Making spaces: Regenerating the profession
Proceedings of the 2004 Australian Teacher Education National Conference

Edited by
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Editorial

The 2004 annual conference of the Australian Teacher Education Association *Making spaces: Regenerating the profession* was held in Bathurst from 7-10 July. The 50 papers in these proceedings are representative of the many outstanding presentations at that conference.

The papers published here were subjected to a thorough and anonymous peer review process. The names of the reviewers appear on page xiii of these proceedings. Using stringent criteria, two reviewers independently commented on each paper. Provisionally accepted papers were then returned to the author(s) for revision before inclusion into the conference proceedings. Of the 59 papers originally submitted for peer review, 50 were finally accepted for publication.

I would like to thank the contributors, reviewers, conference organizing committee and particularly Associate Professor Jo-Anne Reid, Tony Loughland, Wendy Hastings and Fiona Reedy whose support enabled the prompt publication of the proceedings. I am pleased to bring you these proceedings which I believe make stimulating reading and will further challenge us in our education of teachers.

Sharynne McLeod, PhD  
Editor of the 2004 Australian Teacher Education Association Conference Proceedings

School of Teacher Education  
Charles Sturt University  
BATHURST NSW 2795  
June 22, 2004
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Making Spaces: Regenerating the Profession
Charles Sturt University, Bathurst, July 7-10 2004

Introduction from the President
Australian Teacher Education Association

Over the past ten years, as the teaching profession has ‘aged’ and large numbers of teachers have moved towards retirement, a large number of university-based professional teacher educators have aged with it. For Tony Vinson (2003) this is an important consideration “from the point of view of importing new ideas into teacher education’ (Inquiry into the Provision of Public Education in NSW p. 302). Education academics, he says, “have an older and more peaked age profile than all [Australian] university academics […]. In 2001 in New South Wales 74% of education academics, but only 61% of all academics, were aged 45 or older (Vinson 2003, p. 302). For the past four or five years, members of the Executive of the Australian Teacher Education Association have noted with concern the ‘greying’ of ATEA and the decreasing numbers of active and energetic young members involved in the association. For us it seems that our profession is ‘regenerating’, and that our professional associations need to do this too, in the sense of needing to make space for new people, new ideas and new approaches to teacher education.

There are increasing numbers of younger academics employed in university settings as members of the profession, who are keen to move teacher education forward to meet the challenges of preparing teachers for the changing nature of education in Australia in the twenty-first century. But many of these are still in less powerful positions within their university hierarchies, many are still working double and triple time to complete research doctorates to establish their career paths, and many find that there is not much space in which their voices may be heard. Many, too, are left insecure and unsettled by the continuing climate of economic rationalism of academic work practice and regimes of accountability for performance in research and teaching that characterises the higher education sector at the present time.

Key issues from ATEA’s point of view in the current educational agenda include the community of practice ideal for teacher education, and the forms of partnership and situated learning that this entails; including the expansion of teacher education away from a focus on just the school setting. We are also concerned with the professional development and education of teachers in the tertiary sector, and with the increasing involvement of government into debates on teaching standards and the registration of teacher education providers. National priorities, including the establishment of the National Institute for Quality Teaching and School Leadership, which will exert market-driven impact on our practice, do focus on the need for teacher education to move towards change in its scope and processes. Although setting external frameworks on our conversations as a profession, such external interest and investment offers opportunities for speculative and innovative practice and reform. Our conference themes: pedagogical spaces, emotional spaces, sustainable spaces and the unbounded ‘other’ spaces that characterise such review are evocative and generative within the current context – and conference participants have much to say about them.
These proceedings from our 2004 conference, *Making Spaces: Regenerating the Profession*, are one means by which ATEA is working to ensure that the new generation of teacher educators can be heard in the professional arena. Teacher education reform is an ongoing process that needs to be led by the profession itself, on the basis of significant and well-informed research into the material, social, emotional, pedagogical, historical, intellectual and political conditions and knowledge bases that structure and produce educational policy and practice. The papers in this volume range across these areas, encompassing the sorts of concerns and issues that we need to make space for in our curriculum and pedagogy – from mental health to simulated classrooms, from online leadership and multiliteracies to mentoring and course innovation.

On behalf of the ATEA executive committee, who have steered this Association through 2003-2004, I commend these papers to you, as participants in this conference, and as readers beyond this context.

*Jo-Anne Reid*  
*President of ATEA*  
*June 22, 2004*
Designing, implementing and evaluating a mentoring intervention for preservice teachers of primary science

Peter Hudson and Campbell McRobbie
Centre for Mathematics, Science and Technology Education
Queensland University of Technology

The quality of primary science teaching in Australia needs to be enhanced. Sixty final year preservice teachers (control group) and 12 final year preservice teachers (intervention group, who received a mentoring program) were compared after their four-week practicum. A 34-item Likert scale survey measured mentees’ perceptions of their mentoring in primary science teaching on five mentoring factors (i.e., personal attributes, system requirements, pedagogical knowledge, modelling, and feedback), and intervention mentors were interviewed. ANOVA results indicated statistically significant differences on the first four factors for the intervention group. Mentors also claimed the intervention assisted the mentees’ development and their own development in primary science teaching.

Mentoring appears to be a key for enhancing the knowledge and skills of primary teachers, and this includes preservice teachers (Edwards & Collison, 1996; Reiman & Thies-Sprinthall, 1998; Tomlinson, 1995). Educators (e.g., Mullen, Cox, Boettcher & Adoue, 1997) have pushed for new patterns of mentoring within preservice teacher education, particularly emphasising the shift from generic to specific mentoring (Jarvis, McKeon, Coates & Vause, 2001). Identifying effective mentoring practices for primary science teaching may lead towards developing quality mentoring programs for learning how to teach primary science education, consistent with current education reforms (Hudson & Skamp, 2001). However, general primary teachers are not experts in all subjects in the primary school (e.g., Mulholland, 1999) so they must learn to teach more effectively in subject areas where their quality of teaching is low, and because of the general nature of primary teaching, mentors must also learn to mentor in such subject areas. This will require considerable guidance to ensure that mentors are developing not only their mentoring skills but also their own teaching skills in specific subjects such as primary science if mentors and mentees are to be effective in their practices.

The mentoring intervention employed in this study aimed to develop the mentor’s mentoring knowledge and skills of primary science teaching and, simultaneously, enhance the mentee’s primary science teaching. It (referred to as the “mentoring program”) was designed to be collaborative, and was constructed to reflect the development of the factors and associated items contained in a final survey and previously subjected to confirmatory factor analysis (Hudson, Skamp & Brooks, 2004). The factors identified from the literature and pilot studies were: Personal Attributes, System Requirements, Pedagogical Knowledge, Modelling, and Feedback. For example, the attributes and practices associated with the Feedback factor for developing the mentee’s primary science teaching, required a mentor to: (1) articulate expectations (Ganser, 2002), (2) review lesson plans (Monk & Dillon, 1995), (3) observe practice (Tomlinson, 1995), (4) provide oral feedback (Ganser, 1995), (5) provide written
feedback (Rosaen & Lindquist, 1992), and (6) assist the mentee to evaluate teaching practices (Long, 1995).

Each attribute and/or practice on the mentoring program was provided with literature background information and suggested mentoring strategies that aimed to target survey items. For example, Item 32 (factor: Pedagogical Knowledge) states, “During my final professional school experience (i.e., internship/practicum) in primary science teaching my mentor showed me how to assess the students’ learning of science.” Mentoring strategies associated with this item included: linking assessments to outcomes, making references to the syllabus, and demonstrating an assessment procedure (e.g., Figure 1). The aim of this study was to design, implement, and evaluate a mentoring intervention for preservice teachers of primary science.

### Assessing the students’ learning of science

#### Background information
- A mentor with knowledge of assessment methods of science teaching can assist the mentee in sequential and purposeful planning for the teaching of science (Corcoran & Andrew, 1988).
- Gilbert and Qualter (1996) emphasise the importance of assessment for teaching and learning activities within the science curriculum.
- Conducting an assessment of students is addressing a system requirement (Kahle, 1999).
- Mentors need to help mentees “use and respond to a variety of appropriately designed assessments at the beginning of new science topics as well as throughout the teaching process” (Jarvis et al., 2001, p. 10).

#### Strategies
- Tell the mentee that assessments of students are related to the learning outcomes of a science lesson(s). Refer the mentee to the science syllabus.
- Demonstrate how you would assess students’ learning on a science lesson you had just taught, and show how you would record the students’ progress, e.g., checklist.

![Figure 1. Example of background literature relating to an item and associated mentoring strategies related to the “Pedagogical Knowledge” factor](image)

#### Research methods

The study reported here is part of a larger study investigating mentoring in preservice primary science teaching. This was a mixed method study including a randomised two-group posttest only design (control group and intervention group; Hittleman & Simon, 2002) investigating the perceptions of mentees’ mentoring in primary science teaching through a validated survey instrument after their professional experiences and interviews with mentors to elaborate their survey responses. The “Mentoring for
Effective Primary Science Teaching” (MEPST) instrument used in this study evolved through a series of iterations including small-scale interviews with mentors and mentees (n=10), two pilot tests, and confirmatory factor analysis of 331 final year preservice teachers’ perceptions of mentoring preservice primary science teaching. The final theoretical model produced good “goodness of fit” indices ($\chi^2=1335$, df=513, CMIN/df=2.60, IFI=.922, CFI=.921, RMR=.066, RMSEA=.070, p<.001; Hudson et al., 2004; see Kline, 1998; Hair, Anderson, Tatham & Black, 1995), which further supported the previously mentioned five-factor model.

The content of each survey item included a statement that contained a literature-based mentoring skill or practice or behaviour that could be recognised in a word or phrase, and allowed a complete response to the item on a 5-point Likert scale, with response categories “strongly disagree” (1), “disagree” (2), “uncertain” (3), “agree” (4), and “strongly agree” (5). At each stage of these preliminary studies and to further substantiate the instrument’s validity, five specialists (one in the field of science education, one in the field of mentoring, one in the field of survey construction, and two statistical analysts) examined the items on the proposed survey.

A second instrument (MEPST 1) was developed for mentors that mirrored the MEPST instrument with each item. For example, Item 32 on MEPST 1 (mentors) states: “During this last internship/practicum in mentoring primary science teaching, I felt I had shown the mentee how to assess the students’ learning of science.” These 34-item instruments were used to evaluate the mentoring program by eliciting both the mentors’ and mentees’ perceptions of this specific mentoring program in primary science.

The identification of these five factors and associated attributes and practices that may be linked to mentoring in primary science, paved the way for designing a specific mentoring intervention (e.g., Hudson, 2003). The intervention drew upon the literature for devising mentoring strategies that were associated with each item on the survey. Seventy-two mentors were then randomly partnered with final year preservice teachers by university administrative staff. Within this cohort, 12 mentors and their respective mentees were randomly selected as the intervention group and the remainder constituted the control group who proceeded with their traditional mentoring practices.

Participants

Mentors involved in the mentoring program (n=12) and final year preservice teachers (n=72) were administered the appropriate surveys (MEPST 1 & MEPST, respectively) immediately after their four-week professional experience. Statistical comparisons were made between the control group (n=60) and the intervention group (n=12). In addition, intervention group mentors (n=12) provided tape-recorded interviews and written information on the mentoring process within an allocated mentoring booklet, which had literature-based mentoring strategies linked to the five factors described above. The intervention mentors were also asked to comment on the development of their mentees’ teaching skills and their own teaching skills. The effect size of the difference in mean scores was calculated between the control group and intervention group. Interviews with mentors (n=12) focused on the key elements of the mentoring program and the five factors.
Results and discussions

Key findings in this small-scale study relate to mentors’ (n=12) responses to the specific mentoring program and final year preservice teachers’ (control group and intervention group) perceptions of their mentoring in primary science teaching, and are summarised within each of the previously described five factors (Table 1).

Table 1. Descriptive statistics, ANOVA comparisons, and effect sizes of the five factors for control and intervention groups

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<td>4.00 0.62</td>
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<td>0.79</td>
<td>0.76</td>
<td>2.48*</td>
</tr>
<tr>
<td>Modelling</td>
<td>3.18 1.02</td>
<td>3.81 0.62</td>
<td>0.63</td>
<td>0.64</td>
<td>2.06*</td>
</tr>
<tr>
<td>Feedback</td>
<td>3.30 1.10</td>
<td>3.85 0.81</td>
<td>0.54</td>
<td>0.51</td>
<td>1.62</td>
</tr>
</tbody>
</table>

Effect sizes were used to compare MEPST (mentees) data from both the intervention group (n=12) and control group (n=60) on each of the five factors. In educational contexts, “Effect sizes of .20 are considered small; .50, medium; and, .80, large” (Hittleman & Simon, 2002, p. 178). The largest effect size [d] was evident with “System Requirements.” For the intervention group the mean score was 4.14, while the control group mean score was 2.40, which indicated a very large effect size in favour of the intervention group (d=1.47). The effect size was also considered large for “Pedagogical Knowledge” with a control group mean score of 2.88 and an intervention group mean score of 3.67 (d=.76). “Personal Attributes” and “Modelling” would be classified as at least medium effect sizes (d=.55 & d=.51, respectively; Table 1). In this preliminary small-scale comparison, it appeared that differences in the mentees’ perceptions between the traditional mentoring program and the specific mentoring intervention were statistically and educationally significant on four of the five factors in favour of the specific mentoring intervention. While “Feedback” was not statistically significant, it showed medium effect size in favour of the intervention group.

Interview responses

The interview responses from mentors were analysed for common and divergent themes about general perceptions of the intervention program, specific perceptions of the implementation of the mentoring strategies linked to the five factors, and the mentors’ perceptions of the program’s success. Firstly, the mentors and mentees’ roles were specified within the intervention program procedures, which needed to be clear and
attainable so that the participants felt comfortable within their roles. These points were reflected in Mentor 3’s comment, “she [the mentee] felt comfortable because of the way it was set out and the guidelines that were given. It’s not a test. She felt comfortable with that.” Mentors recording of their mentoring interactions within the booklet provided evidence of their mentoring and further demonstrated that the intervention was attainable.

Secondly, the mentoring sessions were designed to promote discussion on science teaching practices across the five theoretical factors towards developing the mentee’s practices. Recorded details on the mentoring sessions indicated that intervention mentors sequentially followed the booklet as intended. In interviews, these sessions were claimed to be “thorough” (Mentor 11), and “clear and concise” (Mentor 2). Mentor 4 stated, “You could really get things pinpointed down to exactly what you needed to find out and what you had to do to go about trying to improve things with the mentee.” Further, the five factors were considered by mentors as providing clear guidance for mentoring in primary science education. For example, Mentor 1 stated, “I think it’s [points to the five-factor model within the mentoring program] a very important part of the process. It reminds you what is actually a part of the program.” When asked if there was a need to clarify any term or issue within the mentoring intervention, two mentors stated “Pedagogical Knowledge” required clearer explanation; this term may not be widely used in the primary education system. Nevertheless, all mentors agreed that the items were relevant to the factors, even though they may not have known the literature associated with each item. For instance, Mentor 2 stated:

I agree they [points to the items that are associated with a factor] fit in with science. I was reading through them and I don’t know Williams and I don’t know Tobin and Fraser but I agree with the things that are there and the strategies that go with them.

Thirdly, the strategies within the mentoring intervention presented a practical focus for developing the mentee’s primary science teaching. Interviews provided an insight into mentors’ views of the mentoring strategies within the mentoring intervention. For example, Mentor 14 claimed that the mentoring strategies assisted “to make sure that you’re on target.” According to Mentor 1, the strategies “made mentoring more focused on what I was trying to get across to her [the mentee] in specific areas of help with her, and particular pointers that she could maybe improve upon in the next lesson on.” Mentor 5 stated, “There was enough detail that allowed me to reflect on what I was supposed to be doing.” Mentors also commented specifically on various mentoring strategies. For example, the mentor-modelled science lesson allowed the mentee to reflect on the mentor’s practices such as planning, preparation, procedures, and classroom management for effective science teaching. Mentor 8 claimed that this strategy allowed the mentee “to focus on certain things when she is doing in her own teaching. I think that gave the mentee a bit of empowerment.”

Finally, and most importantly, several mentors reported that their mentees’ confidence in teaching primary science had increased because of the mentoring intervention. For example, Mentor 4 noted that because of the intervention her mentee “felt very comfortable, and [I am] very confident that she would be able to teach science when she goes out.” Indeed, mentors clearly articulated the success in this intervention program
for both the mentees and mentors’ development. To illustrate further, Mentor 11 claimed that her mentee was developing as a primary science teacher through the intervention program and that she “was getting results with [her] mentoring.” Mentor 5 also stated, “I felt that there was a strong impact on the student teacher’s [mentee’s] performance. The student [mentee] was better planned and organised because of these strategies.” And as a program for developing mentors, Mentor 12 stated, “It made me pick up the syllabus again and re-read it.” Similarly, Mentor 9 declared, “It made me think about science a bit more and how I should be doing it. It helped me to participate in science.”

Hence, mentors’ responses to the mentoring program and the five factors were generally very positive. Even though only two mentors considered themselves reasonably well versed in primary science teaching, all mentors claimed in the interviews that the intervention assisted both the mentees’ development and their own development in primary science teaching. In addition, mentors agreed that the five factors and associated attributes and practices appeared representative of a holistic mentoring program for primary science teaching.

Comparing mentors and mentees’ perceptions

Furthermore, comparisons between MEPST 1 and MEPST for mentors and mentees involved in the intervention indicated their perceptions of the specific mentoring program were similar on each of the five factors. For example, Table 2 indicated that mentors and mentees “agreed” or “strongly agreed” that the mentor provided feedback, modelled science lessons and displayed personal attributes (mean scores of 4.2 to 4.4); mentors also believed that they supported mentees’ growth in “Pedagogical Knowledge” (3.9), but less so with their support of mentees about “System Requirements” (3.4). However, mentors’ scores were only slightly higher than the mentees’ scores on four of the factors; the exception was “System Requirements.” The paired mean differences indicated no significant difference between the perceptions of mentors and mentees, which was most obvious for “Personal Attributes” (mentors’ mean score 4.2; mentees 4.0) and “Pedagogical Knowledge” (3.9 and 3.7). These differences were also noted for “System Requirements” (3.4 and 4.1), “Modelling” (4.2 and 3.9), and “Feedback” (4.4 and 3.9; Table 2).

Further analysis of items with significantly different mean scores showed the direction of mentor/mentee perspectives. There were two items associated with “System Requirements” where mentors believed they had provided less input on school science policy (58% compared to 92%) and the state syllabus (42% compared to 75%) than their mentees perceived. Differences in mean scores for three items associated with “Feedback” were in the other direction with mentors believing they had provided more assistance than mentees perceived with reference to articulating lesson expectations (mentors 92%; mentees 58%); written feedback (83%; 67%), and reviewing lesson plans (92%; 67%). Clearly the participants interpreted these specific practices in different ways for such disparities to be present. However, there was broad agreement between these mentors and mentees on perceptions of the mentors’ practices; therefore there is support that the intervention may have been implemented as designed.
Table 2. Comparing mentees’ and mentors’ perceptions on the five mentoring factors linked to the intervention

<table>
<thead>
<tr>
<th>Mentoring factor</th>
<th>Mentor scores (n=12) MEPST-Mentor Mean (SD)</th>
<th>Mentee scores (n=12) MEPST Mean (SD)</th>
<th>Paired mean differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Attributes</td>
<td>4.19 (0.35)</td>
<td>4.00 (0.62)</td>
<td>0.19</td>
</tr>
<tr>
<td>System Requirements</td>
<td>3.42 (0.78)</td>
<td>4.14 (0.86)</td>
<td>0.72</td>
</tr>
<tr>
<td>Pedagogical Knowledge</td>
<td>3.92 (0.32)</td>
<td>3.67 (0.50)</td>
<td>0.26</td>
</tr>
<tr>
<td>Modelling</td>
<td>4.22 (0.29)</td>
<td>3.81 (0.62)</td>
<td>0.41</td>
</tr>
<tr>
<td>Feedback</td>
<td>4.39 (0.45)</td>
<td>3.85 (0.81)</td>
<td>0.91</td>
</tr>
</tbody>
</table>

Conclusion

The literature suggests that there is considerable potential for mentoring to bring about reform. Yet, the literature also indicates that there have been few programs on specific mentoring in primary science teaching. This study has evaluated a specific mentoring intervention in primary science education derived from the literature and pilot studies, and has shown that specific mentoring involving five factors (namely: personal attributes, system requirements, pedagogical knowledge, modelling, and feedback) and associated practices can positively affect the mentees’ perceptions on the amount of mentoring they receive. It is argued that a mentoring program in primary science teaching may resourcefully support teachers in their roles as mentors. Such a program may be used to pinpoint possible areas for professional development to ensure that mentors are adequately prepared for their complex roles. A specific mentoring program may also enhance the mentors’ confidence in their mentees for teaching science and their confidence in their own mentoring practices. While further studies are needed to determine the improvements in actual teaching practices, this study demonstrates the potential of a specific mentoring program to bring about the much needed reform in primary science education.

References


Education is a multidimensional, dynamic profession about developing and providing learning opportunities in a variety of contexts. However, sometimes the general perception is that careers in education are limited to the classroom and that there are not clear stages for career progression (Newman, 1980). Moreover, when stages are more explicit, the ability to commit to these becomes challenged by the interplay between personal and structural choices (Healy, 1999). This paper stems from the Pathways to Expertise research project undertaken at Charles Darwin University, Australia that aimed to gather insights into the careers of fourteen educators in the Northern Territory, Australia. Although each person’s story was unique in terms of time, place and person, they were all connected by common themes. These themes, which came from a wide range of sources both internal and external to the teller of the story, provided an insight into some of the characteristics that influenced these educators during their careers. This paper explores these themes further.

Background

The Pathways to Expertise research project undertaken at Charles Darwin University Australia was designed in conjunction with the Northern Territory Department of Employment Education and Training. There were two identified outcomes. The first was to produce a book that documented the stories of fourteen Northern Territory Educators. The book was a means to celebrate teachers’ work and to inform new and pre-service teachers about potential career pathways. Secondly, the project aimed to gather insights into the careers of educators in the Northern Territory, Australia and it is this outcome that is discussed here. The approach adopted in this project was similar to that of Abrahão (2002) in that life stories were gathered to “build knowledge focused on the educator’s process of becoming a professional” (p. 8). Hence, for the researchers in this project, what happened inside the classroom was as important as what happened outside it in the development of a career in education.

Career development is often viewed from a positivistic perspective as being a match between personal characteristics and work requirements (Chen, 2003). From this perspective it is relatively easy to predict the paths people will take in their careers through many of the assessment tools used by vocational advisors. However, what this perspective does not account for are the many social variables that impact on careers. These include the interactions people have with others, context and events. These are only considered when career development is viewed from social constructivist perspectives such as those posed by (Cockran, 1997) and (Savickas, 2000). In these later models there is an acknowledgment of a narrative process in career development, a

1 Pathways Team - Dr Diane Szarkowicz, Jennifer Rennie, Karen Sinclair
narrative process that includes a full story and many sub-stories. These stories are constantly evolving as new career experiences are encountered.

Recent discussions in the area of career development have suggested that these two perspectives are not mutually exclusive and that they can be dynamically integrated in some contexts (Chen, 2003). Hence, it is important to consider the personal, the relational and contextual aspects of an individual’s career, and to see these as an ever evolving and self-informing process. While many types of careers have been investigated through one or both of these perspectives, there has not been a substantial amount of investigation into careers in teaching. This may be because careers in teaching do not always follow the linear progression identified in many careers (Lynn, 2002). Indeed, education is not just about teaching in a classroom. It is a multidimensional, dynamic profession about developing and providing learning opportunities in a variety of contexts. However, sometimes the general perception is that careers in education are limited to the classroom and that there are not clear stages for career progression (Newman, 1980). Moreover, when stages are explicit, the ability to commit to these is challenged by the interplay between personal and structural choices (Healy, 1999). That is, the interplay between positivist and social constructivist variables.

In the Northern Territory, the interplay between the various influences on careers can be very pronounced due to the unique physical, social and cultural nature of the region. The Northern Territory is an area of Australia that is characterised by a tropical north and a desert south, vast distances, and diversity in culture. Many people who live in the Northern Territory have come from other areas of Australia, most often from the southern states. For many of these people it is the first time they have lived and worked in a geographically isolated area. With this isolation comes a need to be self reliant, innovative and dedicated. Characteristics desired in all educators, but those that are necessities for success in the Northern Territory.

This paper does not aim to detail the main positivist and social constructivist theoretical approaches, but rather acknowledges their contributions and intends to explore the impact of both objective variables such as personal characteristics, and social variables like context, on a small group of accomplished educators. Moreover, it aims to do this exploration within the words of the educators themselves, within the stories they present of their careers.

**Methods used in this research project**

Everybody who has worked in education in the Northern Territory has at least one good story to share. In this project, the researchers aimed to capture a small sample of life stories about people’s careers as educators in the Northern Territory. The researchers wanted to hear about educators’ careers in their own words. They wanted to know what was important to the educators, what their highs and lows were, and what the story of their career, as opposed to job, was. To capture these words we interviewed the educators in an informal manner about their careers. We conducted face-to-face interviews in a setting determined by the participants. Generally, people were very quick to tell their stories and did not require much prompting or questioning. The
interviews were then adapted from a question and answer format into a collection of narratives. Throughout the process, manuscripts were tossed back and forth between researcher and participant to ensure each voice was captured accurately in each story.

A small sample of fourteen educators, comprising four males and ten females, participated in this study. Two of the female teachers were indigenous. Due to the collaborative nature of this research, fellow educators from the Northern Territory Department of Education identified the participants based on the premise they would have an interesting and diverse story to share. All participants had a minimum of five years classroom based experience and were perceived by their colleagues as successful educators. All participants had a wealth of experience in the classroom although some had moved into administrative roles within education. The sample was not intended to be representative of all educators in the Northern Territory.

The interview transcripts were analysed using a grounded theory approach. This involved working in an inductive manner, attempting to make sense of what participants said before making any theoretical assumptions (Roberts & Taylor, 2002). Coding of the data sets occurred, which involved looking for themes in the data and marking them (Miles & Huberman, 1994). This required repeated readings of the data to familiarise the team with the content. Constant comparative analysis was then applied to the different data sets in order to identify any common themes or processes (Guba & Lincoln, 1981; Lincoln & Guba, 1985). The selection of themes and processes relied on frequency, strength and source. Themes and processes were considered important if they were frequently identified in the data, when the participants place particular emphasis on them and when they were evidenced by more than one participant (Cocklin, 1992).

Results

All of the educators in this study mentioned the importance of their own personal qualities in their careers. These qualities included flexibility, good communication skills, being organised, dedication and a passion for learning. For many of the participants the ability to work with others was extremely important and qualities like being open to others, having respect for others’ opinions and being honest were characteristic of positive relationships with others.

Another variable that characterised many of these educators’ experiences was ‘challenge’. In the context of this study, ‘challenge’ meant working on a task or in a context that presented circumstances most would see as difficult. Not all of these challenges were presented to the educators unexpectedly. In many instances, the participants in this study pursued the challenges themselves. For example, some began looking for new directions in their careers when their current positions no longer offered them personal or intellectual challenges. For others the challenge came when they moved outside of their comfort zone, such as working in a remote community. Further these challenges often began early in their careers as the following data show:

And so here I was first year trained um first year out and um in the um outstation which is now the homelands education centre........Because you didn’t have little schools out there.
I had my four-wheel drive and tray back and I had my swag, which you had to buy
yourself. And you made do with what you had. And I travelled and camped out all week with um people in the bush and um taught sit sitting on a piece of tarpaulin and basically you had to your own resource and you had to be honourable in your teaching and you had to make do with what you had, And um but I look back on it it was the most wonderful time of teaching. And I learned about what you can do and how to be resourceful within yourself as well as in your profession.

Having some form of challenge in their careers, either internally or externally, seemed important to many of the educators who shared their stories with us. Even those who had unexpected challenges presented to them appeared to look back on these times as positive aspects of their career, provided they were given the opportunity to work through the challenges and develop skills for coping with them.

For all of the educators in this study there was a dynamic and evolving nature about their careers. They perceived change as an opportunity for development and some actively sought change. This change was not always positive at the time, but for most looking back, ‘change’ was seen as an important turning point in their careers and as an opportunity to learn and develop as an individual. This was particularly the case when workplaces imposed ‘change’. A source of this type of ‘change’ mentioned in a number of the interviews was departmental restructuring. For example:

I have been able to ride through the changes. I look around at how many were not able to cope with change. There have been three major changes and I have been able to remain a part of them and I think it is because I want to learn.

Most people have role models or people who are influential in their lives. This was no different in the careers of these educators with most indicating there were influential people and people that they looked up to during their professional lives. For most, this was not a single person, but a number of people. Not all of these people had long-term influences on their careers but rather influenced them at particular points along the way. For example, many of the educators talked about people ‘tapping them on the shoulder’ and telling them they should apply for particular positions. Most claimed they would not have applied for the positions had others not encouraged them to do so.

A lot of the jobs I went into people asked me to do them, I didn’t even initially just apply for them. That was where opportunities came, actually from people asking me to do the jobs.

Some attributed their reluctance to apply for positions to a lack of confidence. Many indicated that they needed someone to encourage them when applying for other positions, especially if it related to a promotion. The following excerpts from the data illustrate this:

I am not actually a very confident person in my own abilities - 90% of people who meet me assume differently because I tend to speak my mind. I have to work very hard at pushing myself to offer opinions. Perhaps I have over done this trait, some would say!!!! When you go through key periods in your life when you have a strong support network who are giving you opportunities to learn and to progress, it helps you learn probably more quickly than what you would be able to do on your own and keeps your confidence levels high.
Another reason cited concerning the importance of others telling them about possible positions was due to the busy nature of their current position. For example, some said that the business of a school day did not always enable them to do the work they needed to keep abreast of other job opportunities. Others also discussed how influential people helped them develop specific interests such as working in special education or management.

Regardless of the nature of the involvement of other influential people in the lives of these educators, they all viewed ‘taps on the shoulder’ as a sign of support and encouragement for the work they had been doing and the potential they had.

Self-development was another important aspect of these educators’ careers. They developed themselves professionally in a number of different ways including further study, joining professional associations, attending professional development and becoming involved in research projects. Six of the participants completed some form of further study during their careers. The nature of their experiences in post-graduate education included finishing a Bachelor of Education, completing a Masters degree enrolling in doctoral studies and pursuing a specialist area such as special education. Some found this experience enlightening whilst others were disenchanted. One commented:

I've been doing my Master for two and half years and actually became a little disenchanted with that and the subjects that they were offering and I became involved in a leadership program which will actually help me finish off my masters.

This educator had set very clear goals throughout her career. At the time of the interview, she was an assistant principal who had set her sights clearly on becoming a principal of a school. It was important for her to acquire the skills necessary to achieve her goal. She also believed it important to utilise the skills she had learned during her study in the workplace and she was finding it difficult to do this through the Masters program. Enrolling in the leadership development program was a pathway chosen by this teacher, which allowed her to work towards finishing her Masters and learn skills that were more transferable to her workplace and long-term goals.

Differently, as the following data illustrate, others viewed additional qualifications as a necessary pre-requisite for promotion. Although not explicitly stated, the data suggest they viewed acquiring the degree rather than the ability to transfer the learning from the degree to the workplace, as more important.

What I mean by that is - well, just as a simple and very concrete example - is that a Principal doesn’t need to have anything over an ordinary three year Diploma of Teaching to be a Principal. You don’t need to have done any other study or development. That’s not necessary. I think that’s a mistake. Education should be about education. I think if nothing else we should be able to say that higher qualifications are required, not just say teaching is what we need.

I have been studying since 1995, something like that and I've got three more degrees and that sort of thing - in that sense study’s always been really important. Not because the information has always been the most valuable or at the forefront. Sometimes it has, but not always. But just in terms of structuring myself and giving me a structure to go out and get a lot of information.
The first example suggested that higher positions within a school should require both experience and tertiary qualifications as a pre-requisite for those positions. He was very clear about the fact that the experience of working in schools should not suffice alone. The data in the second example taken from a different interview, suggest that acquiring an extensive knowledge was an important outcome of further study. The ability to transfer this learning to the workplace was desirable but not essential.

For some further study was connected to self-promotion, others suggested it was something to be held in high-esteem, some saw it as a way to improve their classroom practice whilst others saw it as a means to acquire a broad knowledge base.

Involvement in professional associations was another common way these educators developed themselves professionally. Involvement in the associations facilitated their learning, kept them up to date with some of the latest research, widened their professional networks and allowed them to be in touch with what was happening at a National level in education. In addition to joining professional associations, some educators in this study were actively involved in a number of committees and working parties within the school and community. They saw establishing links outside the school as a very important aspect of their career and self-development.

Involvement in projects within the department was another means of learning for these educators. This tended to occur more frequently when CASU (Curriculum Advisory Support Group) was in action. One teacher in particular found that this was the main contributor to her success over the years. It acted like a domino effect leading to further opportunities:

I was showing more initiative and becoming involved in more projects and the more I got involved the more I was approached to be involved in projects.

In addition to opportunities for learning offered outside of their school communities, these educators also took every opportunity to develop themselves professionally through courses, workshops and programs offered by their employer.

Mentors played a significant role in the career development of many of these educators and now most actively fulfil a mentoring role for others. One discussed a significant other during one of her early teaching appointments:

I struck up a great friendship with the head teacher. This was comforting because I didn’t really know anyone in Katherine and she was a great support for me. She was so comfortable with littlies in the classroom. She was also brilliant at integrating her whole program. I learned quite a lot from her, most importantly the ability to relax.

Later in their careers, mentors took on different roles. The following two excerpts from the data illustrate how these educators often went to their mentors for advice about their career moves and how their mentors often played an active role in facilitating these:

So I sought the advice of a principal colleague whose opinion I respected and she bluntly told me I wouldn’t be considered as I hadn’t been a senior teacher in an NT school. In terms of actually career choice, mine has tended to be planned in a way but with a lot of luck in terms of senior mentors assisting me to get to places.
They suggested their mentors were a valuable resource to learn from and bounce ideas off. They also indicated that their mentors displayed trust and confidence in them allowing them to pursue their individual interests and ideas. Finally most of these educators emphasised the fact that their mentors had a significant influence on their careers generally as the following data illustrate:

I think other people have influenced my career a lot. Like I remember not wanting to teach maths until I met a teacher who was a Maths expert and very challenging and scary to our team and there were nine of us in the Year 2/3 area...He was an expert teacher and he definitely influenced my career.

Support from family, colleagues and the workplace was another common thread in these educator’s stories. Although their mentors often provided support, this was slightly different in that those who provided support did not necessarily have a long and lasting impact on their careers. Most indicated that they had a supportive partner or family in the background. Some felt this was extremely important to pursue and achieve their goals.

In addition to support from family, many discussed a number of supportive colleagues in their stories. The support given included such things as providing assistance for new teachers, showing support for trying new ideas, supporting individual needs and supporting their self-development. A supportive school environment was also conducive to the careers of this group of educators. They discussed schools that were ‘warm’ and ‘welcoming’, schools with a ‘strong community base’ and schools that welcomed innovation and new ideas.

Another common thread in the stories, which resulted from self-development activities, mentors and colleagues were networks. All the stories had elements of strong networks. In most cases, these networks spread outside of the school into the community and in some cases further a field into other states. Networking was extremely important as it often led to new career opportunities, involvement in research and invitations to work on various committees and working parties.

Finally, planned and unplanned events outside of the working environment had varying effects on the careers of these educators. Planned events included starting a family or moving to a new location. All of the female educators in this study took maternity leave after the birth of their children. Interestingly they all managed to stay in touch with teaching in some way or another during this time both in and out of schools.

Um so I did secondary teaching for um until Kate was born and um and them took twelve months maternity leave but I was back when she was two months old because again there was a situation came up where they had started a women’s’ resource centre and um early of early entry pre-school and they needed somebody to run that.

Around the same time I was approached by the local TAFE who knew I had teaching qualifications to teach a 12-hour course in Office skills. I wondered how much I’d have to know about an office. I did my usual trick – which is say yes and then madly work out how on earth I was actually going to do this. I was about 2 weeks ahead of the students and I learnt a lot. I had the participants doing some ‘homework’ tasks, assessment tasks, and it was a lot of fun.
Some of the unplanned events included Cyclone Tracy, the Katherine Floods, divorce and illness. The following excerpts from the data provide accounts of one educator’s experience during Cyclone Tracy and the Katherine Floods:

...the hard thing about the Katherine flood was that this time I was a leader in my own right and that is the difference between Cyclone Tracy, when all I had to do was um, I had a series of jobs after Cyclone Tracy, the first one I have talked to you about, the second one was doing a census........ But with the Katherine flood it was really different because I was principal of a school so I had a whole team of staff to look after and um ... my school was flooded but not nearly as bad as Katherine South.

A final note

In other research, teachers’ careers have been compared to a “winding path” (Lynn, 2002) or as to stages in an “unstaged occupation” (Newman, 1980). Further, in the case of women, their careers are often characterised by interruptions or career breaks (Healy, 1999). Despite this, there have been a number of different stages identified within teachers’ careers. Lynn (2002) claimed that teachers move from a ‘pre-service’ stage through to an ‘induction phase’ and on to a stage of ‘competency building’. From there, they experience a period of enthusiasm and growth. A time of ‘career frustration’ often follows this stage. Careers then tend to level out and teachers go through a stage of ‘career stability’, which is followed by ‘career wind-down’ and ‘career exit’ (p.180). These stages do not present themselves in a linear fashion but rather in a dynamic way, which reflect other personal and organizational environmental factors (Lynn, 2002). The sample in this study was too small to generalise about the stages in teachers career although there were clear examples of the pre-service, induction and wind-down phases in these educators’ stories. Interestingly many of the educators in the study still appeared to be in the stage of ‘enthusiasm and growth’ despite the fact that many had twenty plus years working in education and in fact, for some retirement was just around the corner.

Like Lynn, (2002) we too found that personal and environmental factors had a significant impact on the careers of these educators. Many of the common themes identified in this study could be categorised under personal, interpersonal or contextual factors, although these often melded with each other. Whilst this particular group of educators had different and varied career paths, they all shared experiencing success and job satisfaction. Further, we found a number of recurring themes and similarities in their careers. As discussed earlier they shared similar personal characteristics, they enjoyed challenge and change, they displayed commitment through crisis, they valued collaboration and their colleagues and they all viewed self-development as an important aspect of their professional lives. Furthermore, they shared a passion and dedication for the education of others.

2 We acknowledge our colleague Karen Sinclair for initial discussions relating to ‘stage’. This idea has been well developed by Lynn (2002)
References


Co-constructing spaces and selves:  
Problem-based learning and the beginning teacher

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Problem-based pedagogy has the potential for achieving a strong linkage between the underpinning knowledge and skills produced through teacher education programs and the needs of schools, the profession, and the community. In our version of problem-based Learning (PBL), the three ‘spaces’ of professional practice, school concerns and professional knowledge guide a process of professional identity formation and professional problem solving. Importantly, this process involves partnerships between University facilitators and host schools. Qualitative data generated as part of the evaluation of a PBL cohort forms the evidence for this paper and our argument centres on the co-constitutive character of pedagogic spaces and professional selves.

In 2001, a small group of teacher educators began to talk and think about a new design for a teacher education course in initial teacher education at the University of Melbourne:

Beginning teachers face a future that will be very different, in unimagined ways, from the present. They will need to be flexible and cope easily with diversity and ambiguity. They may be asked to function in both local and global communities, arriving at curricular, pedagogical and policy decisions after due consideration of evidence and possibilities. They will be expected to work in innovative ways as members of professional learning teams, actively researching their practice and contributing to the growth of these teams. They will engage in the development of the curriculum, the formation of policy, the improvement of the schools within which they are located, and the enhancement of the teaching profession. … The problems that they will encounter in schools, and in other learning contexts, will require cross-disciplinary thinking and complex problem-defining and resolving skills. These skills are at the heart of teachers’ work (Hildebrand, Mulcahy & Wilks, 2001).

The introduction of the problem-based learning (PBL) cohort at The University of Melbourne grew out of an external and an internal review of the teacher education programmes. Some identified concerns were: the need for a better integration of theory and practice; an increase in the amount of time student teachers spend in schools; and the desire to improve the quality of school-university partnerships. Other Australian universities have initiated similar ventures, linking teacher education programs with schools and using the principles of PBL (Kiggins, 2002).

Making judgements is now viewed as the basis for workplace learning (Beckett & Hager, 2000) and workplaces are recognised as offering the potential for rich learning outcomes. The school as a work environment has particular relevance for the beginning teacher as it offers access to authentic activities that can press learners into problem-solving and professional judgement. The domains of formal learning and informal
learning come together through problem-based learning in a school setting where it can be understood as a form of work-based learning. The learning program is structured in the school context and negotiated around real issues and problems arising from work practices.

PBL is an approach to pedagogy and curriculum design that can be used not only in professional preparation but also for student learning in schools. PBL is not new. Its roots can be traced back through inquiry learning, John Dewey and apprenticeships. As Dewey (1916) conceived it, a problem is always part of a problem-situation that can be improved in some way. The model of PBL that we developed was intended to integrate the content taught through the campus-based curriculum directly with the experiences that student teachers have in schools. The three overlapping spaces of Professional Practice, School Concerns and Professional Knowledge are seen as coming together through the scenarios or problem-situations that the student teachers investigate in partnership with the host schools and the University facilitators. Direct connections between theory and practice in the school community are the central organising framework for the learning that students undertake in their small school-based teams of fellow PBL student teachers. Gale (2000) provides a description of a problem-based approach to pedagogy which is worth quoting in full:

As a first condition, students require real opportunities to explore problems for which they have some interest and ownership. Second, these need to be real problems, drawn from and experienced in contemporary fields, not manufactured (by teachers and/or students) to produce a desired result. Third, the complexity of problems needs to be evident and emphasised, enabling students to recognise that problems have no ‘right’ answers and that their ‘resolution’ is often temporary, that problems often need to be revisited. Fourth, discipline knowledges should not be seen as dominating such ‘resolutions’ but as one way of understanding the issues alongside the ‘life knowledges’ of students, adding to students’ sense of ownership of the issues and the learning process. Finally, and following on from assertions about the value of multiple knowledges in addressing issues, learning experiences in a problem-based approach need to be collective exercises (Gale, 2000, p. 136).

In our approach to PBL, small professional learning teams of students work additional days in schools in between their regular school placements. It is here that beginning teachers encounter, investigate and report on problems of real concern to themselves and to their schools. Through this process we intend that student teachers in the PBL cohort will become capable beginning teachers, self-reflexive professionals, and competent teacher-researchers. There is an ontological dimension to the PBL program. As we seek to show through the empirical material, learning through PBL involves social practices that mobilize and morph identity.

The program creates conditions for various constructions of the self. Central to these constructions are the spaces in which (and across and through which) these new identities form. In our view, identities and spatialities intertwine and interact. In the context of PBL, teacher identities are spun between, or appropriated through, spaces. Spaces too are spun: appropriated or configured. Explaining how this might be so, we turn now to a discussion of identity, spatiality and their intra-action (Barad, 2003).
Self and space: Thinking relationally

Throughout this paper, we take it that a certain reciprocity exists between identity and spatiality. It is now widely held that ‘the self’ and ‘the spatial’ are socially constructed. What is more, ‘space … is central to subjectivity’ (Rose, 1995, p. 335). Our questions concern what (pedagogic) spaces help create which (teacher) identities, and, to what end? Identities are points of temporary attachment to the subject positions that discursive practices construct. As Hall states, ‘identity is a narrative of the self; it’s the story we tell about the self in order to know who we are’ (Hall, 1996, p. 6). Identities are never fixed and unified. A poststructural approach to understanding identity accepts that identities are multiply constructed across different discourses, practices and positions. Discourses make available particular kinds of subject positions and identities, for example, the discourse of PBL positions the learner in particular ways (learner as problem-poser, problem-solver).

Modernist epistemologies treat identity (and spatiality) as something both independent of, and contained within, singular entities, such as individuals (and the nation state). Contrary to this, our broad commitment is to ‘relational thinking’ (Massey, 1999).

Thinking relationally is, in part, an attempt to reimagine the either / or constructions of binary thinking (where the only relations are negative ones of exclusion) and to recognise the important elements of interconnection which go into the construction of any identity (Massey, 1999, p. 12).

More recently, Massey (2003) describes elements of interconnection between knowledge made through fieldwork (‘the world out there’) and knowledge made through processes distant from the field (e.g., ‘the literature’, the academy). This description is set within an investigation of spatialities of knowledge and ‘speaks’ directly to our present concerns. Spatiality is primarily to be seen not in terms of a backdrop against which action takes place but rather in terms of activity or practice. Space is ‘done’: constituted through action, for example, acts of occupancy or appropriation. In exploring theories relevant to the concept of space, Buchanan makes the point that space is

neither a uniform nor a homogeneous object or subject that can be apprehended without difficulty, that can be perceived similarly by all who choose to look … [It is] not a receptacle, a vessel that can be filled and emptied of its contents … space exists only as it is inhabited: it is created by the act of occupancy (Buchanan, 1992, p. 1).

In his book, Lefebvre (1991) works the twin terms of dominated space and appropriated space. Our interest lies in appropriated space: here, how pedagogic spaces are inhabited or used. As Buchanan (1992) has it, occupation constructs space and, we might add, constructs identity – one temporarily inhabits an identity, making a temporary attachment to a subject position.

Bhabha (2001, p. 136), writing in the context of debates around post-coloniality, draws attention to ‘those moments or processes that are produced in the articulation of cultural differences’. These moments are necessarily relational, the locus of their production being, what Bhabha calls, ‘in-between’ spaces:
‘In-between’ spaces provide the terrain for elaborating strategies of selfhood – singular or communal – that initiate new signs of identity, and innovative sites of collaboration, and contestation, in the act of defining the idea of society itself. It is in the emergence of the interstices – the overlap and displacement of domains of difference – that the intersubjective and collective experiences of nationness, community interest, or cultural value are negotiated’ (Bhabha, 2001, pp.136-137, original emphasis).

In the context of PBL, the contesting claims of peers, campus and school might be thought to be negotiated in such spaces. Identity and spatiality are constructed through relations. As our data suggest, a successful enactment of the identity of capable, beginning teacher involves student teachers in mobilising a complex of identifications – with peers, school supervisors, teacher educators – along with appropriating particular pedagogic spaces – the spaces provided by the PBL program and others created by these teachers themselves. As might be expected, different student teachers have different relationships with PBL and with the pedagogical spaces it provides.

Data and methods

The empirical data on which this paper is based consists of ten individual interviews with students undertaking the PBL program, three individual interviews with school staff and a focus group interview with three university facilitators. The interview data were collected as part of an independent evaluation of the initial program. All interviewees were volunteers and their voices are presented under pseudonyms. As an evaluative inquiry (Preskill & Torres, 1999), the focus was on understanding participants’ experiences related to PBL in their own terms. The average length of these interviews was 45 minutes. Based on a prepared protocol, these interviews were audio-taped and fully transcribed. Each transcript was analysed using qualitative methods of content analysis. Transcripts were first read a number of times to interpret overall patterns of meaning, then divided into discrete meaning units which were coded at increasing levels of abstraction to identify repeating ideas, topic categories and themes. Transcript themes were compared across the student and staff groups to identify individual differences and patterns of similarity. Further to the interviews, analyses were made of written material provided by students with respect to their initial reasons for choosing the PBL option, along with their expectations, and final evaluations. Observational data collected over the course of the PBL programme (during 2001-2003 inclusive) were also analysed using the qualitative analysis methods reported above.

‘Doing’ problem-based learning: Appropriating spaces/performing selves

In this section, we draw on accounts of the learning experiences of two student teachers as case studies, to examine further the relationship between professional identity formation, pedagogy and spatiality. These case examples are not taken to be representative of the experiences of other members of the PBL cohort, nor are they ‘realist’ windows onto the experience of learning to teach through PBL. Rather, they are vignettes, selected to show the spaces in and through which selves are formed. Our main interest concerns identity formation and the appropriation of pedagogic spaces.
Asha’s story: ‘I liked the confusion at times’

Asha and Alicia (see Alicia’s story below) are members of the same small school-based PBL team. Initially, Asha tells of tensions when deciding to opt into the PBL program:

If … you’re in a situation where you’re not always comfortable with the supervisor that you’ve got … that’s a big issue. And a lot of people that I spoke to (who) weren’t contemplating doing PBL said to me ‘Why would you do it? You’re going to be in the same school twice. What happens if you don’t like your supervisor?’ I mean it’s not a question of liking or disliking the supervisor. At the end of the day you are trying to get the best possible marks. You’re trying to make the most out of your situation.

As it happened, Asha managed this (and other) tensions particularly successfully. She did indeed make the most out of her situation, moving on, after her studies, to a full-time teaching position in a prestigious private school. How was this movement accomplished? Asha reports a shift from the formal and ‘simplistic structure’ of the mainstream ‘system’ to ‘everything … alive and real’:

I don’t think I missed out on anything from the other system. The only thing I did envy from the other system was the simplicity of it. The linear structure. There was no linear, simplistic structure in doing the PBL. Everything was alive and real rather than a common … you know, you come to Uni and you do your straightforward class and you go home. There was none of that.

In identifying with the non-linear structure that the PBL program provides, Asha appears to oscillate between ‘envy’ of order and fondness for disorder: ‘I liked the confusion at times’. It is now understood that emotionalities are produced and play out in educational settings (McFadden & Munns, 2002) and that emotional spaces are significant in identity formation and change. Asha’s evident success in learning to teach is due, in part, to her acknowledgement of her emotional needs and her use of supportive spaces:

Making a student feel important is very important because as a student you’re walking around and you have to ask all these tough questions to people that are so much more experienced than you. You do need a bit of resilience, you do need to feel supported. For instance at [school X] with [supervisor Y], even though I didn’t always have him around, when I did, after the meeting, I always felt important. I always felt good. So that was something very useful. And that’s why I valued his contribution so much.

Her emerging sense of self as a teacher is secured through initiating learning in informal spaces such as ‘after the meeting’ where she can ‘hang’ with her supervisor:

Teachers are very busy. … You don’t really have a lot of meeting(s) with teachers just on PBL issues. But you soak it all up. You soak it up especially during your rounds. You try and establish relationships. … I found it was my initiative that brought out anything that happened. My school contact person was a very, very, very busy person. He does everything by schedule and he’s a fantastic dynamo of a person. But, at the end of the day, again, he had a lot of commitments. He did try to share his time with me but I almost had to soak it up through just his presence.

University facilitators also play a significant role:
[The facilitator] picked up the mood of the group quite well. And she would often get us to work with that and, finally, with those, sometimes, mood issues which you sort of don’t have words for. You knew; you just felt things.

Pedagogic spaces are not only social – ‘You try and establish relationships’ – but also embodied: ‘He did try to share his time with me but I almost had to soak it up through just his presence’. Contemporary conditions of teachers’ work do not lend themselves to formal meetings with student teachers; rather, these teachers build knowledge and skill in a tacit, concrete, bodily way. Selves take the form of learnt capacities embedded in a shifting set of spaces – both the formal designated spaces of professional knowledge, professional practice and so on and the non-formal emergent spaces of the tacit and the mundane:

The learning experience I had was fantastic. I learnt things which I wasn’t always aware I was learning. Again I just soaked up so much from other PBL students, from staff at schools, from actually doing my assignments, from my facilitator. Drawing all the information together for tasks, for looking at problems, for coming up with solutions. So there was a lot of hands on learning. There was a lot of practical learning.

Alicia’s story: ‘I was almost surrogate staff’

For Alicia, one of Asha’s peers, identity appears to be a matter of linking ‘knowings’ of various kinds:

Really worthwhile learning is when it almost becomes a part of you. You know, the whole experience becomes a part of you and stuff. And I think that is what the PBL is like. Because you’ve got all these ideas and you’ve linked them to memories, and things that happened to you, and things that you had to work out the hard way, and things that you saw, and things that you felt. It’s real context-based and multiple intelligence learning.

Practical understandings formed in the sociality of ‘talk spaces’ emerge as important:

We were always talking all the time. That communication. But that’s where you do get a lot of your ideas from. And those ideas were the ones that actually helped me when I did go to lectures and listen to the more theoretical stuff and when I did look at the literature. And I often found that most of us … we’d almost thought of all the ideas in the literature before we read them. And when we read them it was a bit more like there was a recognition … that, yes, they’re useful ideas because we thought of them ourselves pretty much. We’ve seen that they occur, rather than reading the literature and thinking: ‘Oh this is something that I’ve got to make myself learn and understand’.

Critical understandings are emergent; importantly, they are achieved in conjunction with others: ‘We’d almost thought of all the ideas in the literature before we read them’. The physical proximity to the school that Alicia enjoyed was a formative influence on her learning: ‘I actually lived close to the school which really helped … I was hanging around all the time. I was going in and out of the place all the time. … I was almost surrogate staff’. Working the disparate spaces of theory and practice together, there is a strong sense of ownership of professional knowledge and practice: ‘Just being immersed in real schools, it meant that when I looked at the theory stuff in the readings I was able to quickly see the things that I could use’. For Alicia, the pedagogic spaces of problem-based learning present a paradox:
I think that part of the beauty of the PBL program is the ‘just-in-time’ [aspect] and part of the terror of the PBL program is the ‘just-in-time’ stuff. The beauty is when you do finally work something out because you’ve got your practical experience and all those things you’ve seen and you’ve felt, and then you’ve got the literature, you can tie it all together. You feel like ‘Oh yeah, I really know this’. The difficulty of it is, because of the ‘just-in-time’ [aspect], it’s a little bit like you’re struggling to put it together. You’ve got all these questions in your mind all the time.

Buchanan claims that ‘different occupants have different relationships with space that transform space according to the acts of occupancy’ (1992, p. 2). In our view, Alicia inhabits the pedagogic spaces of PBL very successfully. Shifting between ‘the beauty’ and ‘the terror’ spaces, she seeks to have theory and practice ‘speak’ to each other. The links between professional knowledge and professional practice are abundantly clear: ‘I’ve got a fairly good knowledge of what [PBL] means. I’d be happy to teach students in that sort of way next year’.

Pedagogies in/of motion

A successful enactment of the identity of ‘beginning teacher’ would appear to involve mobilising a complex of identifications — with peers, school supervisors, teacher educators, ‘the more theoretical stuff’, practical experience, ‘things you’ve seen and you’ve felt’ — in response to shifting contexts. This mobilisation or ‘self work’ is largely hidden from view. Among other things, it involves working the space between sites of learning: ‘making a link between the learning on campus and learning in schools. I was constantly reflecting on that’ (Asha). The formation of professional identity through PBL resides not only in designated spaces like Professional Practice, School Concerns and Professional Knowledge but also in ‘between spaces’ created by learners themselves.

In the context of PBL, teacher identities are spun between, or appropriated through, spaces. Spaces too are spun: appropriated or configured. The identities that Asha forms in pursuing the problems presented in PBL are conditional upon the opportunity afforded by her practice school to ‘walk around and … ask all these tough questions’. The professional self that Alicia fashions in her passage through PBL is produced through the shifting spaces of ‘struggling to put it together’ and ‘finally work(ing) something out’. Pedagogy is spatially constructed and distributed: spread out over students, staff and sites. Pedagogy (or, better, pedagogies) emerges as an interactional achievement that involves a constant weaving to and fro between spaces and selves.

Implications for teacher education: Regenerating the profession

In the Australian context, there has been much discussion recently around links between schools and teacher education institutions. The technical-rational basis of much of this discussion has meant that attention has been directed to the outcomes of linkages and away from the pedagogic processes that secure these outcomes. Accordingly, we have sought in this paper to redirect attention to questions of process. Pedagogy is primarily to be seen not in terms of intrinsic capabilities or potentialities of teachers but rather performances of teaching and learning practice in ecologies of practice (Stronach, Corbin, McNamara, Stark & Warne, 2002).
PBL can be understood as a hybrid pedagogic approach. In encouraging student teachers to re-draw the institutional boundaries of campus and school, it makes space for and, therefore, provides a sense of belonging, for a range of teacher identities (institutional and other). Moving backwards and forwards between locales, these teachers make a ‘crossed’ passage into the profession. Notably, this approach attempts to prevent identities at either end of this passage from settling into the polarities of theory and practice, of academic knowing and practical knowing. It creates a space in which different social identities (teacher researcher, teacher practitioner) are constituted and kept in play. The interdependency of locations and the fluidity of identifications have been argued throughout. The regeneration of the profession of teacher education resides, in part, in this interdependency and fluidity.

References


Leadership on-line: Using a computer-mediated role play to promote critical thinking

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This paper reports on what we learned from our introduction of a computer-mediated role play into a Leadership and Advocacy course. Our interactive social environment contained leadership challenges for our Bachelor of Early Childhood Studies students. Students were asked to respond, in role, to an e-incident at a child care centre. Following the role play simulation the students met, in character and in real time, at a Community Conference to thrash out the issues that had arisen during the role play. The insights gained from this meeting and the students’ evaluation of the simulation highlighted many benefits of e-learning. However, issues associated with the combination of problem-based learning with on-line entertainment, and how to challenge thinking about values and promote others’ points of view without emotional harm, also surfaced. Both staff and student understandings of the benefits and pitfalls of the e-learning environment were expanded.

This paper describes and analyses a computer mediated role-play on leadership issues in the preparation of early childhood leaders. Leadership literature rarely examines the nexus between leadership growth and leadership training. Early childhood research suggests that the positions of leadership in the field tend to be held by accidental leaders with little or no training (Ebbeck & Waniganayake, 2003; Hayden, 1996; Rodd, 1998). This paper shows how leadership training can be facilitated by using an innovative on-line role-play and presents feedback from the future leaders who experienced it.

Leadership issues are inextricably linked with decision-making and working with others. The on-line role-play simulation allowed us to gain access to an appropriate social space for students to engage their critical thinking and decision-making skills necessary to become leaders in early childhood (Landow, 1997; Manovich, 2001). Through the on-line role-play a “community of inquiry” (Lipman in Wilks, 1995) was created. Here, participants began to think and respond in a reflective manner, respectful of diverse perspectives and the need to consider alternative points of view. By stepping into the roles of key stakeholders (n=10), participants (n=120) experienced the full impact of exercising the rights and responsibilities that are aligned with specific roles. In response to the evolving story line, the ‘game’ provided an authentic context for more reflective dialogue between participants on issues of concern.

Insights gained from the evaluation of this simulation conducted with final year undergraduate students at the University of Melbourne, Australia, highlight the benefits and challenges of e-learning that combines ‘playing’ (in the tri-fold senses of having fun, play acting and playing with possibilities) with critical thinking.
The creating thinking professionals project

Funded by a research grant from the Faculty of Education at the University of Melbourne, the primary purpose of the Creating Thinking Professionals (CTP) Project was the development of an interactive Web environment to support the teaching and learning of early childhood education students. Specific aims and educational objectives included:

- To enable students to engage in critical thinking when relating to professional issues/concerns that occur within early childhood settings;
- To enhance teaching and learning of professional concepts through problem based learning strategies allowing students to access contexts as if they were direct participants in the ongoing dialogue;
- To facilitate better access and understanding about critical debates in education though scenarios encountered by early childhood educators.

The role play mode reflected our belief in the effectiveness of learning through play and problem solving. This approach gave us the opportunity to incorporate our philosophy into Early Childhood training. The delivery of the program to students commenced during 2002 using the role-play simulation and was repeated in 2003. It involved fourth year students enrolled in the Bachelor of Early Childhood Studies in a subject dealing with leadership in early childhood. The course included issues involved in: (a) working with parents, colleagues and other professionals, (b) developing networks and working with government and non-government agencies, (c) methods of communication and identification of typical problems associated with decision-making in children services centres, and (d) policy development and the role early childhood professionals may play as advocates in a wider societal context.

An on-line evaluation instrument was included in the site to obtain objective qualitative and quantitative feedback from students. The data was used to assess the overall effectiveness of the simulation as an innovative IT-based teaching/learning framework.

Role-play simulation

An interactive Website generated by the Fablusi Role-play Software Pty Ltd provided the platform for this project. Available on-line at www.ausis.com.au/polsim/adc/rssc/article2.html. The in-built design features of the Fablusi platform was judged to most suit the objective of the CTP project as it enabled the generation of an interactive web environment supporting the role-play. Other features included:

- Authentic and active narrative: both engaging and entertaining
- Anonymity: role specific and unique user interface
- Adaptability: run multiple groups at the same time
- Archive: of all material for research and evaluation
- Additional learning resources: updated any time
- Administrative support: on going and integrated

The platform provided the lecturers with progressive overviews of students’ work that permitted focus on identifying changes in students’ understanding, commitment,
reflections on their learning, and feedback. The university staff overseeing the role play were able to adapt learning activities in response to the continuing dialogue online.

Called A Different Lunch, the role-play involved professional dilemmas that were centred on social diversity. The start-up scenario portrayed an altercation between a member of staff and a parent at a fictional child-care centre. It highlighted cross cultural communication issues and policy, raising questions dealing with the appropriate behaviour of staff and parents, appropriate policy development regarding food, relationships with other professionals in government and media, and other issues. Photographic images, with voice-overs, provided a short background narrative on each character. The scenario and pics were given to the students on a CD.

The on-line role-play simulation involved students accessing the site daily. All students were required to attend a training session before the simulation started, and also participate in a post-role-play ‘community meeting’ at the conclusion of the simulation. During the simulation students were engaged in a range of learning experiences that combined open-ended tasks and reflective activities. Opportunities to chat on-line were provided by sites such as the staff room. On-line journal articles and government documents such as Licensing Regulations and the UN Convention on the Rights of the Child, were linked to the Website.

Students, in teams of 2-3 players, chose to play one of 10 characters associated with the incident described above, and the role-play was on line and interactive for three weeks. Over 21 days, students had to act out their roles in response to the evolving story line. Students needed to make decisions concerning these issues, to liaise with government and media agencies, and develop appropriate policies for the child-care centre.

Our aim was to promote critical thinking about leadership issues and to have students examine their own and others’ professional and moral values (Rodd, 1998; Sumison, 1999). Their combined actions directed the path of the role-play - there was no script to follow. By playing the role of a child, a parent, centre staff, a management committee member, a government adviser or a newspaper journalist, students could step into the shoes of another person and “adopt” a perspective different to their own. Including the time spent fleshing out and playing their roles, the students were engaged in the activity for eight weeks. They worked both individually and in their role-groups to complete assessment requirements.

**Evaluation of the simulation**

Though to us the role-play indeed seems to have met the objectives of the project, it was important to find out whether the students actually thought the simulation was effective in helping them learn about issues associated with early childhood leadership. Students were asked to evaluate the usefulness of the role-play simulation for learning and reflection, and their responses were collated and analysed. On-line qualitative and quantitative evaluation was built into the website. There were both “tick-the box” questions and opportunities for written elaboration. Selected findings are presented and discussed below.
A majority of students (86%) stated that the simulation was effective in terms of learning about the impact of human rights issues. Similarly 86% of the participants agreed that the simulation had been successful in raising their awareness of cultural diversity issues. Only 2% believed that the simulation had not assisted their learning about cultural diversity. 95% of the respondents believed that the simulation had been effective in learning about the issues and pressures involved in working in the early childhood field.

Learning to work effectively with families is one of the fundamental aspects of being a leader in the early childhood field. It was therefore particularly gratifying for us to note that 91% of the students believed that this simulation had facilitated the growth of skills and knowledge pertaining to the development of partnerships with families.

Using technology in teacher education - some continuing conundrums

While it was clear from the data collected that the overwhelming majority of students felt that the simulation was an effective way to learn about leadership issues in Early Childhood, the role play raised a number of issues that we felt that we as educators needed to address. Following are a few of the more salient issues that the use of this technology raised.

Risk management

Initiating and responding to change are integral dimensions of contemporary leadership in the real world (Sciarra & Dorsey, 2002). Effective transformational leaders work with others to stimulate debate and seek innovative solutions to challenges like those presented in the Different Lunch scenario.

The students’ solutions were not guaranteed to succeed in the real world and the consequences of their decisions could have flow-on effects to both themselves and their community. Because their actions were contained in the simulated world, we believed their decisions and expressed thoughts had an effect on others without the risks associated with such actions in the real world. However, the community conference held at the end of the simulation showed that students had taken issues to heart and there had been emotional pain and anguish!

This meant that, along with training the students to use the e-site, we should perhaps have included preliminary discussions about trying not to take the consequences of their role’s actions, and other roles’ re-actions, on a personal level, but rather view these consequences at the level of the simulation. This raises a dilemma. On the one hand we would be saying to them it is important to remember to maintain a clear separation between themselves and the role they were playing. On the other hand, a major reason for the role play and character assignment was that we wanted them to become emotionally involved.

Having the expectation that some of the Course Readings were read prior to the role play (e.g. those covering change, power and communication issues – Jorde Bloom, 2000; Copeland & Bruno, 2001) might have better prepared the students for the issues
they were to confront. However, this raises another dilemma – we did not necessarily want them to have reflected on the issues ahead of time, but rather experience the situation and then have the Readings inform their experiences.

Traditional verses e-learning

Most students quickly acquired the necessary technical skills to manipulate and direct the role-play, and the evaluations suggested that the change from paper-based tasks to on-line experiential learning was an easy one. The data indicated the potential for computer-mediated simulations to offer skill advancement. 93% of students thought the simulation technology helped them view the presentation of their work for assessment more as a process than would have been the case with paper-based assessment. 84% of the students felt that the technology helped them process and organize a very large amount of information about the complexities of an early childhood professional’s work.

However, as educators, we need to be aware that such a change may be easy for everyone. Patterns of social behaviour that have been acquired through everyday practice and internalised over time are often difficult to abandon. There is the danger that both staff and students resume old ways of operating – mainly because of time constraints.

Communication and the social construction of knowledge

Self-knowledge arises in collaboration with others as it allows for the better exploration of ideas, beliefs, values, problems and solutions (Wilks, 2004). Collaboration and interaction, as has been argued by social constructivists (see Linser & Ip, 2002) and philosophical inquiry protagonists, not only facilitate learning, but also constitute the essential context in the production of knowledge and learning. However, even at the best of times, talking about values is not easy, and asking students to consider rights and ethics for instance, requires them to be engaged “in the kinds of discussions they seem to want to avoid” (Wilks, 1993, p. 1).

The Fablusi platform enabled the creation of a communication environment that simulated the spaces found in a childhood services centre. The role-play simulation created three levels for the students to interact: the interaction between roles, the interaction between students playing a particular role as a team, and the interaction between students and teachers. We hoped that by playing a role where ideas, beliefs, and values had been expressed or implied by the characters, the students would explore these views without the emotional difficulties associated with holding them personally. Because roles were played by teams, values had to be discussed and a position decided (even if not accepted by each member of the group) in order to proceed. We believed this would lead to discussions and disagreements about points of view, thus deepening the experience. Each character was required to send emails to either solicit a response from others, or in response to other characters’ emails.

The findings from the first evaluations surprisingly showed that the use of this tiered communication technology facilitated greater active interactions between students, but
not between students and teachers. 78% of participants thought the technology was instrumental in enabling interaction with peers. However, only 44% of the students stated that the technology was instrumental in interacting with their teachers. This was surprising because the teachers were the simulation moderators. We expected that students would feel that they had continuous access to us. One explanation is that the teachers were not overtly present. As moderators we oversaw the learning process rather than taking an explicit role of teaching. Perhaps students perceived the role of the moderator as significantly different from being a teacher.

This raised a number of interesting issues about the pedagogy of the simulation and more specifically about the relation between teacher/lecturer/tutor versus moderator. More broadly it raised the issue of authority relations in the learning process. We are exploring this dimension currently, but believe the problem is associated with the ongoing conflict of teachers’ roles - moderator/facilitator, and marker. To assist interaction, building in a role like an advocate or adviser to whom students could go with questions, requests for clarification and guidance, is an achievable option.

Paralinguistic and non-verbal communication cues

Though we can create environments that simulate reality, features such as the warmth or coldness resulting from a human embrace, or a gesture indicating anger cannot be fully realised by engaging in a computer mediated role-play. Strategies such as scripting ‘staging cues’ like in a written play should have been referred to and encouraged. For example, if students-in-role wrote in their email: “I don’t think so [walking out and slamming the door.]”, both mood and “voice” would be clear. This kind of sub-text in some way can overcome communication issues associated with clarity of intent/tenor of voice difficulty. However ‘staging cues’ can never reproduce the full gamut of what goes on at spontaneous paralinguistic level.

Teamwork

Another reason for having students work in roles as teams was that we anticipated it would reduce the work load. The student evaluations of their experience verified that working in small teams would help in coping with the amount of work (83%). The second assumption we made, that the simulation would help them develop their ideas, was also borne out by the results. The majority, (81%), thought that playing the roles as a team was useful in that it enabled them to develop ideas with their partners. Only 14% preferred playing on their own rather than as a team.

As the simulation did not require any physical face-to-face meeting amongst participants, it might be claimed that it encouraged isolation and non-collaborative practice. It was perhaps fortunate that our students generally met face-to-face at least twice a week. Strategies to ensure the students communicated in person during the role-play should have been included. We should have specified a set number of meetings.
Access and equity

External factors of availability and access to appropriate technology hampered some students’ participation in the simulation in two major ways. These students did not have access to a computer at their placement site or at home and therefore could not access the Net.

Access limitations of the technology obviously hinder learning rather than enhance it. We could have been more mindful about the extent to which we considered access – particularly as the students were completing a practicum at the time of the simulation. The digital divide is one way of describing poverty, and our failure to address not only the skills and resource implications, but also attitudes and beliefs about using technology, cut across equity considerations and resulted in dis-empowering some learners.

Conclusion

Whilst students’ evaluations reflected a high level of satisfaction in terms of understanding the divergent roles and responsibilities of early childhood professionals, it is difficult from our data to assess the extent to which this learning will be effective in the long term. We certainly achieved some of our aims. This included getting them to experience, think and argue about the issues and dilemmas associated with their future roles. We now need to research the long-term implications of our technology-mediated pedagogy. We now need to interview them (as Early Childhood professionals) about whether engagement in the role play helped them to cope with or think more clearly about dilemmas and conflicts that have arisen. As teacher educators we need to ensure that we are not simply being seduced by technology, but are providing an education that is appropriate for the new era of e-world learning.

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References


Ready and waiting:
Beginning primary teachers in NSW

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In this paper, we report on early findings of an ongoing research project into the experiences of beginning teachers in NSW in the course of their first two years in the profession. We argue that from the data already available from case studies and a state-wide survey it appears that the employment context in which beginning teachers take up their profession has a significant effect on the capacity of teachers to develop the craft of teaching; on their continuing commitment to the profession; and on their self-confidence and self-image as teachers. This situation has implications for beginning teachers themselves; for the schools in which they work and the students with whom they work; for employing bodies; and for teacher education institutions preparing students to be teachers.

Beginning teachers in NSW enter the profession ready to teach. They define teaching as helping children to learn, and in their ideal of teaching inheres an image of the teacher as an adult in close and purposeful relationship with a group of children who form “their” class. Much of the literature on beginning teaching, for example, Borko and Putnam (1996), Reynolds (1995), Bullough, Knowles, and Crow (1992) and Bullough (1997), suggests this image is the norm: beginning teachers are those who are appointed to particular schools and responsible for a class of their own. Novice teachers are therefore those whose trials and tribulations in learning to teach are resolved (or not) in the context of this class and this school through personal reflection on the confluence of knowledge gained in teacher education courses and the reality of day to day classroom experience. For some, this image becomes their own reality early in their careers; for many others, the reality is but a pale reflection of the image, a less than ideal reality which leaves many of them disillusioned as they struggle to manage in relief teaching situations where much of what they have learned cannot be practised or developed and some is simply lost.

The purpose of the study

This paper and the associated presentation report on part of a wider study which investigated the experience of beginning teaching in schools across New South Wales in 2003, as reported by teachers in their initial year in the profession. The study sought to draw out the effects of variation in employment context on teacher socialization, professional learning and professional self-identity.

Methodology

The study used both quantitative and qualitative methods, resulting in the development of complementary sets of data pertaining to the process of beginning teaching. The broad state-wide picture of beginning teachers was drawn from the responses of
teachers located in different geographical and socio-economic regions of New South Wales to a postal questionnaire. The more personal account from the perspective of individual teachers who were engaged in the process of adapting from university student to beginning teacher was elicited from eight beginning teachers who agreed to participate in a collective case study (Stake, 2000) which utilised interviews and participant observation as the primary data collection methods.

**Survey-questionnaire: The state-wide picture**

In order to make contact with “first year out” teachers who were working in permanent, temporary and casual positions in public primary and central schools throughout New South Wales, teachers were approached through two sets of gatekeepers: (former) District Superintendents and school principals in the NSW Department of Education and Training. From an initial population of 1709 schools representing 38 of the 40 districts, 992 schools (58%) responded. Of these, 243 (25%) were identified as having beginning teachers on staff. Questionnaires were subsequently sent to 383 beginning teachers through their principals and 232 of these beginning teachers (61%) responded. Eighty-seven percent of respondents were female and 20% were over thirty years of age at the end of their first year of teaching. Questionnaires from the remaining two metropolitan districts continued to arrive during April 2004.

**Entering the profession**

Of the 232 entrants to teaching represented by the survey respondents, only 62 (26%) began their first year of teaching in the same way as previous generations of NSW teachers had done, by teaching on their own class in one school from the beginning of their careers, with the prospect of continuing at that school in the following year. The remaining 74% of survey respondents began their careers in fragmented teaching situations quite unlike that generally reported in the literature on beginning teachers.

The first problem confronting beginning primary teachers in New South Wales is therefore that of gaining employment in a situation of apparent over-supply. The teaching experience of survey respondents suggested a three-tier pattern of employment. Ninety teachers (39% of respondents) received full-time permanent appointments to Department of Education and Training schools, 79 of whom (88%) were appointed in the course of the year under the Graduate Recruitment program, known colloquially as the “targeted grad” program. While a further 31% of respondents taught in a temporary, class based relieving position for most of their first year, there remained 30% of survey respondents who had spent their first year working in day-to-day casual situations or taking short blocks of relief work.

**The geographic location of beginning teachers**

The tendency of students to seek initial placements close to, or in a similar geographic location to that of their teacher education institution, may have placed limitations on the opportunities for permanent employment available to novice teachers.
Table 1. Movement between university and first teaching position

<table>
<thead>
<tr>
<th>Location of teacher education institution</th>
<th>Teachers in metropolitan schools</th>
<th>%</th>
<th>Teachers in country schools</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>9</td>
<td>6</td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>Metropolitan</td>
<td>113</td>
<td>80</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Other (e.g., interstate)</td>
<td>19</td>
<td>14</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>100</td>
<td>91</td>
<td>100</td>
</tr>
</tbody>
</table>

As well, the returns from principals of coastal district schools confirmed the commonly held view amongst practising teachers that there are few vacancies for staff of any level of experience in schools along the coast.

Table 2. Geographic location of beginning teachers

<table>
<thead>
<tr>
<th>Area of NSW Districts</th>
<th>Districts surveyed</th>
<th>Schools which responded</th>
<th>Respondent schools with beginning teachers</th>
<th>Beginning teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>16</td>
<td>726</td>
<td>398</td>
<td>132</td>
</tr>
<tr>
<td>Coastal</td>
<td>9</td>
<td>413</td>
<td>222</td>
<td>30</td>
</tr>
<tr>
<td>Western</td>
<td>13</td>
<td>570</td>
<td>372</td>
<td>81</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>1709</td>
<td>992</td>
<td>243</td>
</tr>
</tbody>
</table>

This was borne out for beginning teachers by the survey results. Of the 38 teachers identified by principals in coastal schools, 19 responded to the questionnaire. Of these 19, eight were appointed as targeted graduates, none were in full-time class based positions as temporary teachers and the remaining 11 were teaching in a mixture of day-to-day casual relief positions interspersed with short blocks of relief work.

Case studies: The individual and personal view

Eight self-selected students at a rural university responded to an invitation to participate in the case studies. Data were drawn from initial semi-structured interviews (either individual or in a focus group setting) held prior to the commencement of teaching, followed by two personal recount interviews conducted over the course of the “first year out” with each teacher. Each initial recount interview took place after four to six weeks of teaching and was a personal recount of the “settling in” phase. The subsequent interview, held after a further six months of teaching, combined participant observation of the classroom by the researcher, in-depth interviewing, and stimulated recall and focused on the teacher’s decision-making and reasoning in the course of the teaching day. As well, during each of these interviews, each teacher constructed and explained a concept map (Morine-Dershimer, 1989; Mostert & Tankersley, 1994) giving a “snapshot” of their own changing views on “teaching”. Interviews were audio-taped, transcribed and returned to participants for verification. Preliminary analysis of interview data was supported by the use of the NUD*IST software program to code, categorise and compare data.
Preliminary findings

Professional socialization

Huberman, Grounauer, and Marti (1993) portrayed the career of a teacher as a series of developmental phases. The “career entry” phase was characterised by “concurrent themes of ‘survival’ and ‘discovery’ during which “survival” was often a time of self-doubt and “reality shock” (Huberman et al., 1993, p. 36). While both permanent and casual teachers experience “reality shock” the compensatory experiences of discovery remain unavailable to those whose employment fragments their initial experience of teaching.

Three beginning teachers who participated in the case studies, known pseudonymously as Alison, Bianca and Cate, together represented the spectrum of experience of those in both the case studies and the survey cohort. Alison accepted a permanent position in a large, interstate metropolitan school rather than wait for an appointment in her preferred rural location. Cate’s experience comprised initial daily casual work and a short block of temporary work followed by a permanent appointment to a school as a targeted graduate. Bianca remained a casual relief teacher throughout the year and spent her initial professional year adjusting on a daily basis to the problems of “minding” the unknown children of unknown colleagues.

Even before graduation, the perceived lack of opportunity to teach their “own” students had created feelings of resentment, anger and some disillusionment in the case study participants, feelings that were echoed by survey participants as the year progressed.

Of the 60 of us here, and I think the vast majority of us are very, very good students you know, and really committed teachers and things like that, and the fact that only one person has been offered a job so far I think is actually pretty reprehensible…like, we’re here, we’re eager, and we really want to get out there…. (Alison, Focus group interview transcript, 6.11.02, p. 20)

For many beginning teachers, the realisation that there were insufficient places for all those who wanted to teach presaged the onset of disillusion with the system and eventually, with the profession.

I was disappointed about not being placed in a school. There was so much hype surrounding targeted grads…and I just felt let down that a position wasn’t found for me.”
(Survey 120702)

The lack of cohesive teaching experience impacted on the lifestyle as well as the professional development of beginning teachers. As the year progressed, and no block work or even regular casual work became available, Bianca began to lose her erstwhile positive attitude to casual teaching. Her problems exemplified the many non-professional problems that pressed in on those whose teaching experiences were restricted to short-term relief teaching. This theme – the need for a position which would provide both professional satisfaction and financial security – was expressed by several survey respondents.
If I don't get a full-time position I may have to find something else to gain financial security even though I really love teaching. (Survey 380104)

Alison, explaining her reasons for accepting a full-time permanent appointment in an interstate system, explained:

[I] didn't want to come out of this after four years and not be able to apply what I know...and that had a big impact on ...why I’ve taken that decision to take myself away from my support base, my friends, my family. [I decided] I would go where I got a fulltime job rather than rely on casual teaching. That was at the crux of it...and there was the fact that I am ten years older than everybody else, or the majority of people who are graduating and ...after four years of earning virtually no money...I need to have permanent work...(Alison, Focus group interview transcript, 6.11.02, p. 11)

The implications for education systems were summed up in the words of a survey respondent:

Teachers, especially new teachers, will continue to leave the industry unless they are given the opportunity to teach on a permanent basis within the first 2 years of service. (Survey 311503)

The perception of the case study participants in discussing their options for appointment (Focus group interview transcript, 6.11.02) that there were some areas of NSW that were “closed” to beginners was borne out by comments from survey respondents. One principal’s wry comment “What is a beginning teacher? Do they exist?” (BPS, District 19) was echoed by another who suggested that beginning teachers were “fairly sparse” on the north coast (UPS, District 17). Another principal from a coastal school commented: “A pointer for your research: the effects of loneliness and isolation on the retention rates of young teachers – particularly in an area where everybody appears ‘older’.” (BoPS, District 19). This was reinforced by a beginning teacher who had entered the service as a targeted graduate in a coastal school who said:

Even after two years of teaching, it is hard to get rid of the label beginning teacher. This is in part due to a much older teaching staff and very few changes on staff as well as a small rural community. Another difficulty is gaining the respect of parents as they see you as young and inexperienced and lack confidence in judgements and decisions. (Survey 190101)

**Professional identity: Developing a view of self-as-teacher**

The employment context had a significant bearing on the development of professional identity, of “self-as-teacher” (Nias, 1986). In this respect, casual teaching was an issue for case study participants and survey respondents alike. Cate, in reflecting on her day-to-day casual experience, admitted that as a casual she did not see herself as a ‘real’ teacher:

[It was disheartening]...you don’t get any continuity with it and there’s...I always felt guilty at the end of a casual day because I don’t feel I’ve taught...feel like I’ve baby sat rather than taught...(Cate, Focus group interview transcript, 6.11.02, p. 40)

“I didn’t feel like a teacher...because I couldn’t...you walk into the classroom and the teacher might have left stuff but you can’t see where the kids have been and you can’t see
really where they’re going, so you’re just…basically as a casual I just got through the day and thought, well, you know, it’s the teacher’s [responsibility]. (Cate, Interview transcript, 26.2.04, p. 4)

Alison, Cate and Bianca, in reflecting on their teaching at different times of their first year, revealed a steady progression from initial feelings of inadequacy to feelings of increasing competence. Both Alison and Cate, from their positions as class-based teachers were able to reflect on their learning and identify “getting to know” their children as the greatest stimulus to successful change in teaching practice and to greater satisfaction within themselves with their own performance. This contrasted with Bianca’s sadness that these were never “her” children and that she was never able to get to know them or to use that knowledge of them to see them learn. At the end of nine months of casual teaching, Bianca observed:

I don’t feel that I know I’m a good teacher…in that programming/assessing/day-to-day teaching…I mean I feel like I can be a good casual…I feel that I can walk in and still smile at the end of the day…I’m a good teacher if I can do that…I haven’t lost it…but I really would like a class where I can say…this is my class…aren’t they great…we’ve achieved so much since the beginning of the year…. (Bianca, Interview transcript, 23.9.03, p.47)

Professional knowledge: Developing competency in the classroom

The acquisition of practical pedagogical knowledge is one of the key tasks of the beginning teacher and one for which they have generally been well prepared through years of pre-service education. Berliner (1995) developed a model of the teaching career in which teachers proceeded from novice to expert through a series of levels which reflected their expertise rather than their time in the career. In Berliner’s model, teachers at the “novice level” operate from sets of rules and can move on to the next level, that of “advanced beginner”, only when case knowledge begins to develop. Teachers who pass through the novice level are then able to move on to the “advanced beginner” level where “context begins to guide behaviour” (Berliner, 1995, p. 47).

Bianca’s experience as a casual teacher contrasted with that of Alison and Cate, who were able to move relatively quickly from the “novice” level to the “advanced beginner” level as they drew on their context by seeking the help of other teachers at their schools, learning from the resources available to them, and, above all, learning from responding to the needs of their students. In Bianca’s experience, on the other hand, each lesson was a trial and error process of selecting and re-selecting from a menu of strategies. Berliner’s “novice stage” reflected in this “menu dependence” continued to characterise her teaching until the end of her first year. Her teaching context effectively denied her the opportunity to develop the case knowledge necessary to move beyond the “novice” level of expertise.

I felt like I spent most of the day sitting there going, OK, what strategy can I try…

…I could not count how many different [management strategies] I tried today …you’re really appreciative of the reflective practice of the strategies…gives you what works, what didn’t…even if this one didn’t work with that group well, I might go, Oh, maybe it will work with this one, and I’ll give it a go. (Bianca, Interview transcript 23.9.03, pp. 30 - 43)

Casual teachers were limited in their access to professional development and were also given less opportunity to take responsibility for school programs and to contribute to
school decision-making. Apart from the detrimental effect on professional socialisation that exclusion from these activities implies, it appears that the isolation from information as well as from colleagues is greater for those who remain in short term casual positions.

Bianca, replacing a teacher taking part in a mathematics workshop, reflected:

There are things I’d like to be doing and building the skills…that I miss out on as a casual. Even today, seeing them [teachers at the school where she was teaching for the day] all working together doing their scope and sequence for maths…as a casual I don’t get that…when you work together…and they probably throw out ideas at each other…like, I saw a couple of them say, “Well, I’ve tried this game…and that works well to help teach that skill.” I thought, Oh, I’d love to have that…if it works, I’d love it…. (Bianca, Interview transcript, 23.9.03, p. 47)

Her thoughts were echoed by a survey respondent:

[In my second year of teaching I would like to learn]….all of the things that are not possible as a casual teacher who doesn’t develop “deep” relationships with students and staff (Survey ID 320201).

Alison, on the other hand was supported and affirmed by colleagues at her school and she had begun to exercise her own leadership skills to assist colleagues. In examining the changes she had made in her concept map, Alison, who had described herself in March as “tentatively teaching” (Alison, Interview, 8.3.03, p. 22) by August, could look at what she had achieved and say:

I can see that all coming together now…I’ve resolved most of this [issues identified in the first concept map]. I actually did what I said I was going to…. (Alison, Interview transcript, 28.8.03, p. 35)

Conclusion

The narratives of beginning teachers are both inspiring and worrying. Along with evident enthusiasm, energy and commitment to idealistic images of teaching and teachers, come moments of loneliness, frustration and for some, almost despair. The longing for their own class is a potent reminder that after four years of university and its concomitant personal and financial cost, for many beginning teachers the goal is not yet in sight.

In a profession where the retirement rate is accelerating, where the average age is approaching (or for some groups of teachers, has already passed) 50 years of age, the infusion of new blood in some areas of NSW is little more than a trickle. Fragmentation of experience for many beginning teachers reduces their opportunity for the development of craft knowledge and the consolidation and refining of knowledge gained in university studies and practicums. In particular, teachers whose employment experience was uncertain or irregular found their learning constrained by the exigencies of daily teaching assignments where little of real teaching was expected and the demands of teacher survival were uppermost. Unless beginning teachers can be placed in situations where they are able to develop knowledge of particular children over time, their capacity to develop effective reflective practice “on the job” is likely to diminish.
In addition, particular skills with which teachers leave teacher education institutions atrophy from lack of use for those teachers who are locked into the status of “casual” teacher and locked out of real classroom practice.

References


Pedagogical spaces and memory traces

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As inclusion of students with a variety of learning needs becomes more of a reality in our schools, appropriate programs for these students must be established. Programs and strategies that teachers draw upon to assist teaching are grounded in theoretical frameworks. Information Processing (IP) is one of the frameworks available that involves cognitive processes. IP theories focus on attention, perception, encoding, storage and retrieval of information. This paper will discuss the Dual-store paradigm first proposed by Atkinson and Shiffrin in 1971, and compare this to the Levels of Processing model proposed by Craik and Tulving in 1975, and more recently the Memory Activation model (Anderson, et al., 1996). Current literature, including texts and journal articles were examined to determine the role memory has in learning. In light of the research findings implications for teaching students with learning difficulties are discussed.

Memory is a psychological process critically important to school learning. Even when learning is directed at higher order tasks, students need to remember relevant lower order information before they can effectively reason with it. Students with learning difficulties often exhibit poor memory and thus severely reduce their potential for higher order cognitive functioning. It is important for teachers to know how information is encoded, processed, stored and retrieved, as it is their job to help these students to learn (McInerney & McInerney, 1998). As the process of inclusion becomes more of a reality in our schools, students can no longer be passed off as ‘lazy and dumb’ and ‘someone else’s problem’ simply as a result of these difficulties.

The purpose of this paper is to define the various paradigms that are currently used to explain memory functioning. Literature is examined to summarise research findings and more specifically the research incorporating students who have learning difficulties. Implications for teaching students to enhance their performance and learning are then suggested including useful strategies for teacher educators in their daily dealings with students who have a wide range of abilities. Analysing the components of the IP model will assist teachers in analysing tasks presented to students so they can ensure they are more easily perceived, actively remembered, effectively stored and retrieved for future actions. It is important for all teachers to be equipped with such strategies so that students have more equitable access to higher order learning tasks in schools.

Description of memory

Memory function is a complex interactive process that involves our capacity to encode, retain and retrieve knowledge, impressions, or previous experiences (Schunk, 2004; Kirk, 1993). The Information Processing Model of memory provided by Atkinson and Shiffrin in 1971 has become influential in cognitive psychology. Figure 1. is a visual representation of the process, which will be used to organise the review of literature as well as further implications for teaching.
Input from the environment registers in the sensory memory where it is held for a brief time, approximately two seconds according to Klatzky (1980). There is a sensory register for each sense. As the holding time is so brief, most of what enters simply fades away because it is not attended to. The model does not assume that all information comes from the external world, but rather it involves an interaction between extant knowledge and incoming information.

If the material is attended to it enters the short-term memory (STM). Short-term memory has a brief duration and limited capacity - about 30 seconds or seven items (Shavelson & Bolus, 1982). Baddeley (2001) elaborates STM components to include the phonological loop specifically to do with auditory memory, and a visuospatial scratchpad to do with visual memory. If there is further processing of the information in Working Memory (i.e. rehearsal) it will subsequently be held in the long-term memory (LTM) or replaced by new incoming information. Long-term memory has a large capacity to remember things, perhaps an unlimited time (Kirk, 1993).

The sensory register, STM, and LTM are seen as the structural elements of the model. Atkinson and Shiffrin also proposed control processes or a central executive called Working Memory (WM) is voluntarily used to assist the transfer of information between STM and LTM. WM is defined as the simultaneous storage and processing of information (Swanson, 1994). LTM and WM are sometimes described as integrated aspects of one system where content of WM is the active LTM representations. Thus, WM is a system in which information is held while being manipulated or transformed (Baddeley, 2001). Schemata and scripts are the LTM framework of prior knowledge that helps to encode new material by allowing it to be linked to already known material (Ormond, 1999). LTM consists of highly interconnected units of knowledge that include semantic, episodic or procedural information. Semantic memory is described as knowledge based on facts about the world and is outside individuals’ experiences. Episodic and procedural memories are those that have usually been personally experienced.

The levels of processing approach to memory proposed by Craik and Tulving (1975) suggests that we analyse materials in many different ways and that the deeper the level of processing the more permanent the retention. The approach conceptualises memory
according to type rather than location. There is no assumption about stages or sequencing of information processing as in the two-store model.

Anderson et al. (1996) contended that memory varied according to level of activation. When memories are active, information can be accessed quickly. Without attention, activation level will decline or decay, but can be reactivated with renewed attention.

**Review of research on memory**

Substantial research has been devoted to the study of memory. Areas of focus may be discussed in terms of the models described above, especially the construct of the model itself in terms of STM and LTM, the executive or control processes in operation, and strategies used to enhance learning.

One area of discussion is whether there is in fact a dual system of memory outside the sensory system (Ormond, 1999). Case (1985, cited in Halford, Maybery, O'Hare & Grant, 1994; Swanson, 1994) proposed that total processing space in STM is made up of operating space and short-term storage space; and the operating space needed for tasks decreases as processing efficiency increases.

Many studies have focused on the different ways that the stimuli are encoded, and on ways the stimuli are retrieved. Poissant (1994) along with McGhee and Lieberman (1994) found that material in STM was mainly coded in terms of its acoustic or sound characteristics, and that material was coded in terms of semantics or meanings in LTM.

A thorough description of techniques used to enhance memory is presented in McInerney and McInerney (1998) and many other texts on human cognition. These have been grounded in the research literature; for example, mnemonics using a keyword approach was found to be effective when teaching concrete and abstract vocabulary (Perichitte, 1993). Krinski and Krinski investigated the peg-word method in 1994 and found that the method was useful in facilitating STM but not for LTM. Lapadat and Martin (1994) found the use of imaginable elaborations was more effective than simply verbal elaborations on recall of both episodic and declarative information given during university lectures. A word of warning is given by Poissant (1994) because the application of metacognitive strategies can be very different to knowledge about them.

Different types of rehearsal have been investigated in terms of memory improvement. Baddely (2001) states that information is briefly held in the STM store is maintained by rehearsal. This rehearsal is said to occur within the “phonological loop” and the faster the rehearsal rate, the more that can be stored. Processing capacity (i.e. faster rehearsal and better coding) is said to improve with age (Halford et al., 1994). Maintenance rehearsal maintains an item in STM while elaborative rehearsal maintains an item in LTM. Ormond, (1999) and Schunk (2004) surmised that there was a similarity between the way that material was encoded and the way it was retrieved (encoding specificity).

Forgetting occurs because of interference, both proactive and retroactive, and also because of decay, where memories fade simply due to the passing of time. Without rehearsal, information in STM decays. Forgetting may take place if encoding has not
been complete. Forgetting may also be applied to retrieval failure or ineffective retrieval cues (Kirk, 1993). The degree of semantic similarity is related to the amount of interference.

**Implications for teaching students with learning disabilities**

Learning Difficulties (LD) refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition of listening, speaking, reading, writing, reasoning or mathematical skills (Adams & Carnine, 2003; Foreman, 2001). In spite of substantial research on memory, little can be seen to be definitive (Lee & Obzut, 1994). The results of memory studies involving children with LD has even led to the characterization that they are inactive and inefficient learners (Torgesen, 1988; Wansart, 1990).

These children have been found to recall less information, underutilize organizational strategies, and engage in less semantic processing, display less knowledge of their own memory processes and use their limited attention resources ineffectively (Lee & Obzut, 1994). Their memory problems are attributed to failure to use certain strategies that their peers used spontaneously.

A body of research indicates that children with LD perform poorly on memory span tasks (Torgesen, 1988). Even though performance on memory span tests is not highly correlated with general intelligence, memory span tasks do tap some of the important processes that determine the functional storage capacity of working memory. Torgesen cites many studies that offer explanation for poor performance in span tests including: inefficiency in using mnemonic strategies, problems coding the phonetic features of verbal information (Swanson & Ramalgia, 1992), shorter attention span (Sattler, 1974), disruptive levels of anxiety (Hoges, 1969) and poor motivation (Hallahan, 1978). Torgesen found that although it is possible to increase the performance on span tests by teaching specific strategies, this does not alter the underlying coding inefficiencies. Thus, it is imperative that these inefficiencies be addressed in the first instance.

The study detailed in Swanson and Saez, (2003) supports the hypothesis that children with LD exhibit distinct deficiencies in working memory components. They found that disabilities of children with LD were not related to short-term recall, visuo-spatial abilities, or memory span. Instead results indicate that memory problems of children with LD are more related to the higher order processes such as the central (executive) processing ability involved in working memory. That is the ability to process information in a way that allows retention and deeper understanding. According to Swanson (1994), working memory tasks appear to consistently differentiate students with and without learning disabilities. The correlations between WM and achievement have been high. Thus, WM rather than STM made the most important contribution to reading comprehension among those with LD. Perhaps WM performance can be used as a predictor of future academic performance. Lee and Obzut (1994) found that children with LD showed less taxonomic clustering than their peers. Semantic memory weakness may stem from inability to spontaneously recognize semantic aspects that tie various stimuli together. However, a cued-recall may enable these children to organise their learning (p. 460) so it is possible to overcome these difficulties.
Several studies have examined metacognitive skills of good and poor readers including those with LD. Children with LD appear to be less aware of the purpose of reading (i.e. they generally perceive it as decoding rather than a comprehension task). They lack metacognitive skills according to type of task requirements. When appropriate strategies are known, they are not necessarily employed. Thus, the children require external prompting to activate strategies. Wansart (1990) also found that performance of those with LD improved when they were instructed to use appropriate strategies. The study found no evidence that children with LD were inactive, passive or maladaptive in their attempts to learn to solve the problem that the study had posed. Their learning was characterized by continuing adaptations in their understanding of the task and the strategies used for solution. Those strategies were identical to those used by their peers, however, they did differ in the rate at which they were achieved.

Early research suggested that learning difficulties were the result of underlying neurological dysfunction. It is now accepted that there is little basis for this explanation; rather there is recognition that cognitive functioning is both a product of and a contributor to the individual’s interactions within social relationships. There is a greater acceptance of the need to examine the interactions between the learner, the learning environment, the task, and to identify the variables and conditions under which learning becomes problematic. Carnine (1991) calls for more efficient instruction as there is too little time to meet all the needs of students; efficient instruction allows more of these needs to be met. Efficient instruction can help overcome the difficulties associated with poor memory these students exhibit.

Techniques for improving memory for students with learning disabilities

Wagner and Mory (1992) suggest that as well as the internal processes of memory, nine external events can be identified and manipulated to influence learning - gain attention, inform the learner of the objective, stimulate recall of prerequisite learning, present stimulus material, provide learning guidance, elicit the performance, provide feedback about the performance correctness, assess the performance, and enhance retention transfer. Questioning, feedback and monitoring should be used to advantage during all of the above. Masterpieri and Scruggs (2000) refer to preconditions needed to improve memory and learning. When a teacher has gained attention, achieved motivation and positive effective responses from students, then strategies to improve memory will have the intended effect. These preconditions also overlap with events suggested by Wagner and Mory.

Learning occurs when information is related to existing structures. If there are insufficient structures present then they need to be provided (McCarthy-Tucker, 1992). One needs to demonstrate the use of scripts and schemata for children to help their understanding of events around them. As long as information is presented in a logical and systematic manner, this will enhance recall (McCarthy-Tucker, 1992). Care needs to be taken with regards to the different expectations between recognition and recall. Tasks that call on recognition incorporate more explicit prompts than those that rely on recall (McInerney & McInerney, 1998).
Processing information both pictorially and semantically will result in deeper knowledge and memory. McCarthy-Tucker (1992) suggests that teachers be aware of learning being context-specific. Encoding specificity must be countered by teaching for generalization.

Due to limitations of STM, teachers should not present too much material too quickly. They must allow time for rehearsal. Torgesen (1988) found that poor performance on memory span did affect speed of decoding. Perhaps there is a need for special practice sequences in reading that use speed as a criterion for lesson mastery. It would also be preferable to have the maximum capacity devoted to higher order processes than simply storage. The better we know something, the less attention we need to pay to it.

The impact of the “cognitive revolution” on instructional design has been substantial. There is widespread agreement that each learner needs to learn how to learn. Metacognitive strategies allow the learner to maintain awareness and control of their learning. Teachers need to be aware that memory improves between the age of 5-10 and voluntary control over memory strategies also improves with age. Most importantly, educators must believe that students with disabilities are capable of these higher order skills.

Instructional strategies for metacognitive development should include: chunking, framing, concept mapping, use of metaphors, use of advance organizers, rehearsing, use of imagery, and use of mnemonics (Persichitte, 1993). Schunk (2004) recommends the use of over learning, clustering or categorizing to associate materials with each other, and paraphrasing or summarizing. Elaborative encoding is found to be one of the more effective mnemonic methods (Brigham, 1993). Ormond (1999) cites studies that found generalization of trained cognitive skills. However instruction in metamemory function is no guarantee that strategy generalization will occur. We should teach children the use of mnemonic devices that suit the task at hand and remind them which strategies to use, or scaffold their use until they are able to use them independently (Walczyk, 1995).

Children need practice to reduce the effects of decay. Make sure useful information is used often. With more complex tasks this takes care of itself, as the prior knowledge is a prerequisite for the new material. Interference, retroactive or proactive, needs to be reduced by carefully structuring the order that materials are presented. The more similar material is the more likely it is to interfere. Thus don’t teach similar material back to back and make clear distinctions between two similar concepts. Children are affected by encoding specificity; perhaps ensuring that the encoding contexts are more varied will assist here.

Mastropieri and Scruggs (2000) strongly advocate environments that enable children to perceive themselves as successful and facilitate positive feelings and self-motivation. Garcia and Pintrich (1994) also emphasize the importance of motivation to provide insight into students’ choice, level of activity, effort, and persistence.

All children differ along a continuum of intellectual, physical and psychological characteristics. Individual differences are universal. Different strategies work for
different learners, a wide variety of teaching strategies must be employed and teachers need to be diligent with those who take longer to learn.

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Component analysis: Let’s be more efficient

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Teaching Augmentative Communication is a complicated business in today’s busy teaching environment. It might be expedient to analyse our teaching methods more closely to make this process more efficient. The use of component analysis strategies is one way to determine the effective elements of teaching interventions that we use. This paper examines the literature for studies that have used component analysis of strategies to teach students who have severe intellectual disabilities. Component analysis is specifically discussed in terms of teaching receptive communication skills to these students. Suggestions for future research are made.

It is widely recognized that all students can learn and should be provided with an appropriate education. Communication intervention for those who have severe intellectual disabilities enables these students to develop appropriate skills further than has been the case in the past.

Diverse heterogeneous profiles of these students have naturally resulted in diverse communicative needs, and also a range of communication interventions. Many studies have reported the effectiveness of ‘complete communication intervention packages’ when teaching some aspect of communication. These include: giving choices (Bambara, Koger, Katzer & Davenport, 1995; Sigafoos, Laurie & Pennell, 1995; Vaughn & Horner, 1995); interrupted routines (Brady, McLean, McLean & Johnston, 1995; Sigafoos, Kerr, Roberts & Couzens, 1994); missing item and least to most prompt (Locke & Mirenda, 1988; Schlusser & Spradlin, 1991); time delay (Gee, Graham, Goetz, Oshima & Yoshioka, 1991); instruction with technology devices (Locke & Mirenda, 1988; Mar & Sell, 1994; Romski and Sevcik, 1999; Schepis & Reid, 1995; Schlosser et. al, 1995) facilitated approaches (Bligh & Kupperman, 1993) and milieu approaches (Hamilton & Snell, 1993; Kaiser, Ostrosky & Alpert,1993).

In spite of the extensive literature that exists for this population, best practice is difficult to follow in real settings. Stephenson (2003) describes both ideal and actual practices observed in the literature and notes there are often discrepancies between the two. She notes factors such as the lack of time for planning and collaboration that have led to inappropriate or insufficient strategies being used for these students. Perhaps more efficient ways of identifying best practice on an individual basis will assist teachers in the future.

Descriptions of actual training procedures are often noted to be sketchy. Further delineation is needed to determine components that are effective. It would make sense to know exactly what components of the intervention packages were of most benefit in order to make teaching a more efficient process. Hepting and Goldstein (1996)
<table>
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<tr>
<th>Authors / Date</th>
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<th>Participants</th>
<th>Methods employed</th>
<th>Results</th>
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<td>Carr &amp; Durand 1985</td>
<td>Reducing behaviour problems through functional communication training.</td>
<td>N=4 Students with developmental disability. Age range 7 - 14 years. All presented with severe behaviour problems.</td>
<td>Design incorporates ABACACAB. Phases included: baseline, interventions that were counterbalanced across students. Task difficulty and adult attention were manipulated, while the level of praise; mands and comments were all held constant.</td>
<td>Exp. one: low levels of adult attention and high levels task difficulty are associated with ‘serious misbehaviour’. Exp. two found that differential reinforcement of functional communication reduced behaviour problems.</td>
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<td>Cooper, Wacker, McComas, Brown, Peck, Richman, Drew, Frishmeyer &amp; Millard. 1995</td>
<td>Use of component analysis to identify active variables in treatment packages for students with severe feeding disorders</td>
<td>N=4 Jack 1.9 years, Carl 6.2 years, Andy 2.11 years, and Karen 1.8 years. Varying levels of developmental disability and severe feeding difficulties or food refusal.</td>
<td>Four phase multi-element reversal design. This consisted of baseline, treatment package, component analysis and follow up probes six months following the analysis. A, B, B-1, B, B-2, B.</td>
<td>Escape extinction was always identified as an active variable. The other variables of reinforcement and noncontingent play were effective for only two of the participants. This identified the elements necessary for maintenance of new behaviours.</td>
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<td>Fisher, Piazza, Cataldo, Harrell, Jefferson &amp; Connor. 1993</td>
<td>Functional communication training with and without extinction and punishment.</td>
<td>N= 4 Adults with profound intellectual impairment. All inpatients for severe behaviour disorders.</td>
<td>Functional communication training used for four allocated groups with multiple baseline treatment sequences</td>
<td>Rates of disruption, aggression, and self-injury all significantly decreased when punishment was incorporated with FCT rather than extinction with FCT or DRO.</td>
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<td>Kern &amp; Marder 1996</td>
<td>Comparing simultaneous and delayed reinforcements for food selectivity</td>
<td>N=1 Seven-year-old boy with severe developmental delay and food selectivity.</td>
<td>Baseline and multi-element design intervention A, B+1, A, B+2</td>
<td>The component of simultaneous reinforcement was more efficient than delayed reinforcement in increasing the number of bites of food accepted.</td>
</tr>
<tr>
<td>Lancaster 2002</td>
<td>Teaching receptive and expressive use of augmentative and alternative communication (AAC)</td>
<td>N=1 Severe intellectual disability and communication impairment.</td>
<td>Baseline strategies were continues through the phases. Additional strategies of “match-to-sample” (C) and “blocking mistakes” were sequentially added. A, A+B, A, A+C</td>
<td>When added to the strategies used during baseline, the component of ‘match-to-sample’ (C) was effective when teaching receptive understanding of symbols used for choice making and learning was maintained. The component of ‘blocking mistakes’ (B) also effective but results were not maintained.</td>
</tr>
<tr>
<td>Wacker, Steege, Northup, Sasso, Berg, Reimers, Cooper, Cigrand &amp; Donn. 1990</td>
<td>A component analysis of functional communication training across three topographies of severe behaviour problems.</td>
<td>N=3 People with severely disabilities residing in an institution. Age range = 7, 9 and 30.</td>
<td>Two phases including a functional analysis / assessment and then a reversal design with component analysis following treatments. A, B, B-1, B, C, B.</td>
<td>Treatment continued until there were no occurrences of inappropriate behaviour. Separate contributions to the treatment were then evaluated with a reversal design. Results indicated that both sets of treatment components were necessary for maximum control over aberrant behaviour.</td>
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suggested a taxonomy as a means of categorizing effective intervention components (cited in Goldstein, 2002). This taxonomy included various procedures that manipulated antecedents as well as consequences. By investigating the separate components of interventions, instruction may become more efficient while maintaining effectiveness, which is a very important factor in today’s busy teaching environment.

The purpose of this paper was to investigate the intervention components that are most effective in increasing receptive understanding of object symbols used within the pragmatic function of choice making by students who have severe intellectual disability and severe communication impairment. Results are compared to available literature on component analysis used with this population of students.

**Component analysis**

Studies utilizing component analysis are listed in Table 1 include the few available in the education literature. They are far more commonplace in the medical literature. Studies by Carr and Durand (1985), Cooper et al. (1995), and Wacker et al. (1990) incorporated designs where the whole package was implemented at once because of the urgency of the problems presented by the participants (i.e. aberrant behaviours and severe feeding disorders). Components were then systematically withdrawn to compare the effect of each on the level of success that had been attained using the complete intervention package. Cooper et al. (1995) suggested that this type of ‘post-treatment’ analysis was appealing because it allowed initiation of treatment more quickly than if ‘pre-treatment’ analysis were conducted. Post-treatment analysis allowed for a methodology “…for evaluating active variables that appear necessary for ongoing success” (p. 140).

The elements of component analysis methodology vary according to whether pre or post analysis is used. Post-treatment analysis involves baseline assessment, implementing a complete multi-element treatment package, achieving criterion with the complete package, and then systematically withdrawing individual elements to determine whether the criterion results can still be maintained. If the results are maintained, then the relevant component is not required for continued success for that student. If results decrease, it is necessary to maintain the focus component for continued success. Diagrammatically this is represented with studies in Table 1 by the following sequence: A--B--(B-1)-- B--(B-2)--B where A is baseline, B is the complete intervention, B-1 represents the complete intervention package with one element withdrawn and B-2 is another element withdrawn.

Pre-treatment analysis involves: baseline assessment, implementation of a single element of intervention to determine whether it has any positive effect towards the desired criterion. If there is no effect or it is not large enough, another element may be introduced. Diagrammatically this may be represented by the following sequence: A--B--A--C where A is baseline, B is a single element of intervention, and C is another single element of intervention. This allows for their individual contribution to the result to be measured.
When an intervention package was effective, it was not assumed that each of its components contributed to its success. It was possible that only some of the components were effective and others might be neutral or even detrimental to successful outcomes.

Lancaster (2002) investigated components of strategies designed to teach communication skills. The intervention consisted of the elements of instruction being utilized during the baseline phase with components of Blocking Mistakes and Match-to-sample sequentially added to determine their effect on communication skills. This determined the degree to which these separate components contributed to improvement in communicative behaviour, or whether, in fact, they enhanced the effectiveness at all.

This study may be illustrated with the following: A, A+B, A, A+C, which would be incorporated for one set of symbols; and A, A+C, A, A+B, for the second set of symbols (Components B and C were added sequentially to the baseline procedures A to measure their effectiveness). Intervention C was clearly more efficient for developing understanding of the symbol meaning than intervention B.

**Discussion of receptive communication skills following component analysis.**

The literature suggests a continuum of communication intervention strategies for those with severe intellectual disabilities. McLean et al. (1999) and Butterfield et al. (1994) considered various teaching strategies to move students from pre-intentional to intentional and then to symbolic levels of pragmatic difficulty. Strategies such as mand-model and incidental teaching were suggested when students are moving from the intentional stage to the symbolic stage. The following are suggested when moving from pre-intentional to intentional stages: contingent responding, referencing, shaping and reinforcement (Butterfield et al., 1992 & 1994; Reichle et al., 1993). Ways of increasing choice opportunities include: offering out-of-context items, blocking access to items or activities, and increasing reach to items.

The techniques suggested by Butterfield et al. (1992 & 1994) and Reichle (1993) to assist in the transition from pre-intentional to intentional stages of communication had been successful for the student in Lancaster (2002) for the expressive use of symbols. It was not found necessary to utilize techniques such as mand-model and time delay as suggested by Beukelman and Mirenda (1998) and Halle (1987). With the addition of Intervention B or intervention C components to the existing strategies, the receptive understanding of symbols was also improved.

Just as it is unwise to suggest that some strategies are useful for a particular group of students, it is also unwise to tie strategies to a particular stage of communicative development. Goldstein suggests that students with reasonable imitation skills “…are likely to learn from systematic discrimination training, regardless of the mode of communication used” (p. 3). It is not surprising that discrete trial training formats that include various operant procedures such as differential reinforcement, correction procedures, modeling and prompt fading are successful.
Research on milieu procedures has been extensive and many successful outcomes have been reported (Kaiser, Yoder, and Keetz, 1992, cited in Goldstein, 2002). Goldstein goes on to suggest that there is currently no compelling evidence that milieu procedures are more effective than discrete trial. In fact there is probably a great deal of common ground between them when the strategies are examined more closely.

**Future directions**

Communication intervention should be incorporated into the curriculum of students with disabilities to provide as many opportunities for development as possible.

Communication intervention often involves multiple procedures in the form of a ‘treatment package’ (Cooper et al., 1995). Component analysis provides a methodology for conducting pre or post treatment analyses of intervention elements. Pre-treatment analysis involves the sequential introduction of components beginning with the least intrusive and may eliminate the need for the more intrusive variables for some students. Post-treatment analysis involves the introduction of a complete package and the sequential withdrawal of treatment components to test effectiveness. Component analysis therefore provides a methodology for evaluating active variables that appear necessary for ongoing success and maintenance of results. The selection of one methodology over another depends on the outcome of most interest. It may also be of interest to conduct component analysis at different times during the intervention to determine whether active variables change over time.

As Wacker et al., (1990) suggest, the major advantage of conducting a component analysis is the identification of effective treatments. There is a “functional match” (p.417) between the response and the intervention when the most efficient elements are selected for individual students.

Even though the focus of this paper has been students who have severe intellectual and communication difficulties, the use of component analysis could prove useful for a broader range of students. All teachers need to constantly reevaluate methods that are effective for their students. Component analysis is a simple yet effective way of achieving this end. Further research might address the issue of training teachers to use component analysis to assess their teaching.

**Conclusions**

It is fair to say that two decades ago there was doubt about the potential of those with severe intellectual disabilities to benefit from communicative intervention. With the integration of behavioural and technological advances in the field, there is optimism for the future. Educational reform requires that we search for meaningful and effective approaches to meet the growing needs of students. Innovative practices need to be identified to support the education of all students.

Using component analysis to analyse strategies used can be seen as a way of analysing the communicative environment as described by Ferguson (1994). We can
analyse how current strategies “… invite, accept, or respond to communicative acts.” (p. 9) for all students. There is now greater acceptance of the need to examine the interactions between the learner, the learning environment, and the task, in order to identify the variables and conditions under which learning becomes problematic. All students differ along a continuum of intellectual, physical and psychological characteristics. Because different strategies work for different learners, a wide variety of teaching strategies need to be available and used. The present discussion has shown the importance of the component analysis methodology as a means to identify effective and efficient elements of teaching packages.

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Community learning: Regenerating pedagogic spaces

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University of Western Sydney, School of Education and Early Childhood Studies

This research provides new information about community knowledges accessed for individual advantage. It also suggests that schools might usefully consider knowledges accessed for community advantage as a way of regenerating pedagogic spaces. It acknowledges the importance of the nurture and support, common values and common purpose to be found in community learning. This study identifies areas to be looked at anew in formal schooling, such as practical learning, passion and choice, including choice of the site of learning. Motivations for involvement are discussed as critical factors. It raises questions for schools, Departments of Education and teacher education programs.

This research was motivated by the desire to find what characterised learning in community settings, why it engaged people in ways that differ from formal schooling and what qualities of community learning can transform classroom practice. That overarching question raised associated questions about social experience and life fulfillment. The paper reports on this ongoing study that is involved with 100 participants in 20 community organisations in Western Sydney. Research evidence from ten of the organisations (involving 50 participants) informs this paper.

The specific learning in community settings that was examined was in music making and arts practice. Community music, according to Whiteoak and Scott-Maxwell (2003, p. 158) is defined as “music-making practices that strengthen a community and support its musicians”. In the community, ‘art’ is “situated in both process and product” (Howard, 1998, p. 9). The purposes of community learning and classroom learning may be different. These definitions point to the fact that the involvement of community art and music making is not necessarily connected with career and livelihood. It is connected with the celebration of “the diversity of our life ... and the exploration of community identity” (CNPO Policy and Procedure, 1997, p. 2). Within those broad definitions, there are many general benefits that encompass skill development, pride in cultural identity, creativity and the creation of pathways for people young and old (Cahill, 1998).

Rogoff, (1994) and Renshaw, (2002) suggest that to research learning we have to investigate the human relationships within which it occurs and is used. There are resonances here with Gardner’s (1983) interpersonal and intrapersonal intelligences and the first clues to regenerating pedagogic spaces. Researching pedagogy, Power and Auh (2001) found that pre-service teachers best understood creative music teaching through observing and discussing activities such as teaching higher order thinking skills and showing students that their ideas are valued. The personal
affirmation is essential. Moll’s research (1992) sees the educational network of the community as “thick and multi-stranded”, having knowledge about the learner in many spheres of activity, beyond performance within classroom contexts. The task becomes to share locally based community knowledges as ways of regenerating pedagogies.

Hawkes (2002) argues for the essential connections between art, culture, human rights, community, governance, democracy and social policy. He theorises the foundation of community building as lying in the participatory arts, uniquely providing tangible evidence of the power and joy of co-operation and states that:

The support of professional practice is a laudable policy, but far more important is offering all citizens and their offspring the opportunity to actively participate in arts practice - to make their own culture. Creativity, engagement, cohesiveness, well-being and respect for difference will be inevitable outcomes (Hawkes, 2002, p. 2).

In Chicago, researchers such as Burnaford, Aprill and Weiss (2001) have been involved in projects where artists are in schools alongside teachers. On a smaller scale, Bamford is currently examining the impact of school-based arts programs in two NSW schools (2003). Such projects with artists collaborating with teachers and students take place for a proscribed period of time towards a performance goal. Austin (2002) and Diamond (2002) confirm the restorative power of making music. An ongoing study by Bloustein, Homan and Peters (2003) is investigating popular music as central to marginalised youth. The premise of the study, being conducted in Australia, Britain and the USA, is that youth who drop out of traditional education will still attempt to increase their skills, especially in areas that are meaningful to them.

Studies relate leisure activities to the framing of self-identity and the pride which is a by-product of that (Heath & McLaughlin, 1993). More broadly than studies of marginalised youth, research supports the assertion that participation in leisure activities can provide opportunities for self-reflection and personal growth (Kelly, 1990). There is additional research that suggests that the significance of leisure activities for youth lies in the opportunities to engage in transitional activities that link play and adult responsibilities. For instance, Kleiber, Larson and Csikzentmihalyi (1986, p. 175) explain that transitional activities may not only motivate participants but also “require discipline and engagement in a world of symbols and knowledge”.

On a policy level, Education Queensland released a Ministerial Report that specifically seeks to renew the final years of school education, called the Senior Certificate. A key recommendation of the Report involves the optional inclusion in the Senior Certificate of learning experiences not provided by schools. This necessitates a pivotal decision-making role for schools in facilitating learning for students through co-ordinating access to learning resources throughout the community (Pitman, 2002. p. 7). The Report notes that experiential learning encompasses valuable generic skills that include communicating, perseverance, resilience and work ethic (p. 31). The Report states that the phrase “learning not schooling” is used to recognise the importance of learning wherever it occurs (p. 84), a point relevant to the directions of this study.
Method

Broadly, the study is located within current socio-cultural connectionist theories of learning. These theories are particularly concerned with the ways social networks facilitate the development and exchange of resources, especially knowledge (Moll et al. 1992). This ongoing project seeks to:

- add to current knowledge of community practices in the arts of music and visual arts by documenting the diverse music practices of adolescents and adults;
- identify the qualities of community learning that adolescents and adults draw upon and develop in their everyday music and art practices;
- consider the regeneration of classroom learning through qualities of community learning.

The project is being conducted over ten months with 20 council-endorsed cultural and youth organisations in two localities in Western Sydney. The organisations have been identified from Council websites and through the Council arts and events co-ordinators and youth officers. Data collection takes the form of structured interviews, taped and transcribed. Content analysis of the interviews forms the basis for data reduction and interpretation.

The music organisations whose participants inform this paper comprise two youth centres, two community choirs (one of them specialising in multicultural music), a jazz club and a festival. The visual artists include potters and painters. All interviewees are identified by pseudonyms. The interview schedule is shown in modified form below.

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<th>INTERVIEW QUESTIONS</th>
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This paper reports on data drawn from Questions 3, 7 and 12 on learning, social experience and the contribution of community learning in music and visual arts in the lives of the participants.

About learning in community experiences

The multiple responses were divided into two broad categories shown in Table 1 below. Individual advantage in music included starting a band and writing for it,
taking up a new instrument, creating new audiences, learning new skills about how to rehearse, and making a “demo” tape after a recording studio workshop. In art making, individual advantage included everything from learning about glazes to entering exhibitions.

Table 1. Data from question 3

For example, Sam said:

I enjoy technology and glazes are very much part of that and I think that’s what appealed to me. I have a great deal of interest in what can be learned through rocks and clays. The chemistry and structure of rocks and clays - and how you can use them and transform them and form a glass on them.

The learning often occurs without conscious teaching - learning by watching.

Cal, a volunteer at a youth centre talked of involvement in the local town Winter Magic Festival. His comment linked with Campbell’s (1998) finding about the facilitation of personal development that is generated by membership of a community of arts practitioners. The youth organisation, Prankfest wanted to celebrate young talent in the Winter Magic Festival:

We were flooded with demos. We took high quality but we also took limited quality. Like we took some bands that only had two songs but they could do those well. That was our vision: to have a music festival that supported young bands and gave them an opportunity to perform alongside headline bands.

And Terry, a young jazz musician talked about learning from other people without pressure:

You’re playing with guys that have been professionals for 20-30 years. And when I first came here it was mind blowing. You’re just picking up so much stuff off them. It’s astounding to be able to sit in the same room and play with them. The thing that amazes me about this crowd is there’s hardly any egos. Everyone’s just very casual and laid back. Happy to help you out with what you’re doing.

Community music seems to effectively provide possibilities for a rich interaction of professional and learner that benefits all involved.

While the data on individual advantage provides significant new information for mapping the kinds of knowledges being accessed, learning for community advantage
is even more significant. This moves beyond bringing community expertise into the classroom. Learning for community advantage connects with making a transition to life after school. It provides an important possibility for regenerating classroom teaching. If schools can actively connect one learner’s plans to support another’s learning, the quality of community experience may also be transferred. This relates to being concerned with one’s place in the broader community, and the need to take some responsibility for the greater good. Among those interviewed, such concern includes passing on painting skills and giving young performers a taste of professional experience. There is leadership, too. Brad, while still at school, organised a “breaker comp” that attracted 2000 people as a result of learning in the Hip Hop workshops. Heath and McLaughlin (1993) state that young people in youth organisations need opportunities to make decisions about the directions of the organisation. It also accords with research of Cahill (1998) that young people engage with popular culture as a means of agency, learning to negotiate with authorities and develop organisational skills, moving along pathways into adult creative practices.

Social aspects of community experiences

The social aspect of music making is integrally part of the interaction of ensemble players but it is not essential to the acts of composition, improvisation and arrangement. The solitary action of creating is also the experience of the visual artists. But the communal aspect is necessary on levels both of practicality and learning by watching. Three broad categories are shown in Table 2 below.

Table 2. Data from question 7

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<th>Social Experience</th>
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<td>Support together/nurture</td>
<td>40</td>
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<tr>
<td>Common values/respect</td>
<td>60</td>
</tr>
<tr>
<td>Collaboration for infrastructure</td>
<td>0</td>
</tr>
</tbody>
</table>

The theme of nurture is strong. Both choir directors commented on the way the entity of the choir may vary as the lives of the participants change. Meryn spoke of the progression over 13 years that she has seen:

The choir’s gone from young women without families to a choir where many of the women have several children. Some are still having children. So they have less available time. Performances give them a social outlet. And the families can be part of it.

The importance of common values comes out in comments from the boys in one Youth Centre about making yourself understood. As Nick states, there is a confidence in knowing that they can expand their learning within their community:
There’s a level of respect. If you know that someone’s into Hip Hop and knows about it, you can communicate better. You have a chance to hook up. It’s your culture.

Common purpose is evident in Jaye’s explanation of the bonding that exists between the youth workers in helping young people to organise events:

With our small community, it’s almost like a family. You have to put so much time and you support each other immensely. And you can either work together and run it or fight. It’s an awesome dynamic. That’s one of the things about music - where a community says “let’s do this”.

For the visual artist, there is a different understanding of community art. Artists may work together collaboratively, with the community’s feedback energising them, but they feel their essential work is individual in nature. The collaborative work for visual artists seems to lie in the establishment of a studio. This provides not only a physical space but the opportunity to be connected and to learn from each other. As art-making is not the livelihood of community artists, gathering the funds to establish a place to work requires collective input. Alice in the painting group talked about this both in terms of their own work and the collaborative efforts towards building the studio:

Angela is great to talk to about placing objects in the composition. We help each other but in the end I guess we each follow our own unique way... But in terms of this studio, Heather and Glen knew the land at the back of the local Fire Brigade Station was not being used and we asked the council for help... They gave us the land on a long lease and $10,000 towards the building. A local architect drew up the plans for nothing and we found ways to raise the rest of the money and we did a lot of the labour ourselves.

Moll (1992) describes two key characteristics of community networks: they are flexible and adaptive; and they engage in reciprocal practices built on trust, where knowledge is obtained not imposed. Evidence from this study verifies these factors, especially the second characteristic.

About the contribution of the community learning to the lives of the participants

Themes emerging from the final question were concerned with motivation and fulfillment. These are shown in Table 3 below.

<table>
<thead>
<tr>
<th>Categories</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passion</td>
<td>90</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>70</td>
</tr>
<tr>
<td>Way of communicating</td>
<td>50</td>
</tr>
<tr>
<td>Productive fun</td>
<td>30</td>
</tr>
<tr>
<td>Responsibility</td>
<td>20</td>
</tr>
<tr>
<td>Stress relief</td>
<td>10</td>
</tr>
</tbody>
</table>

Community artists talk about compulsion. David said: “You just have to paint. There is no choice to make. One needs to love it.” That sense of passion and animation is the
common theme of those involved in community learning in the visual arts and music. There is also a sense of productive fun. John said:

We joined an art class put on by a local artist - started to work together in Rachel’s kitchen. Now we just work together, learning from each other... We have a lot of fun.

Satisfaction is also an important motivation for participants in community learning, especially for those who are organising community events and groups. This emerges in comments such as Ella’s about the satisfaction of bringing together musical talent in a district and hearing them develop into an accomplished ensemble. For the participants, the need to communicate is strong. Jillian said: “I find it [painting] a way of remembering my world” and Don said of his jazz playing: “It’s a chance to express yourself really”. The expression is personal, immediate and wordless. Jeanette emphasised the value of art as communication:

I think it’s being able to explore a way of saying things... It’s part of us and we can’t do without it. When I die, I want everybody to paint something on my coffin. It’s so important to me...

Meryn spoke about both the fulfilment and responsibility of creating a performance after a choral workshop:

You start with nothing. You just build this performance that is completely intangible but so incredibly solid. It’s emotional as well. There is the general outpouring of spirit and assistance and positiveness. When people join together and pull together a performance you just can’t buy this. It’s something which is magical and so incredibly valuable. I suppose it’s replacing the other aspects of community that existed in the past.

Discussion

The aspect of learning for community advantage, mentioned by 58% of participants, needs to be further investigated. It is a significant finding of this study and has the potential to regenerate pedagogic spaces. There is high level motivation for learning in an environment which is animated and in which the learner’s passionate involvement is supported by like-minded peers. Further research will explore this connection between learners for the creation of something which is seen to have benefit for the wider community. This ongoing research points to the fact that there are funds of community knowledge for which schools, Departments of Education and teacher education programs need to develop appropriate pedagogies and curricula. In schools, there need to be administrative procedures around safety and duty of care that enable students to access, record and learn from and through these funds of knowledge. There are echoes in Meryn’s choral workshops of the Chicago work on integrating artists in schools. Indeed, this is one option. For a period of time, bring the sense of engagement that is part of the community experience to the classroom. Opportunities should be available for students to include learning from alternative learning sites and have that learning recognised. That does not have to be in conflict with recognised syllabus requirements in schools. It can supplement them. Policy makers within Departments of Education need to seriously consider and critique the benefits of accessing these funds of knowledge and actively seek ways to incorporate such access into curricula. It is desirable that pre-service teachers experience alternative learning sites on offer in community settings because forging links and
partnerships with community organisations can enrich and transform a classroom teacher’s pedagogy.

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The effects of a decade of national training reform upon practitioners in vocational education and training

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This paper summarises some of the changes which have taken place for teachers and trainers in the vocational education and training (VET) sector as a result of the rapid changes in policies and practices in the sector during more than a decade of training reform. The paper discusses shifts in initial qualifications and in staff development programs for VET teachers. The shift to competency-based training has privileged assessment while maintaining a supposed focus upon learning; these developments have affected the perceptions of teachers about their worth and the way in which they are valued.

Background

Since the early 1990s, the Vocational Education and Training sector has been undergoing almost continuous change in Australia, as in other English-speaking countries (Smith & Keating, 2003). Traditionally (and still, although to a lesser extent) dominated by TAFE, the sector now offers equal opportunity to private training providers (known, along with TAFE, as Registered Training Organisations) to offer nationally-recognised qualifications. Along with the expansion of the training market - 1.7 million students are now studying publicly-funded VET at any one time (NCVER, 2003) - the other major change has been the move to competency-based training, now enshrined in publicly-available National Training Packages for each of eighty industry and occupational areas (Down, 2002). Training Packages, whose development is overseen and endorsed by the Australian National Training Authority (ANTA), consist of national units of competency, derived from consultations with industry, ‘packaged’ into qualifications, together with assessment guidelines. They are similar to the UK system of National Vocational Qualifications (NVQs) (Fletcher, 1991). The dilution of the power of TAFE and the move to Training Packages have afforded prominence to delivery of nationally-recognised training in enterprises rather than in educational institutions (Smith et al., in progress), and to the increasing opportunity for workers and students to gain qualifications through Recognition of Prior Learning (RPL) rather than through learning programs.

The move to competency-based training (CBT) has been fiercely resisted by many practitioners in the TAFE system and many academic commentators (e.g., Misko 1999). There have been concerns about perceived lower standards because of CBT’s seemingly atomistic learning style, and also about a drop in quality that seems inevitable following dollar-driven competition among providers. A further concern is the privileging of ‘industry’ as a stakeholder above individual learners. All of these concerns have been well documented in various parliamentary inquiries into VET
A major concern of teachers has been that CBT is outcomes rather than input-based and therefore does not concern itself with how students learn to perform the desired outcomes.

Data sources

The paper traces and analyses developments and trends in the work, status and training of VET teachers using the published literature and the following experiences of the author:

- National convenor of the Australian VET Teacher Educators’ Colloquium, founded in 1999;
- Member of the steering committee (2000-2004) for the review of the Training and Assessment Training Package;
- Participation in a number of national research projects on VET practitioners and staff development; and
- Manager of South Australian Wholesale, Retail and Personal Services (WRAPS) Industry Training Advisory Board (ITAB), 2000-2

Overview of changes for VET teachers and trainers

During the 1970s and the early 1980s, TAFE teachers in Australia had a fairly comfortable existence, with teacher training provided free of charge, and with the expectation of secure employment and a steady supply of students. Part-time teachers have always been a feature of TAFE, because many of TAFE’s offerings need to be delivered by people currently working in industry. However, daytime courses for full-time students have generally been delivered by permanently-employed staff. During the 1990s, these staff began to face uncertainty about the future of their subject areas, because of competition from other providers and/or because their industry area was changing rapidly. Teachers also needed to change the way in which they taught, because of the introduction of competency-based training. Increasingly also, TAFE teachers were being expected to identify opportunities for commercial activity and to develop courses to suit a particular employer.

Increasing competition from other providers, and devolution of TAFE systems, has meant that management structures within TAFE systems have changed. TAFE colleges have needed to become more flexible and swift in their response to what is going on in their localities. In some States, TAFE Institutes have become autonomous institutions and every decision is made by Institute management rather than at a State level, bounded only by legislative frameworks.

VET teachers working for non-TAFE training providers have also been affected by the changes. With over four thousand RTOs now registered (www.ntis.gov.au), the non-TAFE VET workforce is much larger than it used to be. RTOs delivering national qualifications have needed to meet requirements for course development and delivery; since 2002 these have been enshrined in the Australian Quality Training Framework (AQTF) (Brennan and Smith, 2002). Courses which attract government funding have additional accountability requirements. Industry trainers, too, are affected, with
enterprises able to accredit their courses and to compete for government funding for their training activities.

Many VET teachers and trainers operate confidently across a range of providers. Particularly in generic subjects such as computing or communication skills, the same teacher may teach at a private college, TAFE and a community college within one town or city. There is now also a large body of school teachers who teach VET Training Package qualifications in schools; however such teachers are outside the scope of this paper.

The VET workforce

It is difficult to establish the size of the VET workforce but it is thought that there are around 40,000 full-time TAFE teachers and perhaps 350,000 people involved in VET teaching and training altogether (Guthrie, 2003). The larger figure involves assessors and others involved in workplace delivery of VET, for whom training might only be a small part of their job. The TAFE workforce is relatively old, with many teachers in their 40s and 50s. In contrast, it is generally believed that private RTO staff are younger than TAFE staff. TAFE is becoming increasingly ‘feminised’ with many male teachers being appointed to teach the relatively new teaching areas such as hospitality, retail and community services while the more traditional TAFE areas such as engineering and construction are in relative decline (Guthrie, 2003). Females are also more likely to be in part-time and casual employment, as in the workforce as a whole (Harris et al., 2001).

TAFE Institutes often find it difficult to attract teachers as the rate of pay is not high. Higher salaries can be earned by practising in the field rather than by teaching. Private RTOs, by contrast, often recruit younger staff early in their careers who are willing to accept a relatively low rate of pay (Guthrie, 2003) In private RTOs, ‘content knowledge’ is not always seen as essential because assessments are often carried out in conjunction with industry-based assessors who have vocational competencies.

Changes in the job of VET teaching

It is usually remarked that CBT has led to a change in the teacher’s role from that of an up-front teacher to that of a ‘facilitator of learning’. Where CBT is delivered in a group situation, rather than self-paced, the role of the teacher may not change so greatly. Teachers often remark that they have ceased to be the ‘fount of all wisdom’ (Smith et al., 1997). Such a change, of course, has its risks and may not be welcome to all teachers, or, indeed, all students. Teachers in a self-paced situation are often sharing a room with other teachers and a large number of students, and thus they have to display their inadequacies to the other teachers (Smith et al., 1997). Traditionally, teachers and trainers have operated in isolation from each other and in a position of power over students, and these changes can be hard to take. Moreover, teachers are now much more responsible for student outcomes, since students’ achievements are measured not by what they know but by what they can do.
In a self-paced system, teachers may be involved in developing learning guides, in working in a team with other teachers to plan and manage the learning for a large group of students, rather than simply turning up to teach a particular class at a particular time. On-line delivery has also created many changes in teachers’ work, for those teachers involved in such programs (Misko, 2002). This wide range of roles can be viewed as an opportunity for professional growth. Teachers can also feel, paradoxically, that their role has narrowed under CBT; in particular many feel that they have to spend too much time on assessment and that their judgement is undervalued (Robinson, 1993: 136).

Because of the increased workplace focus of VET, teachers need new skills to develop assessment tasks which integrate classroom and workplace learning. Many teachers in TAFE and other RTOs are responsible for the training of apprentices and trainees in ‘flexible work-based delivery’ contracts of training (ie who are doing their training on the job and not attending an RTO for face to face training) (Keevers & Outhwaite, 2003). In such cases, visits to worksites involve difficult and sensitive negotiations.

For teachers in TAFE and other institutions, there have been number of changes in working conditions. These changes are often associated with other elements of training reform, and have included widening of the scope of duties, an increased involvement in commercial matters such as tendering, marketing, consulting and working with budgets, more time spent on administration and on travelling to students’ workplaces, and an increase in the number of weeks a year which a college is open. In some States, competition between TAFE Institutes has fractured networking and support opportunities that previously existed.

All of these changes have probably led to some convergence of TAFE teachers’ work with that performed by teachers in private RTOs. TAFE teachers have needed to become more involved with the business of their operations, as private RTO teachers have always been. Chappell & Johnston (2003) note that even those not involved in commercial work have been affected by commercialisation because of the ways in which TAFE Institutes have changed their management structures to meet the new competitive environment.

As mentioned above, some teachers have felt that they have been ignored in recent VET developments. ANTA documentation has frequently failed to mention teachers as an important part of VET, focusing instead on employers, providers and learners as key players. TAFE teachers have felt excluded and offended by this omission (Lowrie, Smith & Hill, 1999), and have also felt distressed that the Certificate IV in Assessment and Workplace Training (discussed in more detail below) has been viewed in some quarters as a sufficient qualification to teach in VET. This contrasts with the school sector where all teachers need to have a degree qualification. Partly in response to these concerns, an organisation was formed in late 1999 called the Australian VET Teacher Educators’ Colloquium (AVTEC). AVTEC members consist in approximately equal numbers of university academics who deliver VET teacher

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3 Comments made by teachers at meeting of South Australian TAFE retail teachers, 2001.
training degree and postgraduate programs, and VET sector personnel interested in teacher status and staff development (AVTEC’s web site is at http://education.curtin.edu.au/avtec/avtec.html). AVTEC acts as a lobby group to remind VET managers and policy makers of the importance of teachers and teaching, and has been heavily involved as a stakeholder in the review of the Training Package in Assessment and Workplace Training.

Initial qualifications for VET teachers and trainers

The professional development of teachers and trainers in the VET sector is a complex matter. As discussed, there are many different types of settings in which they work, and the educational qualifications required to work in those settings vary greatly. There is less of a clear-cut division between ‘initial teacher education’ and ‘continuing development’ as there is for school-teachers.

‘Up-front’ teacher training for VET staff

Traditionally, universities have offered initial teacher training for full-time TAFE teachers: generally these offerings were initially diplomas in technical teaching or adult education. Later, such offerings were upgraded to full degrees, or graduate diplomas for teachers who were already graduates in another discipline. All new TAFE full-time teachers, unless they were already trained teachers, would undergo this teacher training. Commonly, similar courses were offered for instructors in the armed services or other public sector training roles. This ‘front-end’ training was added to by short staff development courses in specific skills or issues, offered by central staff training units in TAFE systems.

Since the mid-1990s the scene has changed quite considerably. Few TAFE teachers are now sponsored by their employers to undertake full teacher training courses. New South Wales TAFE is a notable exception. Three major reasons for this are: budgetary constraints, devolving of decision-making about teacher-training to individual TAFE Institutes, and the existence of the alternative, albeit lower-level qualification, the Certificate IV in Assessment and Workplace Training. The AQTF has cemented the place of this qualification as a requirement to teach in accredited VET courses (ANTA, 2001).

Certificate IV in Assessment and Workplace Training (‘Cert IV’)

During the early 1990s, competency standards were developed for workplace training and assessing. The original Workplace ‘Trainer standards divided workplace trainers into two categories. ‘Category 1 trainers’ were those who occasionally undertook training tasks as part of their work. Category 2 trainers had training as their main activity. The standards for Category 2 trainers were, therefore, more rigorous and detailed than those for Category 1. A Certificate IV in Workplace Training met the Category 2 standards (NAWT, 2001). In addition, workplace assessor standards were developed in 1993. Training for workplace assessors was aimed primarily at people who carried out assessment in the workplace, but was sometimes undertaken also by people who taught in VET institutions.
In the second half of the 1990s, these standards were gathered together into a Training Package, the Training Package in Assessment and Workplace Training. This was endorsed in 1998. Although the title of the Package suggests that it is designed for people who work in a workplace rather than an institutional setting, the Cert IV became widely adopted in TAFE colleges and other RTOs. However, there are some serious problems with the Training Package itself, its delivery and its application. The following list of concerns is taken from the first report of the current official review of the Package (NAWT, 2001). The units of competence are written in words that reflect the work of workplace trainers and not teachers in an RTO setting. While the Cert IV may be suitable for those who perform a limited range of teaching and assessment tasks in a limited range of settings, a problem is that it has been viewed, or at least utilised, as though it is suitable for the full range of VET teaching activity. It has been noted that teachers who only have a Cert IV have a very different approach to teaching from those who have a degree level qualification (Lowrie, Smith & Hill, 1999). Finally, the Cert IV has become notorious among Training Package qualifications for the poor quality of delivery.

State TAFE systems have been worried about the drop in teaching standards which could ensue if their teaching workforce came to consist predominantly of people with only a Cert IV. However, States are also concerned about keeping costs of teacher development down, and most States are currently looking at options where teacher-training can be delivered at least partly in-house rather than at universities. Teacher unions, however, prefer teachers to get qualifications outside their own systems partly to contain the power which employers have over teaching staff and partly to ensure that teachers get a much broader view of VET and have transferable skills. University-level qualifications continue to be sought by some TAFE systems and certainly by many individual VET teachers.

Criticism of the Cert IV has also come from teachers who already have teaching qualifications who resent being forced, through the AQTF requirements, to acquire a Cert IV. Sometimes such teachers think that because they have more advanced qualifications they do not need a Cert IV, even though they may have had no formal training in CBT.

The new Training and Assessment Training Package

The review of the Training Package in Assessment and Workplace Training Package has been in train since 1999, managed by National Assessors and Workplace Trainers (NAWT), the national body overseeing trainer qualifications, which is part of the Business Services Industry Training Advisory Board. The review involved wide-ranging and successive consultation across Australia with stakeholders. The revised Training Package is to be ready for delivery in 2005 and will have a new name.

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4 Conversation with Pat Forward, National Australian Education Union TAFE section president, 2001
5 Many comments on these lines have been posted to the AVTEC discussion list avtec@edna.edu.au and were also directed to the author when presenting a paper on VET teaching qualifications to the South Australian branch of the Australian Education Union TAFE section, in 2001.
Training and Assessment, to reflect an increased emphasis upon teaching rather than assessment.

Competing interest groups are common in Training Package development and review, and this Package is particularly problematic because of its centrality to the VET system, and, since 2001 (when AQTF implementation was being prepared), its links to the AQTF provisions about teaching and assessment requirements. Many of the RTOs involved in consultations have been deliverers of the Training Package rather than simply ‘users’ (in the sense of employing ‘graduates’ of the Package) and therefore had a natural wish to ensure that the new Cert IV qualification was not too different from the old one. Industry representatives sometimes saw little problem with the low level and restricted nature of the existing Cert IV; their needs were quite different from the TAFE system and private RTOs.

Major changes to the Training Package include the inclusion of more pedagogical content, the restructuring of the Diploma so there is a strand that relates to advanced teaching practice, and the introduction of a large number of new units relating to teaching issues such as e-learning, facilitation and individual differences. The proposed revisions are likely to go some way to meeting shortcomings of the Package although some criticisms will remain. There is little mechanism within the Training Package framework to address problems of ‘shonky’ delivery practices; Training Packages cannot specify delivery contexts, only assessment contexts. There remains the problem that the Cert IV could be regarded as a sufficient (rather than base-level) qualification. A further challenge will be transition arrangements, especially any requirements for people with the current Cert IV (of whom there are a great number) to upgrade to the new qualification.

Staff development programs for VET teachers and trainers

Apart from the new Training and Assessment Training Package, the other major national initiative in staff development in recent years has been the Framing the Future program, now entitled Reframing the Future (www.reframingthefuture.net). This program is given a large annual budget by ANTA and funds staff development programs throughout Australia. Framing the Future began by funding action learning groups and was focused on the skill needs associated with the introduction of Training Packages, but the revamped version is broader and involves programs for managers as well as practitioners. The 2003 program has five areas: Policy engagement, staff development, strategic management and change management, information and research dissemination, and communities of practice. AVTEC has recently applied for funding under Reframing the Future to help implement effective embedding and articulation processes of the new Certificate IV in Training and Assessment to university VET teacher-education programs (see next section) but there is resistance from this body to granting any funding however indirectly to universities; this resistance appears to spring from broader rivalries between the sectors.

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Many universities offer VET and adult education teacher education courses at undergraduate and postgraduate levels. Some focus on vocational and technical education; others on adult and community education. In general, those courses more recently developed such as Charles Sturt University’s Bachelor of VET and associated courses, are more focused towards practitioners wishing to work in the accredited VET sector. Most courses also offer articulation arrangements for students who have Assessment and Workplace Training Cert IV or Diploma qualifications. Several also embed the Certificate IV into their courses, in partnership with RTOs, allowing students to exit the course with a Cert IV as well as a degree or post-graduate qualification (Smith & Pickersgill, 2003).

At the State level, State Training Authorities (STAs) have been concerned with helping RTO staff, particularly those from non-TAFE providers, to deliver good quality training and assessment and to cope with changes in the VET system. Such staff development programs recognise State Training Authorities’ responsibilities in relation to quality. Many STAs offered extensive training programs around the implementation of the AQTF; and some States, For example, South Australia, offer regular briefing sessions for RTOs.

Apart from initial training, staff development usually occurs as a result of the need for new skills or new approaches to teachers’ and trainers’ work. A study of staff development in VET found that most stakeholders believed that half of VET teachers did not have most of the skills and knowledge which they identified as being important in the near future (Harris et al., 2001). Part-time, older and casual staff were perceived to possess the necessary skills and knowledge to a lesser extent than full-time and younger staff (Harris et al., 2001: vii). A special need for VET teachers is to keep up to date with trends in the industry for which they prepare students. Maintaining technical currency is an important driver for staff development (Holland & Holland, 1998).

Some TAFE systems still maintain central staff development units, whilst others have decentralised this function to Institutes or colleges, in line with general decentralisation processes. Western Australia is an example of a system which decentralised and then recentralised its activities during the 1990s. Certificate IV. Private RTOs are much more likely than TAFE systems to expect teachers to join them with all their skills ready-made rather than offer training for them (Harris et al., 2001)

Conclusions and the future

This paper has traced the changes in the role of VET teachers and trainers and the provisions that have been made for their initial training and subsequent development. The changes in working environment, especially for TAFE teachers, have been quite immense and it is not surprising that defensive reactions have been provoked. Teachers have been concerned about the absence of an emphasis on pedagogy, both in official discussion about the training of learners, and in the delivery of the Certificate IV in Assessment and Workplace Training. Teaching as a component of the VET system has often seemed to be absent from the official ‘discourse’ of the VET system
(Lowrie, Smith & Hill, 1999); For example, there are ANTA awards for apprentices, trainees, other learners, training providers and employers, but none for teachers. Teachers have therefore been concerned about the future of their profession. The formation of AVTEC was in part a response to the changes and created an ‘emotional space’ in which to pour out feelings through the email discussion list as well as to try to influence the sector towards more pedagogical emphasis.

The most recent developments in VET have, however, been encouraging for teachers. The new Australian National Training Authority (ANTA) strategy for 2004-2010 (which can be viewed at www.anta.gov.au), produced from extensive national consultation, signals some changes of emphasis in the VET system. There appears to be a greater emphasis upon individual learners and upon communities as compared with industry; and a greater emphasis upon TAFE as the public provider and its special role compared with non-TAFE training providers. Also in the national strategy and in other current developments in the VET system, there seems to be a greater emphasis upon teachers and their work.

Teachers and teaching are now being discussed more often and in all policy forums. ‘VET pedagogy’ is now a phrase being used within the VET system and senior TAFE managers have been talking since the turn of the century about ‘putting learning back on the agenda’ (e.g., Shreeve, 2002). Studies have been commissioned in several states to establish standards (sometimes described as ‘capabilities’) for VET teachers (e.g., Rumsey, 2002). A current research project is examining constructions of learners and learning in the Certificate IV in Assessment and Workplace Training, to examine how people who are undergoing that form of teacher-training are taught to think about teaching and learning (Simons et al., forthcoming). As has been discussed above, the new Certificate IV in Training and Assessment includes much more pedagogical content, and for this very reason is meeting resistance from many industry trainers and their representatives, and from post-training reform CBT enthusiasts. A Reframing the Future staff member recently said to the author, for example, ‘assessors are concerned that too much emphasis is being placed on teaching’.

Whether because of the influence of bodies such as AVTEC, or because there is a greater understanding that quality in VET can only be achieved by skilled and experienced teachers, the pendulum has swung away from assessment and industry standards towards teaching. It is likely that the ascendancy of Labor governments in States and Territories has assisted this swing because a renewed emphasis upon the public provision of VET has made the role of teachers more visible and has also led to renewed investment in VET infrastructure including bodies concerned with teacher quality. From a low point in the late 1990s, therefore, the VET teaching profession has entered a period of greater optimism.

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Collaborative course design and mapping: A team approach to course development and review

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At the heart of the successful reform of teacher education is the well-documented need for more responsive and coherent teacher education programs. Contemporary research in school reform requires that undergraduate and graduate preparation programs model key reform characteristics in their design and implementation. They include: building collective intelligence, focusing on instructional differentiation and the use of information technology. In this paper, we will describe a collaborative course development methodology in the area of inclusive education that includes examples of the key reform characteristics. We will describe our current progress and the broader research and course design agenda associated with the project.

Less than 5% of general education teachers in the US have been prepared to meet the challenges and demands associated with the inclusive classroom (Villa, Thousand & Chapple, 2000), and there is little evidence to suggest that the circumstances in Australia, and specifically NSW, are any different (NSW Public Inquiry 2001; Winn & Zundans, 2004). While this statistic and others like it may appear to reflect a significant “special education” problem, it is in fact representative of a much more expansive issue. For many, the term inclusion connotes an agenda associated with the needs of lower incidence, formerly “special populations.” However, such a connotation pertains only to the magnitude and direction (of need), given the long-standing presence of a broad range of student aptitudes and achievement histories in all schools and classrooms (Stedman, 1995). Any additional demands created by the inclusion of more diverse learners in mainstream classroom settings reflects the fundamental challenge of every classroom and school—the need to differentiate curriculum and instruction to deal with diversity (Sarason, 1996).

Given that all schools have significant needs in this regard, inclusion more accurately represents a comprehensive school improvement challenge than a special education issue (Lipsky & Gartner, 1997; Gartner & Lipsky, 2000). As such, the pressing need for teachers who are qualified to address learner diversity extends well beyond the requirements of special education to the totality of schools in all sectors and at all levels.

In this paper, we will describe a research and practice agenda that seeks to improve teacher preparation for inclusion. The specific purpose of this paper is to describe work in progress on a collaborative course design partnership involving Charles Sturt University and a field-based partner organization. Our primary goal is to address critical needs in the areas of inclusion and the reform of teacher education by building a collaborative course development process that includes our field-based partner,
while also engaging the stakeholders within our own institution. We will describe our efforts within the broader context of school and teacher education reform. The description will include methods for course mapping, subject design and the role of technology in the process.

Inclusion and educational reform

Making classrooms more responsive to diverse learner needs is a goal and purpose of nearly all educational reform movements including comprehensive school reform (e.g., Berends et al., 2002; Herman et al., 1999) and the reform of teacher education (e.g., Australia’s Teachers, 2003; Fullan et al., 1998; National Statement 2003; What Matters, 1996). Advocates of inclusion have long recognized a commonality in the goals of these educational reform movements and the way their agendas cohere around the provision of an equitable education for all students (Gartner & Kerzner Lipsky, 1997). The inclusive education movement also represents a powerful driver for shaping and clarifying the agenda of school and teacher education reforms. Inclusion is a dynamic concept that focuses simultaneously and interactively on student need, teacher capacity and the learning context. It can provide many of the “how to” answers about translating school and teacher education reform into classroom practice. This is especially important given that the practical manifestation of many educational reforms has been to increase accountability through the high-stakes testing of students. Institutions that “measure up” are rewarded. Those that do not are sanctioned (Peterson & Deal, 2002). This strong focus on outcomes and product in the absence of attention to process can actually undermine efforts to address diversity and inclusion. “Raising the bar” is only viable if students and teachers have the skills to make new goals attainable.

Teacher preparation for inclusion

Highly skilled inclusive educators are essential if efforts to raise standards are to be reconciled with better learning processes for all students. It is the capacity of teachers that ensures those inclusive values based on equity, entitlement, community participation and respect for diversity are actually translated into action. For inclusion (and broader reforms) to be effective, that action must play out in classrooms with teachers and students in a manner that reduces barriers for all learners (Booth, Nes & Stromstrad, 2003). The need for more responsive and coherent teacher education programs that respond to diverse student needs has been well documented (Groundbreaking Teacher Preparation, 2000; Fullan et al., 1998). This includes building collective intelligence through university and school/system collaboration, a focus on essential teaching competencies, and attending to the contemporary forces that are shaping schools and classrooms, including instructional differentiation, the use of information technology, and building deeper curriculum understandings (Groundbreaking Teacher Preparation, 2000; Fullan et al., 1998; Northfield & Gunstone, 1997; Tom, 1997). The effect of the inclusion movement on the broader reform of teacher education is provided by examples of the integration of regular and special education teacher preparation. Beginning in the mid to late 1990’s there have been efforts to reconcile discrete regular and special education training programs around a common core of integrated preparation (Hardman, McDonnell & Welch,
1998). In an inclusive approach, the student and the learning process replaces the disciplines of regular and special education as the key organizing parameters in teacher preparation. The result is to position the core skills and competencies required of all teachers at the centre of course design efforts. It is within this context of common reform agendas and the opportunities they create, that our current work is focused. We recognize that reforms in schools, inclusive education and teacher education should be reflected in the way teacher preparation courses are designed and delivered. Our goals seek to build process and product for doing so that can be applied within our own institution and may be useful for course development in other settings.

Goals

This paper and the research and practice agenda it describes stands at the confluence of the needs and opportunities associated with inclusion, the reform of schools and teacher education. Our goals are fivefold:

- To build a university course design and development methodology that includes both university educators and agency representatives working in collaboration.
- To employ the methodology to create a graduate program of study in inclusive education that is responsive to the needs of practicing teachers.
- To make a contribution to teacher education reform by reforming practice within our own institution.
- To develop emergent theory and methodology that can be used by others as a term of reference and framework for similar efforts in other institutions.
- To develop new collaborative technologies necessary to expedite the process of subject and course development.

Current challenges and our responses

In developing our approach we have used the following factors identified by Duke (2004) as a guide for our process. They include: “ensuring that a legitimate educational need is being addressed by a design that reflects an understanding of how people learn, is supported by research and professional judgement, considers local conditions, does not adversely affect any particular group of learners and is efficient” (p. 94). What follows is a description of the current challenges we face in pursuit of the five goals and the responses that are shaping our design and research agenda.

Absence of theory and meta-perspective

Innovations in school or teacher education reform can almost always find theoretical metaphors for their design. Whether it is in the application of constructivism to the design of new authentic assessment approaches in a school reform model or in connecting the scaffolding approach for a new degree structure to its antecedents in schema theory, backward mapping to theory is always possible. However, what is frequently overlooked in reform efforts is the practical meta-theory necessary to interface the content, process and implementation of an innovation with the systems, people and processes that it seeks to engage and impact. The problem here is the lack of an inclusive theory that informs the process moving forward and addresses such questions as constituent buy-in, system alignment, feedback and evaluation. While a
full explication of the theory base for our work is beyond the scope of this paper, our overall goal is to produce an emergent theory for the reform of teacher education programs based upon existing theoretical work in the areas of complexity and self-organization (e.g., Kauffman, 1995; Pascale, Millemann & Gioja, 2000; Merry, 1995). These theories, with their strong focus on the relationship among agents and systems, the role of unifying schema, the nature and structure of mutual interdependence and dispersed control seem to be especially resonant for addressing concerns associated with change in higher education settings.

Best-fit and discipline-based mapping approaches

Our work is also a response to an important pragmatic need associated with contemporary practice in course development and specifically the way courses are mapped to ensure coherence and the coverage of key curriculum learning areas. We would describe this as the problem of best-fit mapping. This is the propensity for mapping exercises to become a descriptive matching process rather than a design-oriented methodology largely as a function of the methods used to define, describe and then map the domains of interest. For example, a common course mapping practice, involves placing two key dimensions (Course Title and Key Learning Area) on a mapping matrix. Subject and course coordinators then complete the matrix by identifying the new and existing ways their courses address (best-fit) the learning areas described on the mapping matrix. The goals or outcomes of the course are shared along with assessment points (in some cases) and judgments follow regarding the extent to which those outcomes address a particular learning area. The completed matrix is then used to establish what should be retained, deleted or added to the overall course structure. This type of mapping exercise proceeds in a manner analogous to a scope and sequence exercise where a successful outcome is based on the extent to which the matrix represents a best-fit depiction of the coverage and expected outcomes and of the subjects in the course. The product is a general description of what is covered in the total course based on the assumption that the course design, the expected outcomes and products underpinning the description provides a coherent, high quality and interconnected treatment of the areas of interest. The driver for the process is the need to ensure that courses are up to speed with high value learning areas and those subjects cohere as a total curriculum reducing fragmentation and redundancy. The issue with this approach is that course coherence cannot be established using such a process nor can it be assumed in the absence of a methodology that translates “big picture mapping” into small “d” design at course and subject level. Our response to this issue is a five-step process undertaken collaboratively by all of the stakeholders in the course design process. It includes:

Schema building

Schema building involves developing a term of reference for the design process (in this case, the meaning of inclusive practice and how it should manifest in the beliefs and values of stakeholders in a course design approach). To build a schema, stakeholders share their values and beliefs in a participatory process that yields a common term of reference for the overall course design and implementation. The schema is used to help the stakeholders pool their collective capabilities around a
common term of reference that will inform all future activity. It is a dynamic map from which a design process can emerge.

**Mapping authentic products**

The second step in the mapping process involves building a matrix that, from a conceptual perspective, is not unlike the method employed in the descriptive mapping approach described previously. What is different about the process are the domains used to define the matrix. An authentic mapping matrix replaces learning area with teacher competencies. The competencies are derived from a review of national and international standards and guidelines, in this case in the area of inclusive education (e.g., NSW Draft Professional Teaching Standards, 2003; Preparing Teachers, 2001; Australian Association, 2002; Council for Exceptional Children, 2001). Authentic product as defined by portfolio items replaces course titles on the matrix. To complete the planning matrix the design team describes those authentic products required to meet the competencies.

**Clustering**

The third step in our response is to examine the products described on the matrix and identify the subject structures required to create or build those products. This is undertaken using a modified Q sort (Stephenson, 1953) approach that enables key stakeholders in the process to identify those common-sense connections necessary to organize the products into clusters and give them a curricular and instructional home. These become the subjects in the sequence. As part of this step a capstone experience for each subject and the course is identified along with any subordinate portfolio products. The clustering process takes a zero sum approach to the need for subjects and the prevailing historical precedent for their existence, by making the subject emerge from the authentic products required to meet the course competencies. After the products are clustered they are ordered into a developmental course based upon the perceived need for prerequisite knowledge or as a function of other criteria identified by the team.

**Developing learner expectations**

Our fourth design step is to map-backward (Dimmock, 2000) from the clusters of assessment products that comprise the subjects to identify the expected learner outcomes for each subject sequence. This step results in the identification of those specific learner expectations required to create the portfolio products (Wiggins, 1998).

**Collaborative design and teamwork**

In the fifth step of the process the portfolio products and outcomes are used to build a general design framework for each subject. The framework is built collaboratively by the design team to ensure maximum cohesion within and across subjects. This process or step includes matching the learner outcome or expectations with a specific focus topic or question, a pedagogy, and appropriate time allocation as part of an instructional framing activity that builds the skeletal structure of each subject in the
course sequence. After the completion of this step, individual instructors assume responsibility for the subject development process.

One of the key goals of our research agenda pertains to the self-organizing capability of faculty members in pursuit of teacher education reform. We will establish whether it is possible to develop sufficient mutuality of interest and purpose to capture the benefits of pooling collective intelligence as part of a collaborative design process (Waldrop, 1992). We recognize that collaboration is not part of the experience base of the majority of faculty and seems less likely to occur among professionals in differing areas of specialization (Tom, 1997). Collaboration requires professionals to leave personal prejudices and attachments outside of the process and inject their professional expertise. This level of sophistication in communication requires awareness building and training which is rarely innate or a mandatory part of professional development (Zundans & Hollitt, 2004). As a response to these challenges, we have adopted a model of collaborative problem-solving derived from the work of Idol, Paolucci & Nevin (1986) that is employed in all meetings and group activity related to the work of the design team (Bain, 1993). We are extending our use of this collaborative process to our partner group in all phases. This means that our Inclusive Education Design team will work with members of the partner group in each phase of the design process. The goal is to capture the proactive contribution of stakeholders in the conceptualization and design of the program. It is our expectation that this participation will create mutual interdependence, better solutions to design issues and greater commitment to the implementation of the program.

The role of technology

Anytime a single step event is replaced by a multi-step design, it is logical to assume that concerns about practicality, time, and implementation will follow. Not surprisingly, these are resonant concerns associated with nearly all educational reforms (Tyack & Cuban, 1995). The challenges associated with doing things differently can be addressed, in part, by technology. By embedding our five-step process in the design of a set of software tools we can use the power of relational database technology to create an accessible and transparent software system to empower the design process. One of our research goals is to adapt a suite of tools first developed for the purpose of curriculum design in secondary school reform (Bain, 2000; Bain, manuscript submitted for publication; Bain & Huss, 2000) for the current research agenda. The design team will use the adapted tools to complete steps two through five of the course development process.

Research agenda

The research agenda associated with the project will reconcile our teacher education reform and inclusion goals. We will study the design process as a change initiative within our institution with a view to testing and refining the methodology and producing a theory of self-organization as it relates to the design and development of course structures. In doing so, we will establish the extent to which the process yields self-organizing curriculum solutions, the role of feedback and collaboration in the design process, and whether the approach addresses the traditional barriers associated
with the reform of teacher preparation including the way in which the methodology evolves and adapts over time. We will also examine the impact of the course product within our partner system examining its impact on teacher efficacy, inclusive practice and student outcomes. This second agenda will be shared with our partner as part of a joint effort. In doing so, we hope to build a longitudinal qualitative picture of the impacts of our course design efforts on inclusive practice, linking a teacher preparation reform initiative to inclusive practice and reform in schools. As a related issue we will study the way technology can be used to make an intelligent contribution to the design process.

Progress to date and next steps

As of the date of writing we have met the following implementation milestones:

- Established the Design Team within our Institution
- Built the design model described in this paper as part of a collaborative process
- Conducted Two workshops to reach consensus on our operating assumptions
- Conducted a literature review for the Authentic Mapping Matrix
- Established a working relationship with a field-based partner
- Undertaken a preliminary review of the software to identify modifications necessary for its use in the current context.

Our immediate next steps include: completion of the authentic mapping process, detailing our research plan for the purpose of grant acquisition and completion of the Clustering activity. These steps, we hope will be completed within the next 3 months with a view to beginning the actual subject design process in the latter part of the year.

Summary and conclusions

In this paper, we have described a research and practice agenda that seeks to improve teacher preparation for inclusion. Our goal is to show how multiple reform agendas can be reconciled in one educational reform initiative. We have shared a design process that addresses critical needs in the areas of inclusion and the reform of teacher education, that also includes a field-based partnership. We recognize that much of the work in implementation lies ahead. However, we believe that our work to date has established a foundation with the potential to address an immediate course design need as well as major issues and barriers in the reform of teacher preparation. While our efforts represent a pilot within our own school and institution, we also recognize that by focusing on the design process as well as the course product we can increase the likelihood that the design will have scaleable potential within our institution and beyond. This includes addressing issues related to the reconciliation of special and regular education, providing a collaborative alternative to the prevailing autonomous teaching model, in informing the course mapping process and improving the overall quality of instruction. We also recognize that our technological initiatives can assist to move the role of technology in higher education beyond the automation of existing practice toward its use in a manner that also addresses questions of the quality of pedagogy and curriculum design.
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The impact of a field experience program on preservice teachers in elementary mathematics

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Legislative reforms initiated changes in field experience at a Western United States University. During the final student teaching experience, preservice teachers were asked to teach mathematics to a small group of students for a 3-month period. Data analysis revealed significant achievement gains for all of the elementary students. Preservice teachers’ understanding of pedagogy and assessment evolved significantly as they experienced first-hand the impact of instructional choices on their students. All of the preservice teachers became strong advocates for a differentiated pedagogical approach that considers individual student needs. The preservice teachers expressed confidence in their ability to begin their teaching careers.

As society becomes more complex, pressure for educational change comes from the business community, professional organizations, and, more recently, from government legislation (Becker & Jacob, 2000). Teacher education reform is inextricably interwoven with public school reform. One tool of reform has been the development of educational standards. Assessment of these standards has in turn led to state level tests in the U.S.

Because teacher preparation programs inherit much of their culture from the standards and practices shaping life in our public schools, the politics of high-stakes testing has become increasingly influential in the decision-making processes associated with curriculum and instruction in undergraduate teacher preparation programs (Brawdy & Egan, 2001, p. 438).

As a result of legislation like Senate Bill 99-154 in Colorado, teacher licensure requirements have been changed and university education programs are to be judged on the basis of the performance of their teacher candidates (preservice teacher). All Colorado universities, including Mountain University (MU), are entwined in the new teacher licensure standards and the necessity to adjust teacher education programs.

Emphasis has always been given to effective teaching practices during the internships of preservice teachers at MU. In general, effective teaching practices are selected according to impact on student learning (McEwan, 2002). One approach of assessing preservice teacher teaching performance is the use of performance-based assessments (PBA). PBA developers integrated current pedagogical research data, university and partner school needs, and the Colorado teacher standards.

Background

The latter part of the twentieth century has seen a shift from a purely scientific approach to teacher education to recognition of the art of teaching (Bryan, Abell &
Anderson, 1996). Studies indicate that preservice teachers, when exposed to reflective mathematics methodology in a supportive environment, can learn to manage learning environments effectively, develop sensitivity to students, and engage students in mathematics inquiry (Clock, 1999). Clock suggests that preservice teachers can learn effectively with small groups of students and need to be given multiple opportunities to reflect on students’ mathematical thinking.

Part of the teacher-education reform movement must involve a renewal of assessment processes. Appropriate assessment of preservice teachers’ readiness to begin teaching is an essential element of all programs. The aim of preservice teacher assessment is to determine whether a preservice teacher has the kind of professional knowledge, ability, and ethics needed to teach effectively (Brookhart & Loudman, 1995). Competency tests are insufficient to examine content, pedagogy, curricular knowledge, and interpersonal skills, as well as an ability to work with students.

**Authentic assessment**

According to Schalock, Schalock, Cowart, and Myton (1993), it is rare for teacher licensure programs to assess on the basis of student performance, and yet this is clearly an important aspect of teaching. It is essential for preservice teacher evaluation to emphasize the use of knowledge (Yarbrough, 1995). In addition, Pasch (1995) alludes to the importance of developmental assessment over time. Many programs look to the use of PBAs that allow preservice teachers to “show” what they can do in authentic situations.

Student learning is the professional touchstone for both teachers and teacher educators, and the professional status of either will grow only when teachers are demonstrably able to nurture the kind and level of learning in students that is deemed essential for our nation at a particular point in time (Schalock, Schalock, Cowart & Myton, 1993, p.108).

**Impact of preservice teachers on students**

Studies have indicated that interventions by preservice teachers in small group tutoring can impact significantly on elementary students’ reading levels (Hedrick, 1999). Mewborn (1999) found that small group tutoring in mathematics by preservice teachers can actually reveal information about elementary students’ learning that was previously unknown by their classroom teachers. This is probably due to the individual attention given to students in the group over a sustained number of weeks. Students in Mewborn's study made gains in mathematics achievement.

**Conceptual framework: Performance based assessments**

Wilson (1995) indicates that preservice teacher assessment should have certain essential components. In particular, evidence of active student engagement and resultant achievement must be part of an effective assessment process. Teacher licensure must demand that preservice teachers demonstrate application of the knowledge learned in their university courses (Shalock et al., 1993). Many teacher education programs are moving to alternative assessment methods such as PBAs as a
means to assess preservice teachers (Turner, 2002). PBAs allow the development of preservice teachers over a period of time (Baron and Wolf, 1996).

According to Snyder, Elliott, Bhavnagri, and Boyer (1993-94), assessment should provide feedback to assist both the preservice teacher and the program as a whole. The use of PBAs promises to give important feedback to universities about their teacher education programs. In addition to assessment information, PBAs can assist in the development of effective teachers by allowing preservice teachers to align theory with practical experience.

According to Johnson (1996), using performances in assessment implies a particular structure. He describes eight main parts to a performance:

- involves a complex goal and requires good judgment
- results in a “whole” that is more than the sum of the parts
- is personalized by the student
- allows for refinement during the process, has known criteria, and gives many opportunities to demonstrate criteria
- does not involve “pat” responses and indicates mastery of criteria
- is judged according to impact, rather than the process used by the student
- requires appropriate adjustments when errors occur
- results in student autonomy, where little assistance is required by completion

Methodology

Two of the research questions addressed in this study are as follows:
What did preservice teachers learn about pedagogy and/or assessment from the PBA?
How are preservice teachers’ attitudes towards teaching mathematics affected by developing and implementing the lessons from the PBA assignment?

Participants and location

The preservice teachers who participated in this study were in their final internship in the same partner school that they had worked in throughout their teacher education program. This particular PBA was only one part of their overall internship. The study was conducted at Mountain View School with five preservice teachers and 24 elementary students in grades two and five. The school is an alternative public urban school of choice available to students pre-kindergarten through twelfth grade from throughout the district. Parents, students, and teachers choose the school because of the emphasis on self-directed learning and active participation in the learning process in and out of the school setting. Students are organized in multi-aged groups based on interests, needs, and developmental levels.

Structure

During this study, preservice teachers took total responsibility for the mathematics instruction of between four and seven elementary students. The preservice teachers worked with their group of students on a daily basis for three months. In addition to
mathematics, preservice teachers taught all subject areas to the whole class and this included a two-week solo block.
The following lists details the PBA requirements for each of the preservice teachers:

- administer Colorado School Assessment Proficiency (CSAP)-like tests to elementary students
- grade the tests with clinical teachers
- select students for the group with clinical teachers and the site coordinator
- interview students
- examine examples of students’ work
- write case studies of each student’s mathematical strengths and weaknesses
- determine individual and group goals
- design instruction for the group
- administer instruction
- conduct ongoing assessment of students’ achievement
- administer CSAP-like tests after three months of instruction
- grade tests
- reinterview each student
- write summaries of each student’s progress during the three months
- write a summary of the PBA experience.

Interviews, on educational philosophy, pedagogical beliefs, and knowledge of student’s learning were conducted with each preservice teacher at the beginning and end of the study. Throughout the instructional period, preservice teachers conducted ongoing assessment of student progress. Preservice teachers met in focus groups with their peers to express any concerns, discuss group progress, and seek advice concerning instructional queries; preservice teachers also kept daily journals concerning all aspects of their individual mathematics groups. The journals included lesson plans, work samples, ongoing student progress information, student problems, and preservice teacher reflections.

**Data**

Both quantitative data, in the form of pretests and posttests for the elementary students, and qualitative data, in the form of interviews, focus groups, journals, observations, and artifacts were collected during the study. Test data was analysed statistically and interpreted with the additional qualitative data concerning student achievement. Codes arose partly from the literature review and partly from emergent themes following an initial reading of all documents. Each document was then examined on the basis of the selected codes and coded accordingly.

Following this initial analysis, I used the model function to visually display the codes and their connections. This allowed me to see more clearly any relationships between the data. Documents were recoded as new codes emerged and were examined both vertically across all of the teacher candidates and horizontally for individual teacher candidates. Fontena and Frey (1994), who advise researchers to interpret both individual instances and an aggregation of instances, espouse this method. I conducted searches for relationships using groups of codes and participants.
In general, analysis was used to both filter and funnel data. Context and relevance determined the importance given to individual pieces of data. Each stage of analysis led to an aggregation of themes into main categories and ultimately allowed the research questions to be answered. To allow the reader to interpret the data, a quasi-statistical method was used to count the number of times particular themes were mentioned (Ratcliff, 2003).

**Results**

*Pedagogical understanding*

Initially, preservice teachers spoke about the general need for differentiation and discussed the use of various methods in very broad terms. As the study progressed, preservice teachers gained awareness of different factors that affect instructional choice.

For example, Bob developed what he described as a balanced instructional approach. He determined that repetition was necessary for most of his group to learn procedures but hands-on activities assisted with motivation and conceptual understanding. He observed the impact of success and chose activities that interested his students.

Jill worked very reflectively and continually autopsied her lessons. Through her search for the optimum instructional methods, Jill became adamant about the necessity for knowledge of each student’s needs, learning preferences, and interests. As part of this process, she discovered her personal preference for hands-on learning and commented that “math actually made sense”.

Although the instructional philosophies had many similarities, there were some distinct differences between the preservice teachers according to their group level. Bob and Bethany, with second grade groups, determined that peer tutoring was largely unsuccessful. Conversely, Jill, Susan, and Mary, with fifth grade groups, all spoke positively about peer tutoring. They discovered it to be a powerful tool for both the tutor and students.

Without doubt, the most significant shift was towards an emphasis on individualization. Although some preservice teachers had mentioned individual needs in their first interview, explanations lacked any substance. By completion of the study, preservice teachers used more accurate and specific language in relation to pedagogy. Examples to verify their beliefs were given and it was clear that preservice teachers understood the connections between theoretical pedagogical philosophies and actual students.

*Understanding and use of assessment*

At the beginning of the study, preservice teachers named various assessment options but did not seem to make clear connections with instruction. As the study progressed, all preservice teachers used multiple forms of assessment, much of which involved
informal observations and discussions with their students. They expressed understanding of the importance of using assessment to inform instructional choices.

When asked what he had learned during the PBA, Bob observed that assessment can take many different forms, that it doesn’t have to be a standard “pencil paper” test. He was excited at being able to recognize students’ understanding from various informal means: “It was exciting to see the light bulbs turn on when they could explain a concept to me. For me, I learned again to let go of the control when the kids were doing things, like cutting wood, and just keeping a watchful eye on them”.

Mary responded as follows: “The most important thing I have learned is to be constantly assessing kids as you go through a series of lessons. If you don’t, you might think it all makes sense but you get to the end and do an assessment and find they didn’t understand something at the beginning, and also to provide feedback”.

**Elementary student achievement**

Positive changes in test scores were evident for all elementary students (see Table 1). The mean increase in test scores was 28%. The standard deviation of 16 was quite high, as increases actually varied from 7% up to 55%. This difference, however, does not diminish the results, as in all cases students displayed an increase in test scores.

The relatively high variance is basically an indication of the heterogeneity of the students as well as a result of the small number of students (24) in the study. The real significance of the data is seen in the individual progress made by each of the students. Clearly, the group experience positively impacted each student’s mathematics test achievement.

<table>
<thead>
<tr>
<th>Test Categories</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>51</td>
<td>435</td>
<td>21</td>
</tr>
<tr>
<td>Posttest</td>
<td>79</td>
<td>204</td>
<td>14</td>
</tr>
<tr>
<td>Change</td>
<td>28</td>
<td>247</td>
<td>16</td>
</tr>
</tbody>
</table>

**Management**

Management issues frequently dominate a preservice teacher’s time. The preservice teachers in this study were no exception to this observation. Early journal entries and focus group discussions often centred on behavioural issues. Data indicated that management concerns were more significant at the beginning of the study and became more minor with time.

During the first focus group, doubts about management emerged. Bob spoke about some problems he was experiencing and added “I am concentrating on keeping the kids engaged for the 25 minutes that I get them”.

Over time, preservice teacher confidence and, consequently, attitudes significantly improved. Secondly, preservice teachers’ knowledge of student needs resulted in
more appropriate instructional choices and, consequently, a higher level of engagement. Finally, preservice teachers developed better behaviour management skills and were able to deal with situations more effectively.

After becoming more confident with behaviour management, preservice teachers began to focus on other management areas and in particular time management. They soon discovered that activities took longer than planned. All preservice teachers agreed that while planning was extremely important, so too was flexibility. Plans were often altered due to last minute responsibilities such as CSAP supervision, school activities like community service, and individual interests such as music. In addition, individual needs as diagnosed by students’ response to activities and through discussion in the groups, dictated frequent changes in instructional plans.

Preservice teacher learning

Jill (preservice teacher) wrote the following at the conclusion of the study:

I would say that I have grown a lot as an instructor during this math PBA. I learned about getting to know your students and their unique strengths and weaknesses, different learning styles, planning, instructing and assessing. I will take all of this knowledge and experience with me in the future when I will be teaching my own classroom!

Despite some initial reticence, by the study completion preservice teachers expressed excitement and confidence for teaching mathematics. All of the preservice teachers gained more enthusiasm and assurance for teaching mathematics. One preservice teacher wrote “This was a positive experience for us all. It was exciting to see the light bulbs turn on when they could explain a concept to me.” Their eagerness to use newfound skills in their future classrooms was evident.

Conclusions and implications for further research

The introduction of teacher standards needs to be viewed positively. Each of the requirements is clearly important and an appropriate skill for a beginning teacher. Firsthand experience with crucial aspects of teaching have allowed preservice teachers to develop a more mature and realistic knowledge of pedagogy.

PBAs have the potential to provide valuable information to teacher educators by giving evidence of proficiency in teacher standards. This holistic approach fulfills the dual roles of both instructing and assessing preservice teachers. Observing performance in an authentic setting gives additional credence to the preservice teachers’ knowledge and skills.

As preservice teachers observe first hand the impact of using particular teaching methods, they naturally incorporate the most effective methods into their teaching. It is not necessarily an abandonment of beliefs but rather a change in emphasis or modification of mathematics pedagogical philosophies. In general, preservice teachers conclude that a balanced approach with particular attention to individual needs is the most effective practice.
During the PBA, preservice teachers were able to experiment safely with different aspects of pedagogy. Control of the small groups allowed preservice teachers to implement varied instructional and assessment strategies. Adjustments were continually made according to the effectiveness of the chosen strategies. Having the ability to change goals and instructional methods provided preservice teachers with a unique “teaching laboratory”.

In addition, preservice teachers developed management skills without the constant scrutiny of supervision. Differentiating for students based on individual learning and behavior needs presented preservice teachers with a microcosm of their future classes. As a result, they became more confident and well-prepared for their teaching careers.

Participation in a highly open-ended and extended teaching activity, such as the elementary mathematics PBA, is quite empowering. The lessons learned about pedagogy through the PBA have planted seeds that can continue to grow and develop. The pedagogical cycle of reflection engaged in by the preservice teachers should encourage life long learning and development as teachers.

**The future of PBAs in teacher education**

In order to ensure proficiency of standards and to maintain the integrity of teacher education programs, PBAs may be increasingly used. PBAs have both formative and summative assessment components. As a result, teacher educators are able to track performance and give feedback over time.

Although PBAs are quite time-consuming, they can be designed to incorporate multiple standards and experiences for preservice teachers. As responsibility for action is transferred to the preservice teachers, PBAs are an ideal bridge between teacher education and becoming certified teachers.

**Future directions of research**

There are three main areas of research that lead directly from this study. First, a similar study in a different setting will provide important information concerning the generalizability of the results. While it is likely that the impact on preservice teachers and their students will be similar in other schools, further evidence is required.

Finally, a study of the preservice teachers during the first few years of their teaching careers would give more information concerning the impact of PBAs on subsequent pedagogical practices.

**References**


Redefining teacher education through a ‘multiple space’ model: Examining the forgotten spaces that teachers work in

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This paper maps the current debates surrounding school-based and university-based teacher education models, and presents a ‘multiple-space’ model of teacher education that both explores and values the many ‘forgotten’ spaces that teachers work in. It draws from a variety of research studies, including my own doctoral work, to argue for a new approach to teacher education programs. I suggest that in order for teacher education to move beyond separatist, binary models, we need to adopt a ‘multiple-space’ view of learning to be a teacher that embraces the notion that teachers do not learn about theory in a university space, nor do they simply work in a classroom space.

University-based teacher education programs

Many Australian universities continue to adopt a ‘university based’ teacher education program, a model of teacher education where student teachers pre-dominantly attend lectures and tutorials and then attend a set, block practicum experience in a school. Practicum is defined as the time spent in a school setting by pre-service professionals with a supervisory teacher. In this ‘traditional’ teacher education model (Ryan, Toohey & Hughes, 1996, p.361), the university assumes the major responsibility for the facilitation of learning by providing extensive academic preparation before placement. The purpose of the practicum is conceived as the induction of the student into the profession through the acquisition and correct application of professionally relevant knowledge.

Within this model, the school is viewed as the site where student teachers practise what they learn at university and hone their teaching skills. The practicum is conceptualised within a view of teaching as applied science; the student teacher’s job is to apply, during practicum what has been learnt in university. This model however, although still dominant in many Australian universities, is flawed. Many research studies have explored the problematic nature of separating ‘theory’ from ‘practice.’ The work of Zeichner, (1992), Cambourne, (2001), Gore, (2001) and Darling-Hammond, (2000) all highlight the disjunction between what is learnt at the university site and the reality of teaching. This disjunction leads many beginning teachers to question university constructed ideas and adopt ideas and practices from their school colleagues. The difficulties of transfer have been identified by Goodlad (1990) as a major reason why students often view the components of their campus-training program as theoretical and useless.
The structure of the ‘traditional’ practicum experience itself, has also been called into question. The practicum typically proceeds inside the classroom as if the rest of the school does not exist, thereby creating a narrow view of the work of teachers. Further, as Zeichner (1992) argues, traditional practicum models are structured in a manner that does not allow reflective practice to occur between the teacher and student teacher; student teacher placements are often random and ad hoc with little thought to providing a wide range of experiences. Zeichner (1992) cautions that a block practicum can also encourage a mono-cultural rather than a multicultural view of teaching. Because pre-service teachers are most often placed in schools in close proximity to their home, they are unable to benefit from learning experiences outside of their own socio-cultural upbringing. They therefore fail to engage with the multi-cultural communities they will often be expected to teach as beginning teachers.

Lack of contact between the school and university personnel further serves to reinforce the binary notion that school is practical and university is theoretical. The Ramsey report (2000) identified that this perceived gap between theory and practice results in student teachers not being able to make the necessary connections between what they have been learning at university and what they are engaged with at the school. Student teachers often feel pressured to adopt the philosophy of their cooperating teacher with no opportunity to engage in critical reflective practice. Hence the alternative views they may have learnt at university become meaningless and not viable. On returning from practicum many a student teacher reiterate a common teacher ‘mantra’ – ‘forget about what you have learnt at university, this is where it all happens’.

Despite the numerous problems with the university-based teacher education model, the time spent in schools is still highly valued by student teachers and teachers alike. As Yarrow (1992) reports, students in pre-service courses commonly regard the practicum as the most important part of their course. When teachers are asked what can be done to improve teacher education programs… ‘More time in schools’ is often endorsed. More time in schools is viewed by some as a positive move forward in teacher education and it is the basis for moves to developing school-based teacher education models. It is not clear however that attempts to locate the site of learning to be a teacher to the school setting, actually resolves the theory-practice divide fostered by the university-based model.

School-based teacher education programs

School-based teacher education (SBTE) programs are best defined as programs that situate the site of learning pre-dominantly in the school space, and more specifically in the classroom space. A number of SBTE models have been developed and implemented in a range of school/university partnerships. One such model experiencing a renaissance is the Internship program. Student teachers are placed with a ‘master’ teacher and spend an extended period of time (anywhere from 6 weeks to a semester) in the classroom. This is not unlike an extended practicum with students spending up to an entire semester in the classroom space. ‘Micro-teaching’ programs by contrast, place student teachers in small groups within the classroom to test out lessons or activities they have prepared for the children and then to reflect on the
learning outcomes and teaching that occurred. These sessions are generally short in length and narrow in their content focus.

The internship model, and to a lesser extent the micro-teaching model, embrace a view that certain aspects of teacher routines, for example, managing group activities, changing tact when pupils’ interest or attention is flagging and creating a relaxed and enjoyable but nevertheless disciplined atmosphere in the class (Brown and McIntyre as cited in Hanson, 2001) can only be learned through practical teaching experience. The micro-teaching model encourages a view of teachers’ work that encourages particular concepts to be taught in isolation. Both of these models, while having merit, narrow the work of a teacher to the classroom and the delivery of lessons.

Just as university-based teacher education programs have been criticised as being too removed from school practice, so too have school-based teacher education models been critiqued for their insularity, lack of critical reflection and provision of opportunities to engage in meaningful educational debate. One of the main problems identified by Connelly and Clandinin (1994) as cited in Grundy, Robinson and Tomazos, (2001) is that the shift towards SBTE models often reinforces the separate nature of the school and the university culture. As in the traditional university-based model, the university is still framed as the place of knowledge and the school as the place of action. A further difficulty in locating the site for learning about teaching in schools is the dominance of the school culture and the resulting inability of student teachers to challenge established practices, beliefs and rituals. Hargreaves (1997, p. 106) argues somewhat provocatively, that the main aim of school-based teacher preparation is:

> Not to enrich collaboration and collegiality but to return teaching to an amateur, de-professionalised almost pre-modern craft, where existing skills and knowledge are passed on practically from expert to novice, but where practice can at best only be reproduced, rather than improved.

In a SBTE research study, Hodkinson and Hodkinson (1999, p. 284) found evidence of student teachers being pressured to adopt dominant school routines and beliefs without the opportunity to reflect and question them. The teachers in the study were shown to criticise the student teachers if they were not seen to be physically participating in classroom activities. What the study highlighted was the difficulties SBTE programs have in providing opportunities for student teachers and teachers to reflect together, rather than the fact that teachers do not engage in reflective practice at all.

Both university-based models and school-based models offer a particular view of teacher education. In the former, the view is that a teacher must be equipped with the theoretical knowledge before testing their ideas in practice; in the latter, the view is that a teacher must first gain professional knowledge in order to guide their day-to-day actions in the classroom and to reflect on them. What both models fail to embrace is the notion that the work of a teacher occurs in a multitude of spaces and that these spaces are interconnected in complex social and cultural ways.
Maxwell and Ninnes (2000, p. 7) describe schools as sites that are intricately linked with society in all its aspects. School sites are thus microcosms of the broader political, economic and social forces. They do not exist in a vacuum but rather mirror the different beliefs and values of the community. To best prepare our teachers, we thus must examine and allow students to experience the many aspects of the school and its community and the varying ‘spaces’ in which teachers negotiate who they are and what they do. A multiple-space model of teacher education, I believe, does not reinstate the practice-theory divide but rather provides these kinds of opportunities to learn about the negotiated spaces of teachers’ work.

A ‘multiple-space’ model of teacher education

A ‘multiple-space’ model considers the many spaces in which teachers work and engage in: multiple classrooms, staffrooms, playgrounds, with parents and with members of the school community. Their work, in turn, is shaped by these spaces. If we acknowledge that these spaces are crucial teaching and learning spaces, rather than added extras, then our teacher education programs must also provide opportunities for student engagement in these spaces. For example, student teachers need multiple opportunities to work with and learn from parents from different socio-cultural backgrounds; to speak to parents about educational issues, to work alongside parents in community based projects, to understand and work with the complex needs of parents from different socio-cultural backgrounds. These experiences, I argue, should not be ‘additional’ experiences or voluntary experiences, but experiences that are as highly valued and as structured as those of learning about curriculum and behaviour management in a classroom setting.

The Teaching Learning Consortium (TLC), developed at the Australian Catholic University Strathfield campus, Sydney, developed such an alternative model of teacher education in 1997 endeavouring to situate learning to be a teacher in a multitude of spaces: playground spaces, classroom spaces, community spaces, professional learning spaces, university spaces. Groups of student teachers were assigned as a small team to the whole school, rather than to any one teacher and their university studies allowed for both school-based and university-based discussions and readings at both sites, with university lecturers themselves attached to a whole school (as opposed to the classroom) space. In a typical TLC day student teachers might be required to work with three different age levels and their respective teachers, attend an after-school meeting, engage in an after-school activity, talk to the special needs teacher after observing a parent conference, reflect on children’s behaviour on the playground at lunchtime and have a team meeting with their university colleague. My doctoral research documented the experiences of a particular cohort of student teachers involved in this TLC program during 1999 and examined the ways in which these students negotiated the variety of teaching spaces and learned about the work of a teacher. The research participants involved twelve student teachers working in teams of four, in three different school communities.

The TLC program involved students who were in their second year of a Bachelor of Education degree. In their first year they had experienced a pre-dominantly university-based teacher education program as outlined earlier in this paper. The
study’s main aim to understand what these student teachers learnt about teaching and being a teacher from the TLC experience. The methodology adopted a qualitative approach that used semi-structured interviews and written and oral questionnaires to compare the student teachers understandings before, during and after the TLC experience. Grounded theory (Strauss & Corbin, 1990) was adopted to examine the particular themes that emerged and narrative inquiry was used as a tool to unearth the discourse that dominated.

**Moving beyond the classroom**

Before the commencement of the TLC experience, students revealed an understanding of teaching that was predominately focused on classroom management and the technical skills of teaching. Particular phrases and words emerged that focused on the language of lesson preparation, classroom management, discipline, behavioural management and understandings of differences in children’s learning abilities. Below is an example of phrases used by the student teachers to describe their learning to be a teacher after their first year of teacher education. I have learnt:

- To plan, construct and carry out a lesson successfully (Amelia).
- The skill of conducting a lesson thoroughly (Jane).
- That organisation is an important skill to a successful lesson (Malika).
- That lessons don’t always go to plan (Malika).
- How to organise lesson plan effectively (Carolyn).
- The importance of good preparation to a lesson (John).
- Importance of explaining activities (John).
- The importance of good preparation (John).
- The skill of conducting a lesson thoroughly (Kate).
- That opening is important to a lesson but the closure is just as important (Sharon).
- That you need to be prepared in taking a lesson (Leah) (White, 2002, p.176).

These student teacher responses reflect a professional knowledge view of becoming a teacher, with a particular, narrow classroom focus. Note the repetition of the word ‘lesson’ and the concern with how the teacher to conducts lessons. At the conclusion of the TLC experience by contrast a different set of phrases replaced the technical and behaviour management language used before the TLC. Key words included the community, whole school, and co-operation. The following are examples of statements made:

- Teaching is based on a whole-school awareness (Amelia).
- Teaching is a whole community process (Rohan).
- You need to consider the elements of the whole school (Sophie).
- The school must work together in order to function. Ie the teachers, students and parents must co-operate together (Gretal).
- You benefit from liasoning with other staff (Sophie).
- You need to work as a team (William).
- Working as a team is important (Malika).
- Communication is an important aspect used to achieve personal required outcomes and goals (Gretal).
- You need to work with many teachers and bounce ideas around (William).

These show significant changes in language choices and signify a shift in understanding from the work of teachers being primarily with children, to the work of teachers as a part of a larger network.
The shift in understanding in the TLC program that occurred for these student teachers about the nature of teachers work were shaped by the opportunities they had to be involved in a multiplicity of ‘learning spaces’. They lived the daily experiences of staff meetings, planning sessions, after school parent interviews, sporting excursions and weekend school/community activities that teachers actually engage in. One of the students, in the final week of the TLC program described his learning about the work of a teacher in the following way:

I understand the role of the teacher as part of the community ie part of a team, sharing ideas, reporting ideas. As a teacher you are apart of the wider community ie being involved in the clean up of the school area with the children and families. I am more confident in spending time with the school and being with the kids (John, week 12, written questionnaire).

John (not participant’s real name) attended all the staff meetings and wanted to be a part of the extra curricular activities of the school. John talked of his own understanding of the ‘changing nature of teaching’.

You always have to be ready, to be flexible, time is always taken up with other things, sports carnivals, staff meetings, interruptions, these are a part of working in a community and you need to be involved in all the wider aspects of what a teacher does (John, week 19, individual conversation).

John’s view of teaching changed over the program to encompass an understanding of the multi-faceted role teachers’ play within the community and of how teachers’ responsibility extended to the community as a whole. John was able to come to this understanding through the opportunities afforded him in whole school participation as well as his own enthusiasm to be a part of the school. In working alongside parents in the school working bee he was able to witness teachers’ and parents’ as well as interested community members’ involvement.

The importance of these spaces are often forgotten by both teacher educators and teachers who seem to structure experiences for learning solely around the classroom. As Darling-Hammond (1998, p. 2) states:

Teachere learn best by studying, doing and reflecting; by collaborating with other teachers; by looking closely at students and their work; and by sharing what they see.

The lens through which student teachers, teachers and teacher educators ‘study, do and reflect’ must be broadened to the lives beyond the classroom walls. While the TLC model seemed to provide opportunities for student teachers to engage in a variety of spaces, it did not, however necessarily support the student teachers to learn to be a teacher in multiple spaces. The story of Rohan illustrates how one student struggled to comprehend the competing forces shaping what teachers do and how we, as teacher educators might do further work in providing alternative models of teacher education.
**Rohan’s story**

When Rohan entered the TLC program he seemed to have a far more idealistic notion of the teaching profession than any of the other participants in the study. He was also unique in that he had attended another university, for his first year of teacher education and this year had not included any form of practicum experience. Rohan wrote in his first written questionnaire that he saw a teacher as:

A person to whom a child’s education is given to them as a privilege by the child’s parents. A teacher is not the sole teacher of a child, but someone who helps facilitate what the child learns from the world around them. Not only is a teacher responsible for the child’s learning but they have a duty of care to look after the child’s general and school welfare in the absence of the parents.

In week seven of the TLC program, however, he wrote:

A teacher in today’s society is someone who has been given the responsibility of teaching children in a way that is suitable for them to fit comfortably into today’s society. The role of the teacher is tending to become more of a facilitator as opposed to a teacher as such.

And in week twelve of the TLC program he wrote:

A teacher’s role is a complex mix of responsibilities, timetables, politics and enjoyment. A teacher is responsible for their children (duty of care), their programming and their general professional awareness. Unbeknownst to many, politics in the school environment plays a large role and is essential to a teacher’s work.

What Rohan was beginning to grapple with was the complex roles and responsibilities of teaching as a profession and yet he was left unequipped and unsupported to deal with many of these issues. Rohan’s growing dissatisfaction with teaching as his chosen career resulted in his decision to leave the course at the end of the TLC experience. Although some may see this as a positive outcome of the program, another way of viewing his departure is to consider it a failure of an innovative teacher program that opened up the different spaces teachers work in, but did not also foster the skills with which to negotiate in these spaces.

**Conclusion**

This paper has contrasted two models of teacher education: university-based and school-based and the respective debates around their capacity to prepare prospective teachers for the 21st century. Neither model is without its critics; both fail to fit teacher preparation to the reality of teachers’ lives today. A third model is recommended, that of a multiple-space model. I believe this model begins to engage student teachers in the many forgotten spaces in which teachers work and learn. This model is, however, in its early days. More work is needed to provide support for student teachers as they grapple with each space and how they can build upon their theoretical and professional knowledge, skills and understandings. It is my belief that teachers, student teachers and teacher educators need to first acknowledge the value of these forgotten spaces in teacher education and then we might collectively begin to restructure a new teacher education model.
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Learning to learn: An investigation into the way student teachers transfer their own learning to help children learn

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Research indicates that understanding how we learn has a significant impact on how we go about attempting to teach others (Dembo 2001). Teacher education programs can benefit from a better understanding of how student teachers learn and this information can enhance the ways that student teachers design and evaluate the programs of learning they develop for children. This paper will present preliminary findings concerning the basic beliefs about teaching and learning held by preservice teachers. Their beliefs about learning are discussed in the light of their preparation to conduct lessons with young children participating in an annual interpretive project at the Albury Regional Art Gallery.

A number of authors have raised concerns about how beliefs about teaching and learning affect the development of professional practice (Bramald, Hardman & Leat, 1995; Flowerday & Shraw, 2000; Joram & Gabriele, 1998). These authors argue that beliefs about learning define the way that teachers structure learning tasks and whether they use effective or less effective strategies with children. Other authors (Cook, Smagorinsky, Fry, Konopak & Moore, 2002; Gerges, 2001) have studied the effects of teacher belief and found that these are powerfully influenced by the constraints of context. In some cases, for example, even though student teachers know better methods of teaching they choose to adopt less effective methods due to the influence of supervising teachers (Tang, 2003) or the perceived characteristics of the teaching context (e.g., using more teacher controlled methods with less able children).

A major concern of professional training programs is the need to develop skills and attitudes in student teachers that encourage reflection and analysis of practice (Chambers, 1999; Platzer et al., 2000). Such skills help move the developing practice of student teachers beyond the level of uncritical emulation and simple replication of observed teaching. The adoption of more reflective approaches to teaching encourages pedagogical behaviour that is focussed more directly on learner need and the nexus between teaching practice and student learning (Shulman, 1998). Importantly, a reflective approach to practice encourages the student teacher to examine their ideas about learning and critically assess their approach to teaching as they begin to understand more about how individuals learn (or fail to learn) as a result of their attempts to teach (Van Zee & Roberts, 2001).

An important consideration in any attempt to develop the professional practice of student teachers is the prior knowledge and beliefs they hold about teaching and learning. Such beliefs are likely to influence, if not, define how student teachers
attempt to teach children. Since existing beliefs may be difficult to modify (Pajares, 1992), and dysfunctional (or even mistaken) beliefs can lead to unprofessional practice and poor learner outcomes it is imperative that teacher education programs examine these basic beliefs that are central to the professional activity of student teachers. Knowing more about student beliefs can help us design more responsive programs in teacher education and ensure that graduates’ knowledge of pedagogy reflects current best practice rather than misconceptions about the process of teaching and learning.

One way that teacher education programs can gain an insight into the beliefs about learning and teaching held by students, is to observe them engaged in the act of planning and teaching in typical workplace environments. Opportunities for observing students participate in activities where they are planning for, and teaching young children typically occur during the professional experience (teaching practicum). Other opportunities for students to explore their understandings of teaching and learning are available throughout most subjects in teacher education courses, such as brief field experiences, community projects, field projects and other activities attached to research projects managed by academic staff in educational centres. A typical example of this kind of opportunity can be found in the Children’s Week project used for this study.

Background

*Children’s Week at the Museum* has been in existence for nearly a decade as a collaborative project between the Albury Regional Museum, Charles Sturt University Bachelor of Education (Early Childhood) students, and local schools in Albury-Wodonga. The idea began on the Wagga Wagga campus of CSU where Primary and Early Childhood Education students assisted in implementing an educational program at the local Art Gallery as part of their learning in Arts-based curriculum subjects.

The Museum Project in Albury initially involved students from the Bachelor of Education (Early Childhood) in the 3rd year of the course. At this point in their studies, the student teachers had completed three professional experience placements and students generally felt confident planning for, and working with, children 0-8 years of age.

The student teachers engaged in the project were asked to plan a specially prepared education program so that visiting children could become engaged in the exhibited material in the museum. Over the course of one week school groups would visit the museum and would participate in a range of educational experiences built around the exhibit theme. The participating school children were typically excited and delighted by what they found at the museum and the student teachers’ learning activities would facilitate the children’s discoveries in this learning environment.

In 2004 the project was transferred to the Albury Regional Art Gallery during renovations at the Albury Museum. The student teacher involvement has grown to include first year BEd students from the new Middle School K-12 course. These new
students provided the researchers with the added opportunity to explore initial ideas and beliefs about learning with a sample from this new cohort.

The study

The researchers were interested in exploring the relationship between students’ prior knowledge and beliefs about learning and their approach to authentic teaching tasks undertaken during their coursework in a teacher preparation program. In order to do this a small pilot project was planned for the beginning of 2004 using the teaching and learning exercises implicit in the Art Gallery Project previously described. The intent of this pilot study is to attempt to identify and describe the basic beliefs about learning that students held at either entry to the teacher training program, or at the commencement of the 3rd year of the program. The pilot study reported here provides an insight into the existing beliefs about learning that students held at these times. Further interviews were planned to allow an understanding of how those beliefs might be modified through the experience of being actively engaged in authentic teaching and learning activities. The authors intend to report on the data from the second stage of the study later this year.

The sample for the study was sought through an open invitation to all students enrolled in the subject EMA301 Arts in the Primary School. Following responses from interested students a list of interviewees was developed, individuals were contacted and introduced to the research idea and the participants’ responsibilities. Students who were still interested in participating were then scheduled to meet with the researchers and participated in interviews that lasted approximately 30 minutes. Participants were interviewed using a semi-structured interview procedure. The guiding questions were:

• Please describe the activities will you be using during the Art Gallery project.
• Why have you decided on these activities?
• How do you learn best?
• Which types of activities help you learn? Which don’t?

These questions were supplemented by other questions and probes designed to allow the participants the opportunity to elaborate on their own individual experience and views. Such elaborations proved to be important to the researchers in understanding the deeper personal and philosophical basis upon which participants based their views on teaching and learning.

The audio-taped interviews were transcribed and reviewed by both authors separately and conjointly. Emerging themes were noted and discussed by the authors in the light of previous research on the topic. This analysis of the data allowed the authors to identify some commonly held positions on learning and designing learning experiences. In addition, the authors were able to identify some apparent contradictions in the participants’ views on learning and what constitutes good teaching.

The following section outlines the findings to date in this study. We would like to caution the reader that these are preliminary findings and represent only a first stage in the research. The findings presented here reflect the views of only a small, self-
selected sample and one should be cautious in attributing more validity and
generalisability to them than such a sample size would warrant. Nevertheless, the
views and beliefs represented here are consistent with findings in other more
extensive reports (e.g., Pajares, 1992) and focussed accounts (Dembo, 2001) of
student teachers’ understanding of and beliefs about teaching and learning.

**Preliminary findings**

*What do students say about learning?*

Participants revealed they had a preference for what they termed ‘hands on’, ‘visual’,
and demonstration styles of teaching. Although there were differences in the degree to
which participants had considered how they learn, they all subscribed to a view that
practical, personalised instruction methods were the most effective and justifiable
methods for teaching. For example, one of the students said that he learned best
through visual processes: ‘I like to see things visually. Anything visual I usually pick
up straight away.’ This student went on to talk about how he learned a great deal
about European history and architecture from his travels in Europe and this
knowledge was gained principally through first-hand observation.

Another student talked about how he learned to assemble factory items in previous
employment:

…I’ve had factory jobs where I just go in there and they will say “well you’ve got to do
this with that, do this, do that”, and show me once and I’ve already learnt it.

This student’s testimony was similar to others who claimed that teaching like this was
not only effective but also a preferred learning style for them.

Some students said that it was much more difficult for them to learn using approaches
which relied on verbal (either spoken or written) approaches such as books, lectures,
and the internet. While not all students indicated a dislike for verbal approaches to
learning they all indicated that this was a more taxing method of approach for learning
generally. There was even some indication that verbal methods of information transfer
impeded their participation in, and motivation to, learn.

…I find it difficult [when you have a] lecturer up the front and they’re just talking…I
find it very difficult to catch [what’s] important and I'll start writing it down and [then] I
completely forget what I was supposed to be writing…

…I’m not a natural note-taker and can’t sort of hear things and interpret them in my own
words and put notes down [on a] page during a lecture. That’s probably the place where I
find it most difficult to take in knowledge, and [I’m] also the type of person who’s not
listening to what’s being said, [because at the same time] I’m thinking about what I’m
going to say next, and that’s the barrier.

These two examples highlight the difficulties that some students face in attempting to
learn in typical mass teaching situations. There is an implicit assumption in other parts
of the evidence of these two students that information delivered through lecture, or
even dialogue, is somehow flawed. This reveals a lack of recognition that others, in
fact, do learn readily through such teaching approaches, and that their personal
difficulties might indicate a lack of skill or mastery of verbal approaches in learning rather than a flaw in verbal learning processes. Interestingly, some students indicated a preference for verbal approaches. While acknowledging verbal approaches (e.g., lectures, reading) do have their challenges, some of the participants felt very comfortable with approaches that relied on written tasks or verbal presentations:

...having an interview, speech that type of thing, no problems. I’m happy with doing that... if you know the information and what you are supposed to be reporting on then you’re comfortable. I find that reading and doing all the research to that, I’m fine with, because I’ve got it there in front of me ...

Moreover, some students indicated that verbal presentations were not really problematic provided that certain supports were available to assist them in learning. For example, one student said:

I like to be able to have in a lecture situation, what is being said and what I’m reading developed in some other aspect...I tend to retain more knowledge from that sort of... learning

Students such as this one show that the more abstract teaching methods, which are typical in University teaching environments, can be made more accessible if appropriate support and structure is provided.

When students talked about how they would plan and structure learning experiences for children in the Art Gallery Project, it was surprising to note how frequently they said they would use verbal strategies – the very strategies they had previously indicated were the least effective for their own learning. For example, in response to the question, ‘Please describe the activities you will be using during the Art Gallery Project’, one of the participants outlined the plan of a lesson that was predominantly teacher-led enquiry and discussion. Clearly this approach, which was distinctly verbal, was at odds with most students’ claims about how they themselves learn best.

One thing all students agreed on was the need to structure learning experiences so that the learner was adequately prepared for learning about the content of the learning experience. For example, the students all said that early in their lesson they would develop children’s understandings of key ideas that would be covered in the body of the lesson. One student, for instance, in a lesson on Aboriginal art, claimed that she would introduce children to examples of artwork, techniques associated with its production, and terminology associated with production and appreciation of the artwork. This would precede a practical element in the lesson where children would engage in production of their own ‘indigenous-inspired’ artwork. Other students made reference to the need to relate proposed learning to prior learning, or to use cognitive aids such as mnemonics to help with organising and working with new knowledge and ideas.

Students also spoke of the need for material they were learning to be personally interesting and presented in a way that encouraged discussion and personal engagement. The descriptions of the lessons they planned for the Art Gallery Project reflected this view. All the students made a point of focussing their lessons on
children’s practical exploration of materials, in ways that reflected the children’s own interests and understandings of the exhibition content.

**What effect do undergraduate teacher education programs have on student’s understandings about teaching and learning?**

Some of the students, particularly the 3rd year students, felt that they had developed their understandings about teaching and learning, and young children, as a result of their participation in their undergraduate studies. Some students felt that the course had fundamentally altered their ideas about young children and how they learn. Others felt that the teacher education program had reinforced existing ideas based on their experience of being parents.

Jenni: I wonder how many of these ideas, about learning, you might attribute to the last couple of years of your learning here?

Interviewee 1: Heaps… I have learnt a lot since I have been here, I really have…

Interviewee 2: Most definitely… Even with parenting and raising children, doing this course has given me so much more knowledge and it’s helped me learn and understand appropriate practices…

While it is clear that some students felt that the experience of an undergraduate teacher education program had changed their understandings about children and learning, it is important to be able to identify the evidence for this view. Clearer evidence concerning the development of students’ understandings about children and learning will be available following the analysis of 2nd stage data. Nevertheless, the stage 1 data does provide an insight into the difference in development that appeared to accrue due to time involved in their teacher education studies.

Analysis of the stage 1 data in response to the question concerning what activities the students planned to provide children in the Art Gallery Project revealed distinct differences between students who were in the 1st year of the course and those who were in the 3rd year of the course. The suggestions for content and delivery of lessons were weaker amongst the newer students. Moreover, the 3rd year students displayed better understandings of the anticipated ability of children in the primary years of school and provided superior descriptions of the lesson process. These effects were even more striking in that even the less academically able 3rd year students demonstrated much higher skills in each of these areas than academically strong and life-experienced 1st year students.

**In summary**

The results of this part of the study indicate that students hold beliefs about teaching and learning that largely reflect their own experiences as students. Students felt that ‘hands on’ demonstration-styled learning worked for them and the lessons they propose to do at the Art Gallery reflect that approach. There are some inconsistencies emerging in terms of the students’ theorising about teaching and learning and their plans for practical action. They are, for instance, somewhat dismissive of the idea that learning can occur when teachers use verbal methods to convey ideas, concepts or experiences, but they commonly cite verbal methods as a standard component in their own teaching plans.
It is understandable that students might oversimplify the attributes of quality professional practice. They are, after all, necessarily naïve to much of the complexity inherent in the professional activity of experienced teachers. What is hoped, however, is that through increasing contact with the field and through participation in authentic teaching tasks that student teachers will come to clarify and rationalise their beliefs about teaching and learning.

**Concluding remarks**

This research has the potential to transform the development of student teachers’ understandings of teaching and learning as it applies to their role as educators of young children. These preliminary findings indicate that the students who participated in this study hold beliefs about learning that are drawn from both their previous experiences as learners in school settings, as well as their current experiences in attempting to plan learning experiences and teach children. Some of the participants’ notions about learning indicate a transition from naïve views about the role of teachers and learners to more mature and complex views. This transition contributes in some cases to a dialectic that hopefully will result in a more rational and considered approach to teaching and learning.

Stage 2 of the study will take place in the second half of 2004 and includes comparing the plans for teaching and learning and the preservice teacher’s beliefs about children’s learning with an appraisal of what the preservice teachers actually did during the Art Gallery Project. During the Art Gallery Project the researchers will observe each participant who has agreed to be part of the study. These observations are designed to help the researchers examine more closely the links between students’ stated attitudes and beliefs about teaching and learning and their practice. Also, as a result of normal assessment in the subject, each student is required to develop a portfolio of their participation in the project and these will be reviewed by the researchers to gain further insight into the planning and evaluation of learning experiences used by these students. The portfolios also provide an opportunity for the researchers to examine how students reflect on, and revise, their teaching strategies during the week of the Art Gallery project.

Participants will then be interviewed again to discuss their rationale for how they selected their activity, their views about teaching young children, and how the experience of the Art Gallery Project has informed their attitudes and beliefs about young children’s learning. Insights gained from an examination of the portfolios and interview transcripts will be the subject of future publication. It is the researchers’ expectation that exploring the intricacies of student beliefs about learning and how this changes as students complete their undergraduate training will allow us to reflect more wisely on the process of educating new members of the profession.
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Pedagogy, andragogy and teleogogy

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The term pedagogy is commonly used to refer to our teaching methods and derives from two ancient Greek words, pais (“youth” or “lad”) and ago (“lead” or “drive”). As such, the etymology of pedagogy has within its range of meanings a core sense of guiding young people. Many adult educators use the term andragogy to describe learning for adults. The current authors propose a new term that avoids the sexism of andragogy and expresses more deeply what it is that we do as adult educators. Our proposal is the novel word teleogogy. A simple translation of telos is “end”. This Greek word commonly had the connotation of “conclusion” or “termination”. However, in philosophical and religious writing it also had a wide range of senses including “outcome”, “result”, “goal”, “aim” or “fulfilment”. This paper will explore the application of teleogogy to the practice of university teaching and learning.

The terminology used by educators to describe their role influences educational practice. It is important that terminology is used consciously to capture educational philosophy. Meanings can shift over time, and it is important to revisit commonly used terminology to determine whether it accurately captures the definitions we intend when words are used. C. S. Lewis eloquently described the “dangerous sense” of word usage. He stated:

The dominant sense of any word lies uppermost in our minds. Whenever we meet the word, our natural impulse will be to give it that sense. When this operation results in nonsense, of course, we see our mistake and try over again. But if it makes tolerable sense our tendency is to go merrily along. We are often deceived. In an old author the word may mean something different. I call such senses dangerous senses because they lure us into misreadings. (Lewis, 1967; p. 13).

Within this paper the authors aim to revisit the origins and usage of terminology commonly used to describe the practice of educators and to offer a new term that may be more appropriate for what educators do in the new millennium.

Pedagogy

The well-known term pedagogy refers to the science of teaching and learning, especially in the sense that we are reflectively conscious of our teaching methods. Pedagogy derives from two ancient Greek words, pais (“youth” or “lad”) and ago (“lead” or “drive”). The combining form of pais was paido. As such, the etymology of pedagogy has within its range of meanings a core sense of guiding (or driving!) young people.
Pedagogy is a centrally significant term used within the teacher education literature to describe teaching and learning for children and copious examples exist. One recent example is the area of productive pedagogies has been heralded as the way forward for teachers and students within Australian schools (Lingard et al., 2001). Moss and Petrie (2001) provide a helpful analysis of the use of the words pedagogy and pedagogue in English-speaking and European countries. They indicate that within continental Europe, “…pedagogy can be used to refer to the whole domain of social responsibility for children, for their well-being, learning and competence. It can encompass many types of provision such as childcare, youth work, family support, youth justice services, residential care, play work and study support – provision that, to our English eyes, appears somewhat disparate.” (p. 138).

The term pedagogy is sometimes also used to refer to the education of adults (e.g., Degener, 2001). However, the current authors suggest that the use of the term pedagogy for both children and adult learners may result in a lack of differentiation (whether conscious or unconscious) between the educational practices used for each group. Indeed, differentiation between the two groups can facilitate a developmental approach to supporting the transition of students from a more pedagogical framework at school to a more andragogical approach at university. For example, McLeod et al. (1999) presented the continuum approach used to facilitate the transition from school to university learning in a paper titled: From saplings to trees: Nurturing the transition from pedagogy to andragogy during the first year at university.

Another reason for reconsidering the use of pedagogy to describe teaching and learning for university students is that it does not reflect with the common usage of the term (cf. Lewis, 1967). The Concise Macquarie Dictionary (1982) defines pedagogue and pedagogy as:

| pedagogue | /ˈpɛdæɡəʊ/ | n. 1. a teacher of children; a school teacher. 2. a person who is pedantic, dogmatic, and formal. |
| pedagogy | /ˈpɛdæɡədʒi/ | n. 1. the function, work, or art of a teacher; teaching. 2. instruction. |

From these definitions, the formality of “instruction”, the denoted audience “children”, and even the negative connotations of “pedantic, dogmatic, and formal” do not accurately reflect the practice of university educators, or most educators within society today. Therefore, partly out of an awareness that the term pedagogy is linguistically inappropriate to use regarding adults, partly out of a sense that adult education has fundamental distinctions from school education, many adult educators use the term, andragogy.

Andragogy

The term andragogy was introduced into the English language by Malcolm Knowles in 1968 in a paper titled “Androgogy (sic), not Pedagogy” (cited in Knowles, 1990). Knowles used the term to differentiate a theory of adult learning from the theory of youth learning (pedagogy) (Knowles, 1970). The term andragogy was first reported to have been used in 1833 to describe the educational theory of Plato by Alexander
Kapp, a German grammar teacher. The history of the usage of the term *andragogy* within Europe, and then within the English language is traced by Knowles (1990, pp. 51-53), with recognition of its official usage being recorded in the 1981 edition of the Webster’s 3rd New International Dictionary.

Knowles (1970; 1980; 1990) defined *andragogy* as the art and science of helping adults learn. There are several key assumptions about the characteristics of adult learners upon which Knowles bases his model of *andragogy*. These assumptions have been described by Knowles (1990, p. 31):

1. Adults are motivated to learn as they experience needs and interests that learning will satisfy; therefore these are appropriate starting points for organizing adult learning activities.
2. Adults’ orientation to learning is life-centred; therefore, the appropriate units for organizing adult learning are life situations, not subjects.
3. Experience is the richest resource for adults’ learning; therefore, the core methodology of adult education is the analysis of experience.
4. Adults have a deep need to be self-directing; therefore, the role of the teacher is to engage in a process of mutual inquiry with them rather than to transmit his or her knowledge to them and then evaluate their conformity to it.
5. Individual differences among people increase with age; therefore, adult education must make optimal provision for differences in style, time, place and pace of learning.

Subsequent investigators have refined Knowles’ original concepts; however, there tends to be general agreement of the characteristics of adult learners. The two characteristics of adult learning most frequently reported in the literature on adult learning are: autonomy in the learning programme and the use of one’s life experience as a learning resource (Brookfield, 1986). Brookfield (1986) summarises the principles of adult learning, as follows:

Adults learn throughout their lives, with the negotiations of the transitional stages in the life-span being the immediate causes and motives for much of this learning. They exhibit diverse learning styles - strategies for coding information, cognitive procedures, mental sets - and learn in different ways, at different times, for different purposes. As a rule, however, they like their learning activities to be problem centred and to be meaningful to their life situation, and they want the learning outcomes to have immediacy of application. The past experiences of adults affect their current learning, sometimes serving as an enhancement, sometimes as a hindrance. Effective learning is also linked to the adult’s subscription to a self-concept of himself or herself as a learner. Finally, adults exhibit a tendency toward self-directedness in their learning (p. 31).

An overview of the application of the principles of adult learning theory to fieldwork/practicum education is expounded by McAllister (1997). In a practical application of *andragogy* to university classroom teaching, Toms (2001) paraphrases the work of Laird (1985) and suggests that *andragogy* “recognizes the maturity of the learner… and is:

- problem-centred rather than content-centred
- permits and encourages active participation
- encourages past experiences
- is collaborative between instructor-student and student-student
- is based on planning between the teacher and the learner
Today the term *andragogy* is used to refer broadly to an approach to teaching and learning for any age group, which is student centred and which fosters learner autonomy. This is in contrast to traditional notions of *pedagogy*, which was initially used to refer to the didactic teaching of children. Returning to the example of nurturing the transition from *pedagogy* to *andragogy* (McLeod et al., 1999), the team consciously assisted students to progress from a dependant pedagogical framework of teaching and learning to be able to utilise processes which are congruent with adult learning (autonomy, self-directedness, interdependence and peer learning) (Kolb, 1980). It is interesting to note that the term *andragogy* has not been included in much of the teacher education literature. For example, there is no mention of the term *andragogy* in the Dictionary of Education http://dictionary.soe.umich.edu/plus/. An exception is the work of Terehoff (2002), who describes the use of the concept and philosophy of *andragogy* by school principals for creating an environment for adult learning and engaging school staff in “mutual planning, design, implementation, and evaluation” in school-based teacher professional development.

A need to look beyond the term *andragogy* has been voiced in the literature on adult learning for some time. Some have felt that the teacher-learner relationship is better expressed using more self-explanatory terms such as *self-directed* and *teacher-directed* (Rachal, 1983). Rachal (2002) suggests that *andragogy* is affected by definitional confusion. He proposed seven criteria for a revised definition: “voluntary participation, adult status, collaboratively determined objectives, performance-based assessment, measurement of satisfaction, appropriate adult learning environment, and technical issues”. Others have suggested that adult learning goes beyond the teacher-learner relationship, and propose that new terminology is required. For example, within Australia’s vocational education and training (VET) sector the term *heutagogy* has been suggested to encapsulate an approach of self-determined learning, where learners themselves determine what and how learning should occur (Kenyon & Hase, 2001).

While *andragogy* was intended to denote adult education as distinct from child and youth education, it is linguistically compromised. The term is again derived from two Greek words, *ago*, as already discussed, and *aner* (“man”) which has its combining form *andro*. The sense is properly “man” as distinct from “woman” (Greek *gune*) (Bauer, Gingrich & Danker, 1979; Liddell & Scott, 1996). Thus in medicine “andrology” is the study of men’s health, “gynaecology” the study of women’s health; “androgyny” refers to having both male and female characteristics (*andro* combined with *gune*). Further consideration of the common usage of this prefix can be found in the Concise Macquarie Dictionary (1982) that defines *andro*:

*andro*, a word element meaning ‘man’, ‘male’, as contrasted with ‘female’ as in *androsphinx*. Also *andr-*. 

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- is based on an evaluation agreement
- prompts redesign and new learning activities based on evaluation
- incorporates experiential activities.” (p. 2)
Therefore, from both linguistic considerations and the need for inclusiveness, the term *andragogy* could be replaced with a different term.

**Teleogogy**

The current authors wish to propose a new term that avoids the sexism of *andragogy* and helps us to express more deeply what it is that adult educators do. Our proposal is the novel word *teleogogy*. The key Greek term which undergirds this is *telos*. A simple translation of *telos* is “end”. The Greek word commonly had the connotation of “conclusion” or “termination”. However, in philosophical and religious writing it also had a wide range of senses including “outcome”, “result”, “goal”, “aim” or “fulfilment” (Bauer, Gingrich & Danker, 1979; Liddell & Scott, 1996). The verbal forms *teleo* and *teleioo* were used for meanings such as “make perfect or complete” (Bauer, Gingrich & Danker, 1979; Liddell & Scott, 1996). The adjectival form *teletios* can be rendered in English by “perfect” or “mature” (Bauer, Gingrich & Danker, 1979; Liddell & Scott, 1996). In the classical Greek period the *telos* or “end” was considered as the most foundational cause of what happens. Thus Aristotle spoke of the tree within the acorn as its ultimate cause for growth, or health as the ultimate cause of someone walking (Barnes, 1982). In Christian thinking of late antiquity, the *telos* was the perfection of the individual to which humans move, but never fully attain in this life, or the fulfilment of all things towards which the universe is drawn (Armstrong, 1970). *Teleogogy* in adult education would therefore not have a sense of “conclusion” as much as being led or drawn to an end, understood as lifelong growth towards full maturity. This deeper sense of *telos* or “end” is sometimes used in this sense in English. People speak of “the ends justifying the means” or “the means to an end”; one might ask someone “To what end are you doing this?” Thus, in English, “end” is already understandable as “purpose” or “goal”. Therefore, from both linguistic considerations and the need for inclusiveness, the term *andragogy* could be replaced by *teleogogy*.

Further consideration of the common usage of the prefix *tele* can be found in the Concise Macquarie Dictionary (1982) which defines *tele* and *teleology* thus:

| tele- | 1. a word element meaning ‘distant’, esp. ‘transmission over a distance’ as in *telegraph*. Also *tel-*¹, *tele-¹*. 2. a word element referring to *television* or *telephone*. |
| tele- | 2. 1. a word element referring to the end as in *teleological*. Also *tel-*², *teleo-, telo-²*. |
| teleology | /’teliədʒi, teI-/, n. 1. the doctrine of final causes or purposes. 2. the belief that purpose and design are part of, or are apparent in, nature. 3. the doctrine in vitalism that phenomena are guided not only by mechanical forces but also by the ends towards which they move. – *teleological*, adj. – *teleologically*, adv. – *teleologist*, n. |

This first definition of the word element *tele-* provides yet another enticing layer of complexity to the use of the term *teleogogy* and is of particular interest to educators within universities such as Charles Sturt University. CSU is one of Australia’s largest distance education providers and approaches to education that embrace and explain the unique situation of learning at a distance is of interest. Gibbons and Wentworth
(2001) have suggested that a teacher-directed pedagogical approach to learning is not as beneficial as an approach that enables students to be self-directed when working online within distance education.

The etymology of teleogogy helps to enunciate the practice of adult education in a number of ways. Firstly, understanding telos as end in the sense of goal or endpoint helps to reflect that adult education is founded on the learning goals of the learner. Knowles (1990) described three types of learners: goal-oriented, activity-oriented and learning-oriented. These different goals or endpoints provide some insight into the breadth of endpoints learners can focus on. Nevertheless, despite their diversity, these “ends” are unified in being primarily those of the learner rather than the teacher. One example of this arises in the experience of teaching graduate coursework in religious studies. The student body of such programs typically includes practising teachers seeking enhanced qualifications in religious education, clergy engaged in continuing education, and retired professionals pursuing personal interests. The first two groups tend to be goal oriented, whereas the latter is more learning oriented. The education philosophy, which the current authors name as teleogogy, assists to identify and accommodate these diverse learning needs in practice.

Secondly, understanding telos as “end” in the sense of the full maturity towards which one moves throughout life helps to reflect that adult education is about life-long learning. Both pedagogy and andragogy are focused on particular times of life, especially pedagogy growing as it does from language related to childhood. In contrast, teleogogy connotes a sense that learning is something that should be striven for at all points in the human journey. This facilitates the practice of nurturing transitions through the continuum of learning contexts encountered in life, as already discussed. Further, when applied specifically to teacher education, the philosophy and practice of teleogogy will assist developing teachers to recognise the distinctiveness of child and adult learning, yet posit these on the one continuum of their own teaching and learning experience. More broadly in adult learning situations, such as the vocational sector, teleogogy enables the adult educator to name the task of creating the climate in which adult learners embrace learning in a range of ways rather than experiencing it as imposed for purely instrumental purposes, such as employment needs.

Finally, recognising that telos can also have a cosmic sense helps us to see that adult education is larger than the individual. The field of andragogy has been criticised for focusing on individual learners while ignoring sociohistorical context (Merriam, 2001). Consequently, while not strictly “cosmic”, the use of the term teleogogy can express the principles of organisational learning and collaboration. While it is desirable to avoid reducing adult education to instrumental purposes, as noted above, it is the case that much adult learning is situated contextually. Frequently, one learns as part of one’s participation in an organisation, which in turn is seeking to constantly improve its performance in relation to either competitors or its own vision (Senge, 1990/2003). From this perspective teleogogy assists the adult education practitioner to situate the learner’s goals within broader organisational goals. In relation to education for a particular profession, such as teacher training, the concept of teleogogy promotes the integration of the learner’s goals with those of the wider educational enterprise.
This helps resolve the tension between competency based and learner oriented models of education. Finally, recognition of learning as larger than the individual fosters a sense of collaboration more naturally than either pedagogy or andragogy. Thus teleogogy can be defined:

**teleogogy** /ˈtɛliəgɒdʒi/, n. 1. facilitating goal-oriented, life-long, collaborative learning considering the needs of organisations beyond the needs of just the individual learner.

Lougland and Reid (2003) argue that “just having a language is not enough. Establishing the protocols by which teachers can work as a community of practice is essential.” Consequently, the next step is to explore further the concrete application of this terminology to the practice of adult education.

**Concluding remarks**

The authors invite adult educators to speak of their work as teleogogy. This denotes a different practice of education from pedagogy, enabling adult educators to speak of a practice distinct from, yet in continuity with, the education of children. It is also different from andragogy in four ways. First, teleogogy is not gender specific. Secondly, it is not patriarchal. Thirdly, it accommodates the notion of distance learning in a positive way. Finally, and most significantly, teleogogy allows adult educators to speak of what they do as facilitating goal-oriented, life-long, collaborative and serving the needs of organisations beyond the needs of just the individual learner.

**Footnotes**

1 Curiously, in Greek the word *paidagogos*, from which pedagogy is derived, refered to a person who was not actually the teacher but the slave who accompanied pupils to and from school (Liddell & Scott, 1996). Other words commonly used in English which also derive from *pais* include paediatrics, orthopaedics (literally “square children”), paedophilia and pederasty.

2 In contemporary linguistic study of antiquity we refer to a word that was formed newly in its time as a “neologism” (*neos* “new” plus *logos* “word”). The practice of coining neologisms goes on, not least in the discourse of education.

3 “Teleology” specifically derives from Aristotle’s concepts. See Barnes (1982, pp. 73-77).

**References**


Teacher engagement in professional experience: Sustaining learning for student teachers

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Traditionally, student teachers have acquired the necessary knowledge and skills to become teachers through the acquisition of theoretical understandings at university and professional experience in a school setting. At the University of Western Sydney (UWS), Australia, over recent years the number of placements offered by secondary schools for student teacher professional experience has decreased. Diminished placements have been problematic as enrolment numbers have significantly increased in the secondary program and forecasts for future enrolments strongly project that this trend will continue. A study by Clarke (2002) was targeted at the Bachelor of Teaching (Secondary) Program at the University of Western Sydney. The study aimed to establish a number of key issues related to professional experience. This paper reports on the findings of responses elicited from questionnaires completed by the professional experience co-ordinators in schools where placements had been offered over a number of years. Future actions for increased placements are extrapolated from the findings to suggest strategies to increase professional experience placements in the secondary program.

Professional experience in schools has been used to provide on-site professional learning for student teachers. Opportunities in schools for student teachers to learn their craft in an authentic setting are provided through these experiences. Sinclair, Thistleon-Martin and Woodward (2000) have however, identified in their research a number of increasing pressures and tensions that have resulted in teachers choosing not to participate in professional experience in primary programs.

A similar study by Clarke (2002) was particularly targeted at the Bachelor of Teaching (Secondary) Program at the University of Western Sydney. The study aimed to establish a number of key issues related to professional experience including identifying:

• ways professional experience was promoted in secondary schools;
• how teachers indicated their interest at the school level to be part of the UWS secondary professional experience program;
• strategies used in schools to determine the suitability of teachers to perform the duties of a supervising teacher;
• factors that inhibited teachers from participating in professional experience;
• affirmation strategies used in schools to recognise the work of supervising teachers with student teachers and
• reasons why some schools and teachers were not involving themselves in the secondary professional experience program.
As schools and universities endeavour to increase their partnerships it is timely to question how these partnerships can be strengthened in order to sustain opportunities for both student teachers and teachers to continue to be involved in the professional learning of each other. There seems to be an incongruence between whose role it is to educate student/trainee teachers. Supervising teachers in schools play an invaluable role in influencing student teacher learning in the field. Careful consideration needs to be given to teacher selection and placement of student teachers with them. Blocker and Swetman, (1995); Veal and Rickard, (1998); Phillips, Baggett and McMinn, (2000); Kahan, (2002) have identified in their research selection criteria for supervising teachers. These criteria may be a useful starting point for further discussion with key stakeholders participating in the UWS secondary professional experience program.

Methodology

A total of 131 surveys were distributed to schools that had participated in the secondary professional experience programs conducted by the University of Western Sydney. Traditionally these schools had provided a large number of placements for student teachers in past years. Schools comprised NSW Department of Education, Catholic and Independent schools. The questionnaires were anonymous in that schools and participants were not asked to identify themselves. Fifty-eight (58) school professional experience co-ordinators participated in the study. A questionnaire that included six questions was posted to the School Professional Experience Co-ordinators. In order to maximise the return rate the questionnaire predominantly used multiple choice answers in order to minimise the time required for completion (Appendix 1). A descriptive approach was undertaken in analysing the statistics with frequency distributions and percentages of responses presented in six tables.

Analysis of data

Question 1: How do you promote professional experience to the teachers in your school?

In response to question 1 teachers indicated that professional experience was promoted to them through discussion at staff meetings, at faculty meetings and 18% of the respondents indicated “other” methods of promotion.

‘Other’ methods of promotion included the executive committee (faculty head teachers) nominating the teachers, the School Professional Experience Co-ordinator identified suitable teachers to supervise student teachers, announcements were made at staff development days, advertising of placement opportunities were placed on noticeboards, informal discussions were held in the common room during recess, lunch and after school and through the professional experience information letter sent to schools by the university.

The school development days were not frequently used to promote the professional experience of student teachers. It would seem that whole school discussion about professional experience could be initiated at school development days. Issues such as
participation in the program, the value of the program to both student teachers, teachers and schools, training of teachers as supervising teachers and developing mentoring skills would seem to be a starting point for dialogue to occur about professional experience. Utilising school development days as a discussion forum for professional experience would emphasise the value of professional experience as a pathway for student teacher/teacher development.

Table 1. How do you promote professional experience to the teachers in your school?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussed at staff meeting</td>
<td>19</td>
<td>32.8</td>
</tr>
<tr>
<td>Discussed at faculty meeting</td>
<td>20</td>
<td>34.5</td>
</tr>
<tr>
<td>Discussed at school development days</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>31.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Question 2: How do teachers indicate their interest to be involved in the professional experience program?

Approximately fifty five per cent of the teachers who responded to the questionnaire indicated that they showed their interest to act as a supervising teacher through discussions at faculty meetings. Nearly one quarter (24.1%) of the respondents chose the “other” category to explain how their interest was sought to act as a supervising teacher. Six (6) respondents nominated the school professional experience co-ordinator as personally identifying potential supervisors; five (5) respondents identified head teachers as the person who offered student teacher placements and three (3) respondents indicated a process where staff gained permission or expressed interest through the Principal, Deputy Principal to act as a supervising teacher.

Table 2. How do teachers indicate their interest to be involved in the professional experience program?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussed at staff meeting</td>
<td>4</td>
<td>6.9</td>
</tr>
<tr>
<td>Faculty discussion</td>
<td>31</td>
<td>53.4</td>
</tr>
<tr>
<td>Proforma sent to staff room</td>
<td>7</td>
<td>12.1</td>
</tr>
<tr>
<td>Proforma posted in general area such as common room</td>
<td>2</td>
<td>3.4</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>24.1</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Question 3: Who decides the suitability of a teacher to perform the duties of a supervising teacher?

The suitability of a teacher to act as a supervising teacher was largely determined by the Head Teacher (47 responses). Other staff such as the School Professional Experience Co-ordinator; teachers and Principals less often made the decision of suitability.
Table 3. Who decides the suitability of a teacher to perform the duties of a supervising teacher?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head Teacher decides suitability</td>
<td>47</td>
<td>81.0</td>
</tr>
<tr>
<td>Professional Experience Co-ordinator decides suitability</td>
<td>3</td>
<td>5.2</td>
</tr>
<tr>
<td>Teacher decides they are suitable role models</td>
<td>5</td>
<td>8.6</td>
</tr>
<tr>
<td>Principal decides suitability</td>
<td>3</td>
<td>5.2</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
</tr>
</tbody>
</table>

There is a heavy reliance on the Head Teacher, in determining the suitability of a teacher. The selection criteria for supervising teacher suitability needs to be firstly defined and this could be an area for further discussion with all stakeholders to determine appropriate selection criteria.

Question 4: Does your school have any processes to determine the suitability of teachers to act as supervising teachers?

Twenty point seven percent (20.7%) of respondents listed length of teaching experience as a determining factor in ascertaining teacher suitability and six point nine percent (6.9%) nominated the Head Teacher as supporting the teacher’s application as another aspect of school process.

Approximately one quarter of the respondents indicated “other” processes used to determine teacher suitability to act in the role of supervising teacher. These included respondents indicating that there was not a process to determine suitability; Principals, Deputy Principals and Head Teachers were identified as making the decision and the School Professional Experience Co-ordinator assessed a teacher’s suitability for the role based on their own knowledge of the teacher.

Table 4. Does your school have any processes to determine the suitability of teachers to act as supervising teachers?

<table>
<thead>
<tr>
<th>Response type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of teaching experience</td>
<td>12</td>
<td>20.7</td>
</tr>
<tr>
<td>Head Teacher supports teacher application</td>
<td>4</td>
<td>6.9</td>
</tr>
<tr>
<td>Head Teacher makes judgement</td>
<td>28</td>
<td>48.3</td>
</tr>
<tr>
<td>Others</td>
<td>14</td>
<td>24.1</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Question 5: Are there factors in your school that inhibit teachers participating in the University of Western Sydney’s secondary professional experience program?

There were two major factors identified in the analysis of these results that inhibit teachers participating in the UWS secondary professional experience program. Insufficient available time to actively support and nurture student teachers was identified as an inhibiting factor in decisions about student teacher placements. As well, too many universities requested student teacher placements. Thirteen point eight percent (13.8%) of respondents nominated teachers as not being interested in...
supervising a student teacher and not enough experienced teachers in the school was also seen as an inhibiting factor. A small percentage (3.4%) of respondents stated that there was a lack of school and/or faculty culture supporting student teachers. Only one respondent nominated inadequate payment factor as influencing teachers to participate in the UWS secondary professional experience program.

Teachers felt that too much was being asked of them with not nearly enough time to complete their core work of teaching children. The pressure of not enough time is impacting on teachers’ choices to contribute to the professional experience program of student teachers. Student teachers need face-to-face time with their supervising teacher. The extra tasks of increased administrative work were cited by teachers as increasing their workload and consequently they felt that they could not make a full commitment to the professional experience program for student teachers.

Schools also indicated that they have more demands being made by competing tertiary institutions, all of whom sought student placements with them. With increased placements required from many universities and with fewer teachers supporting the professional experience program, it must be questioned how the professional experience programs can be made sustainable.

A combination of “other” factors that inhibited teachers participating in the UWS secondary professional experience program were identified in the responses including teachers being overloaded with work, Head Teachers having inexperienced staff, not enough time to work with student teachers, lack of support from the university and previous negative experiences, timing in the school calendar as a problem which caused clashes with school examinations and assessments, some teachers and/or faculties were supportive and others were oppositional and lack of physical space to accommodate student teachers

### Table 5. Are there factors in your school that inhibit teachers participating in the UWS’s secondary professional experience program?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not enough time</td>
<td>19</td>
<td>32.8</td>
</tr>
<tr>
<td>Too many universities asking for placements</td>
<td>16</td>
<td>27.6</td>
</tr>
<tr>
<td>Teacher not interested</td>
<td>8</td>
<td>13.8</td>
</tr>
<tr>
<td>Teachers think they should be paid more for supporting student teachers</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>There is not a school/faculty culture of supporting student teachers</td>
<td>2</td>
<td>3.4</td>
</tr>
<tr>
<td>Not enough experienced teachers in school</td>
<td>4</td>
<td>6.9</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>13.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

**Question 6: How does your school affirm and recognise the work of supervising teachers?**

Schools affirmed and recognised the work of supervising teachers in predominantly two ways. The Principal and the Head Teacher were identified as the two key people
in the school who recognised and applauded the positive contribution made by supervising teachers. Only one (1) respondent nominated the Principal as recognising and applauding the contribution of the supervising teachers at Parents and Citizens meetings.

There were a large number of respondents who nominated the “other” category in this question. Fourteen (14) respondents indicated, there was no formal recognition of supervising teachers. A number of these respondents noted they would put strategies into place to do this as a result of participating in this survey. A total of nine (9) respondents stated that contributions made by supervising teachers were recognised by the School Professional Experience Co-ordinator and also at meetings of the Executive. Letters of thanks from the university were also forwarded to the supervising teachers. One (1) respondent nominated that they approached the Head of Department themselves while another respondent (1) referred to “a mention” being made at a morning tea with all staff present. The analysis of the data indicates that there is a significant amount of work carried out by supervising teachers that goes unrecognised at the school level.

Table 6. How does your school affirm and recognise the work of supervising teachers?

<table>
<thead>
<tr>
<th>Response type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal recognises and applauds the positive contribution made by co-operating teachers</td>
<td>16</td>
<td>27.6</td>
</tr>
<tr>
<td>Principal recognises and applauds the positive contribution made by supervising teachers at Parents and Citizens meetings</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Head Teachers recognises and applauds the positive contribution made by supervising teachers at faculty meetings</td>
<td>16</td>
<td>27.6</td>
</tr>
<tr>
<td>Others</td>
<td>25</td>
<td>43.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

**Implications**

Teacher suitability to perform the role of a supervising teacher needs further discussion at a number of levels including regional discussions with School Education Directors, Principals, Head teachers and with academics at the UWS. UWS needs to work with schools to determine criteria that will assist head teachers to make informed judgements about teacher suitability for the supervising teacher role of student teachers during professional experience.

Secondary teachers indicated that time was an inhibiting factor when considering whether to supervise a student teacher. The University of Western Sydney needs to work with schools to promote a culture of adding value to a school through student teacher placements. Discussions need to take place with schools to examine ways in which professional experience does not impinge on already overworked teachers.

The issue of too many universities approaching schools for student teacher placements is of growing concern to both schools and UWS. Although a New South Wales
Department of Education and Training (DET) priority system is policy, many universities do not operationalise the policy but approach schools outside their priority placement. This particular issue is problematic for the UWS secondary program as enrolment numbers are increasing each year and placements offered by schools are decreasing.

The data suggests that more could be done by both the principals of secondary schools and head teachers to affirm and recognise the significant and valuable work of supervising teachers. It would seem that the affirmation of supervising teachers work and contribution could be considerably strengthened through a variety of avenues, including whole staff meetings, faculty meetings and Parent and Citizen meetings. Affirmation by leaders in the school would acknowledge the value and critical role that teachers play in supervising students during their professional experience.

Conclusion

UWS and schools need to investigate strategies that will lessen workloads of teachers who contribute to the professional learning of our future teachers. A number of issues have been identified in this study that need to be addressed. These issues include time made available for teachers to support student teachers in their learning, affirmation and valuing by the school of the work that is contributed by supervising teachers to the learning of student teachers as well as reducing the numbers of universities approaching the same schools for placements.

The results of this questionnaire have articulated the need for a better connection with all stakeholders in the professional experience process. The issues highlighted demonstrate that there is a need to continue to have dialogue with all stakeholders to improve the professional partnerships that UWS has with its secondary schools. School placement availability will continue to be difficult if the issues highlighted in this paper are not addressed. At all levels of the education sector, but particularly in schools, it is imperative that teachers believe and act on their professional responsibilities to contribute to the professional learning of student teachers offering placements and providing quality supervision.

References

### Appendix 1

#### SCHOOL PROFESSIONAL EXPERIENCE CO-ORDINATORS

Please circle (Ο) the most correct response

**Question 1.** How do you promote professional experience to the teachers in your school?

- [a] Discussion at staff meeting [1]
- [b] Faculty discussion [2]
- [c] Proforma sent to staff rooms [3]
- [d] Proforma posted in general area such as a common room [4]
- [e] Other (please specify) [5]

**Question 2.** How do teachers indicate their interest to be involved in the professional experience program?

- [a] Discussion at staff meeting [1]
- [b] Faculty discussion [2]
- [c] Proforma sent to staff rooms [3]
- [d] Proforma posted in general area such as a common room [4]
- [e] Other (please specify) [5]

**Question 3.** Who decides the suitability of a teacher to perform the duties of a supervising teacher?

- [a] Head Teacher decides suitability [1]
- [b] Professional Experience co-ordinator decides suitability [2]
- [c] Teacher decides they are suitable role models [3]
- [d] Principal decides suitability [4]
- [e] Other (please specify) [5]

**Question 4.** Does your school have processes to determine the suitability of teachers to act as a supervising teacher? Please describe the process.

**Question 5.** Are there factors in your school that inhibit teachers participating in the University of Western Sydney secondary professional experience program?

- [a] Not enough time [1]
- [b] Too many universities asking for placements [2]
- [c] Teacher not interested [3]
- [d] Teachers think they should be paid more for supporting a student teacher [4]
- [e] There is not a school/faculty culture of supporting student teachers [5]
- [f] Not enough experienced teachers in the school [6]
- [g] Other (please specify) [7]

**Question 6.** How does your school affirm and recognise the work of supervising teachers?

- [a] Principal recognises and applauds the positive contribution made by supervising teachers at whole school staff meetings [1]
- [b] Principal recognises and applauds the positive contribution made by supervising teachers at Parents and Citizens meetings [2]
- [c] Head Teacher recognises and applauds the positive contribution made by supervising teachers at Faculty meetings [3]
- [d] Other (please specify) [4]

Any other comments you would like to add?
Choosing our ideas, words and actions carefully:  
Teaching and learning with our pre-service teachers

David Zyngier  
Faculty of Education, Monash University

Australian teacher educators and teachers have become increasingly familiar with the notion of Productive Pedagogies. In this paper the value of Productive Pedagogies as a meta-language for developing pre-service teachers’ knowledge and understanding of teaching is examined; whether Productive Pedagogies is a language that is intelligible for pre-service teachers without access to this prior teacher knowledge or whether its elements and dimensions merely constitute an isolated vocabulary. Drawing on pre-service teachers’ fieldwork observations, the paper argues that Productive Pedagogies’ language is indeed useful in the development of pre-service teachers’ critical understanding of the role that higher order thinking, connectedness and recognition of and engagement with difference plays in pedagogy.

We need to have curriculum conversations, … get them talking in staff meetings about how they adjust their pedagogies to get better results – showing and mentoring the rest of us about how it can be done. To do so we need to have a common vocabulary and framework for looking at and talking about pedagogy. … We need … curriculum conversations about what we did differently. (Luke, 2002, pp. 9–10 emphasis added)

The centrality of teaching, the explication of what good teaching involves, and the valuing of teachers’ knowledges are recurrent themes at teacher education conferences. Gore et al., (2001) argue that preparing teachers who can produce high quality outcomes for all of their students requires teacher educators to give greater importance to what they do and say about good classroom practices; that is, what teachers do, matters.

Australian teacher educators and teachers are become increasingly familiar with the notion of Productive Pedagogies, itself the product of longitudinal research on school reform recently undertaken in Queensland, Australia. More generally, Government Departments of Education have begun to acknowledge the importance if not its centrality, of good pedagogy for successful teaching.

In this paper, the value of Productive Pedagogies as a meta-language for developing pre-service teachers’ knowledge and understanding of teaching is examined; whether it is a language that is not only intelligible but also efficacious for beginning pre-service teachers or whether its dimensions and elements merely constitute another isolated vocabulary.

We firstly background the development of Productive Pedagogies and review the research focussing on Productive Pedagogies in the training of pre-service teachers. We outline how the first year pre-service teachers were introduced to the concepts of the pedagogical language of Productive Pedagogies, while reflecting on the cultural
capital of pre-service teachers and the implications of a critical language for pre-
service teachers with which they might be equipped to read education, pedagogy and
schooling. We conclude by analysing eight of the students’ observations of teaching
practice to ascertain if Productive Pedagogies’ language is not just useful in the
development of pre-service teachers’ understanding of teaching, but whether this
reconceptualisation of pedagogy can be efficaciously introduced to first year students
as Gore et al., (2001) conclude is necessary.

Productive pedagogies

Productive Pedagogies is derived from the Queensland School Reform Longitudinal
Study (QSRLS) (Lingard et al., 2001a; 2001b); a three-year intensive observation of
24 representative state primary and secondary schools, representing the largest and
most detailed school reform study in Australia.

The study was concerned with how student learning, both academic and social, could
be enhanced. The base assumption of the research was that this enhancement required
quality classroom teaching. Quality learning experiences, what the QSRLS has termed
productive pedagogies is then crucial to improved student outcomes for all students,
but in particular those most ‘at-risk’ of failure; those from socially, culturally and
economically disadvantaged conditions (Lingard et al., 2001b, pp. 103-5).

Since 2001 there have been limited but significant contributions to this discussion
focussing on Productive Pedagogies in the education and training of pre-service
teachers (Gore et al., 2001; Sorin & Klein, 2002; Wilson & Klein, 2000).

Gore et al., conclude that:

Productive Pedagogy needs to come early in the teacher education program in order to be
more fully integrated into students’ knowledge base for teaching. If it is just another
framework, just another theory, just another list, then students are likely to draw on it as
they might any other approach. Instead, if students are to treat Productive Pedagogies as
foundational to all of their efforts in teaching, it needs to be: (1) clearly positioned in that
way from the beginning of the teacher education program; (2) used as a device to guide
all aspects of the teacher education curriculum; and (3) modeled in the pedagogy of
teacher educators. (Gore et. al. 2001, p. 8)

Setting the scene

In 2002, the first year primary and early childhood pre-service teaching foundation
studies at Monash University (Peninsula Campus) included for the first time an
introduction of the concepts of Productive Pedagogies. Two hundred students, were
exposed to this new conceptualisation of pedagogy that suggests that there is no one
correct pedagogy that will meet the needs of all students in all sites of education. This
preliminary research involves a case study of a eight representative students. As
teacher educators, we wanted to know whether Productive Pedagogies is an
intelligible language for pre-service teachers in the context where its origins are in the
observations by experienced teachers of experienced practitioners. We wanted to
establish whether it is really possible for first year pre-service teachers - many coming
directly from their final year of secondary school - to make any sense of this new language about professional practice.

Significant for us was the issue of “literacies” of pre-service teacher education students raised by Zipin and Brennan (2001) in particular with reference to dominant cultural capital (Bourdieu, 1990). A significant proportion of our students may not have the required cultural capital brought from their backgrounds (both home and school) which enable them with the kinds of dominant knowledge practices on which university study generally relies (Zipin et al., 2001). About two thirds of the students are primary B.Ed. while the rest are early childhood B.Ed. Most are of Anglo background, with a small number of older first wave NESB students, as well as an increasing but even smaller number of full-fee paying international students (most of Asian origins). Like most other tertiary students, pre-service teachers will not usually have been exposed to ideas that challenge a dominant hegemony. Our task, through the critical language of Productive Pedagogies was to develop in our students a consciousness that systemically, without overt acknowledgment, schools reproduce social-positional inequality through all sorts of mechanisms that encode the privilege of dominant cultural capital (Apple, 1999). This new language has

the potential to interrupt schools’ automatic privileging of some cultural dispositions as high cultural capital, by broadening what counts as valuable and also providing access to those for whom different literacies are not automatically available. (Zipin et al., 2001, p. 8)

Recent research in pre-service teacher education (Gore et al., 2001, p. 7) reinforces our view that the current priorities on generic teaching methods and strategies, together with an emphasis on class and student behaviour management and lesson planning is derived from a view of education as the transmission of relatively unproblematic and fixed content’ to our pre-service teachers. Pre-service teachers, the research suggests (Cherednichenko & Kruger, 2002; Gore et al., 2001; Sorin & Klein, 2002; Wilson & Klein, 2000), clamour for practical activities, lesson ideas and resources that they can use in the classroom and spend much of their time at the level of “just tell me how ...!”. We set out to challenge the notion that learning to teach is a lock-step process, addressing the ‘preconceptions and dominant discourses in teacher education’ (Gore et al., 2001, 7) in order to restore theory or belief as central. Gore et al., (2001) conclude that pre-service teachers highly value the concept of Productive Pedagogies as the basis for their future work. We wanted to know whether our students too would conclude ‘that pedagogy matters; not only regarding what is learned but perhaps more importantly how’ it is learned (Wilson & Klein 2000, p. 1).

**What was taught - what was learned?**

As part of their foundation studies, we introduced the students to the four dimensions of Productive Pedagogies and the elements within each of those. We decided as a group that it was probably unreasonable to expect any one lesson to have all dimensions and elements evident. The QSRLS states that productive pedagogies is not a formula to follow and one would not expect these elements to be seen every time, all the time in every lesson, nor would they be used in the same way in different settings with different students (Lingard et al., 2001b, pp. 113-4). The QSRLS suggests that
not every dimension is equally required for success for all socio-cultural groups. In other words, it is quite tenable that only one, two or three dimensions would be sufficient for some groups of students, but not all (Lingard et al., 2001b, p. 3).

The research literature demonstrates that where teachers have mechanistically applied Productive Pedagogies, it has become a “shiny object which teachers desire to utilise in classroom practice [only to] lose its lustre as a new and more desirable method comes along” (Loughland & Reid, 2002, p. 1).

The four dimensions problematised

We sought to convey to our pre-service teachers that our interpretation of Productive Pedagogies certainly does not try to replace one hegemony with another. Rather, our understanding of productive pedagogies is that it offers a counter-hegemony (Giroux, 1990), which is cognisant and inclusive of the viewpoints of the most marginalized learners. At the same time, we suggested that all students must acquire the requisite abstract and analytical knowledge if they are to have access to the dominant cultural capital of society (Apple et al., 1999; Bourdieu et al., 1990; Giroux, 1990; Shor, 1996; Teese et al., 2003).

The assignment task

All students in the unit were required to observe in-service teachers taking at least four lessons. In these observations, students were asked to use the dimensions of Productive Pedagogies to describe and analyse what they observed in the lesson, and critique their observations detailing the extent to which those dimensions and elements were evident (or absent) through annotated examples describing the situations how they were employed by the observed teacher and enacted by the student(s). Finally they were to conclude what their analysis might mean for teachers in general and for their own future as a teacher in particular. Most of the students were able to complete the set tasks to a high level in academic terms.

The remainder of the paper focuses on the written responses of eight students, selected to see how appropriately they were able to use the concepts of Productive Pedagogies to discuss their observations of teaching practice.

Pre-service teachers’ views on productive pedagogies

The questions that guided our analysis of the students’ assignments included: (i) what were the things that were paramount in their minds when they went looking? (ii) what kind of things did students identify as either being present or absent? (iii) how did pre-service teachers understand the relationships between dimensions and elements of productive pedagogies and (iv) how might this compare with Gore et al.’s (2001) conclusions (see above) about their research with their fourth year pre-service teachers?

This analysis of the very rich material presented by the eight pre-service teachers only looks at the language and vocabulary used. No attempt has been made to further
deconstruct what they are saying about their understandings of Productive Pedagogies as a basis for pre-service teacher education. Clearly this remains to be done.

What were the things that were paramount in their minds when they went looking?

Rejecting the “just tell me how” approach Simon states that ‘as a teacher I needed to recognise the importance of always providing an atmosphere of “real” learning. For a student, learning should not just be absorbing information delivered to them, but rather teaching should facilitate the student’s own abilities to create their own real and relevant understandings.’

Mary agreed that ‘not all Productive Pedagogies dimensions will necessarily be included in each lesson, but should be seen as integral aspects of an overall philosophy towards the classroom discourse.’ Mary states that ‘Productive Pedagogies has proved vital to my understanding of an inclusive school environment - that fairness is not necessarily achieved by treating everyone in the same way.’

What elements and relationships did students identify as being present?

Clearly the students readily and successfully identified the dimensions and the relevant elements as being present. Commenting on her observations on the dimension of Intellectual Quality, Carol commented about the lesson she observed that students display deep knowledge regarding when they establish and form relatively complex connections between the central topic and tasks at hand … where students are required to … discover the relationship …. to display their understanding and required students to manipulate information and ideas in ways that transform their meanings, …. allow them to be able to construct explanations for their procedures and draw conclusions on what they have done and why.

Further, Carol commented that substantive conversation occurred when the teacher and students interacted to develop a brainstormed list of relevant … words … and when the students discussed words with the neighboring person and finally when the students had to speak to the person correcting their work. Meta-language [was] evident when the teacher explores how language can be used in different circumstances … and for different purposes, … covering meaning structures …, how sentences work, … [all] are solid indications of meta-language within the lesson.

Jasmine observed ‘a boy who grouped the building blocks by colour. ... [while other] children bit pieces out of their bread so they represented people and cars.’ She observes that ‘these children have discovered that blocks and bread can have more than one meaning.’

Commenting on recognition and engagement with difference Alice notes the links to Supportive Learning Environment such that the lessons were structured in such a way that the students were pretty much in control of their own learning development … exhibiting student direction because they had some control over what they were learning, … providing the examples (even if the teachers were fishing for them).’ This, she suggests, exemplifies academic engagement because the ‘children were attentive, they showed genuine enthusiasm … asked questions,
contributed to the discussion, helped out their peers … to try and do things that they may not have had to consider before.

Adopting a critical and reflexive language, Alice relates that knowledge is constructed and that there can be multiple view points which can contrast and potentially conflict … [but] the fact that the children could directly connect the examples and improvements to their own work demonstrated that they understood the task, that there was a connection to the children’s world.

Similarly, Mary writes that the teacher used the occasion of a Maori boy’s birthday to discuss counting in another language … I saw this as evidence of the teacher acknowledging the value of diverse cultures within the group as the student was happy to demonstrate his knowledge of Maori.

Reflecting on his own ideas, Ted writes that I [now] recognize that a supportive classroom environment is more than a place where the walls are brightly coloured, and students’ work is prominently displayed, [but] … a classroom where children’s learning was encouraged in a supportive non-threatening environment, … when students looked confused the teacher re-read a page to emphasise words or concepts and then asked open-ended questions … foster[ing] an atmosphere of mutual respect, trust and support between the teacher and the students.’

What was missing?

Not only could the pre-service teachers identify and talk about elements of Productive Pedagogies that they observed, they were also able to discuss the implications of missing elements. Carol writes that Knowledge as problematic … was an element that was hard to detect. [It] involves an understanding that knowledge is something constructed and developed by learners and is fixed around a body of information. [Although] the actual lesson was based around a central body of information supporting knowledge as problematic, it wasn’t constructed or developed by the learners. The teacher was the source of the development ….

Demonstrating a clear understanding, Carol goes on to suggest how she might have used the same exercise but let the children choose the words and the tasks they must perform with those words … and depending on the words selected could also cover the knowledge being subjected to political, social and cultural implications … I would give the students the opportunity to construct their own learning and base [this] around their ideas.

All the students were able to suggest how they might have modified the lessons to incorporate the various elements so that the ‘missing element could have enriched and empowered the children’s … understanding.’

Conclusion

What can we conclude about the value of Productive Pedagogies as a meta-language for developing pre-service teachers’ knowledge and understanding of teaching? Is it an intelligible and efficacious language for first year pre-service teachers who have not been exposed to any prior teacher knowledge or do its dimensions and elements merely constitute an isolated vocabulary, another framework, theory or just a shiny object? (Loughland & Reid, 2002, p. 1)
Carol understands the difficulties in and the requirement to not necessarily include each dimension and its related elements in every lesson and stated that however it is easy to see that incorporating every element of each dimension requires a long, researched plan when constructing lessons. Much more than I previously imagined. [By] taking your time to think about the purpose and aim of your lesson, you can include each element even if it is only for a short time or minimal level. [But] by doing so you are providing the students in your class with the best opportunity to develop each of the elements.

On the other hand does Anna only see Productive Pedagogies as another (important) strategy that can easily be incorporated into every lesson?

It is important for teachers to have access to tools such as Productive Pedagogies to understand that effective learning can take place ... Productive Pedagogies would be an inherent and natural part of good teachers lessons - an essential tool which can be largely integrated into any lesson.

Bob comments that his analysis positively affected himself ‘as a teacher ... giv[ing me] a perspective on the qualitative practices in the classroom.’ Perspicuously, he adds that ‘I have realized why some or most children don’t like to or can’t handle mathematics … it doesn’t have any connection in their daily lives.’

The observation and analysis task of productive pedagogies gave our students the opportunity to engage in substantive conversation about their own learning and the teaching of their supervising teachers. It provided them with deep knowledge, deep understanding and with a meta-language ‘to stand back and reflect on the things that we do’ (Loughland & Reid, 2002, p. 1). It allowed the pre-service teachers to construct and deconstruct classroom learning situations while promoting higher order thinking. Without the meta-language of productive pedagogies our pre-service teachers may have been confined to mere observation of what was obvious to them in the classrooms they visited, without being able to critically read what it was that actually was taking place between the teacher and the learner(s) and would never have been able to articulate so clearly what in fact was missing from their observed lessons. Some of our students’ responses to Productive Pedagogies (mirrored in the misconception among practicing teachers and many teacher educators) was still on the level of a shiny new object or formula, instrument or framework for good teaching (Loughland & Reid, 2002). Hence Bob concludes that ‘I see Productive Pedagogies as an important teaching aid that enriches student learning and makes teaching a more satisfying and fulfilling profession (emphasis added).

Ted reflecting on pedagogy as problematic concludes that

I am still coming to terms with the theory of Productive Pedagogies – [although] it has taken me thirteen weeks to fully appreciate them, I find myself on unfamiliar ground. ... The challenge is how to apply them ... At present they are like the pieces of a jigsaw puzzle and ... I find it difficult to make the “big picture”. As a first year student teacher I acknowledge my limited understanding and knowledge of teaching, I am now beginning to understand that the elements of Productive Pedagogies just don’t magically appear in a lesson. ... The responsibility lies squarely with the teacher to make a difference to student learning.

The eight pre-service teachers studied here confirm the conclusions of the QSRLS, that Productive Pedagogies is not something new or groundbreaking, but the
identification and expression through the use of a vocabulary and language to describe what good teachers have always been doing in their classes with their students. These pre-service teachers were able to utilize the vocabulary of Productive Pedagogies to successfully describe their classroom observations in its discursive powerfully reflexive and generative language. In our view, these students were engaged themselves in a powerful, and empowering substantive conversation about pedagogy. These pre-service teachers may indeed as Gore et al., (2001) conclude, be better equipped to make learning and teaching more connected to the real world than teachers with years of experience.

Endnotes
1. Typified by the instructional video Good Morning Miss Toliver (1992)
2. To assist readability the Pre-Service Teachers are fictitiously named Bob, Carol, Ted and Alice from the 2001 cohort and Anna, Simon, Mary and Jasmine from 2002 in order to differentiate between the 8 students’ work analysed. Their gender has been kept the same.
3. We weren’t interested in whether they were accurate representations of the teachers’ practices because we don’t know actually what transpired in the classroom. We weren’t there to verify that.

Acknowledgement

The author wishes to acknowledge the support, assistance and advice of Ass Prof. Trevor Gale Faculty of Education, Monash University in the writing of this paper. Dr. Gale began the teaching of this course in 2002 and I was privileged to work with him on the course in 2003.

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Learning circles: Providing spaces for renewal of both teachers and teacher educators

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This paper draws on my experiences of working as a university colleague in ‘learning circles’ in a South Australian Department of Education and Children’s Services (DECS) innovative curriculum redesign initiative entitled ‘Learning to Learn’. These learning circles involve designated school leaders from 6-8 schools/sites coming together twice a term, with Departmental curriculum officers and university colleagues, to reflect on and share their insights, tensions and dilemmas as leaders of the change process, and to grow their understanding of the process. It will be argued in this paper that learning circles provide powerful opportunities for the professional renewal of both teachers and teacher educators.

The term ‘learning community’ is a current buzzword in the literatures on teacher development and school reform. Various names have been used to describe learning communities for teacher development including teacher research groups (Grimmett, 1995), communities of practice (Wenger, 1998), learning circles (Collay, Dunlap, Enloe, Gagnon, 1998) inquiry communities (Cochran-Smith & Lytle, 1999) and teacher networks (Lieberman, 2000). Regardless of name, there is a general agreement that the aim of such groups is to provide an enabling context for teachers’ professional growth, where the professional learning of teachers is shared and problematised (McLaughlin, 1997; Cochran-Smith & Lytle, 1993, 1999; Warren-Little, 2002; Groundwater-Smith & Mockler, 2003).

There are many reported benefits for teachers who participate in learning communities, including them feeling more positive about the profession (Darling-Hammond, 1996), reducing their isolation (Lieberman, 2000) and staying in the profession (Grossman, Wineburg & Woolworth, 2001). Most importantly however, they are seen by many as an effective way to support teachers and bring about the changes that are deemed necessary for effective teaching and learning in the 21st century (Cochran-Smith & Lytle, 1999; Lieberman, 2000; Warren-Little, 2002).

Frequently, ‘networked learning communities’ have some form of connection with academics resulting from various university-school partnerships and collaborative arrangements (McLaughlin, 1997; Lieberman, 2000; Feiman-Nemser, 2001). This ‘critical friend’ role is seen as a very important one in learning communities, in supporting teachers to critically examine practices and the assumptions underlying them and to provide access to a wider community of discourse (McLaughlin, 1997; Groundwater-Smith, 1998; Feiman-Nemser, 2001; Cochran-Smith, 2003). However, unlike the reported benefits for teachers, there is much less known about the benefits
for academics working in such communities. This paper attempts to redress this problem.

The paper begins with some background information and then describes the learning circles as they are utilized in the Learning to Learn project. It then highlights my learning as a result of co-facilitating learning circles for four years. The discussion which follows centers around the power of ‘learning conversations’. I argue that learning circles provide significant opportunities for the professional renewal of both teachers and teacher educators.

**Background**

Since 1999 the South Australian Department of Education and Children’s Services (DECS) has provided funding for selected schools to participate in a program of educational renewal through involvement in the Learning to Learn project. School leaders and groups of teachers participate in a Core Learning Program and a Learning Circle, in order to support site wide programs aimed at transformation of the local learning environment for students and teachers. The Core Learning Program draws on the expertise of educational theorists from Australia and overseas and has been deliberately designed to stimulate thinking about educational futures, purpose and transformation. The Learning Circles provide an opportunity for the designated change leaders in 6-8 sites to come together twice a term, with Departmental curriculum officers and university colleagues, to grow their understanding of the change process.

My colleague, Judy Peters, and I have been involved with Learning to Learn as university colleagues and co-facilitators of five of the learning circles since its inception. Thus far, there have been two ‘phases’ of Learning to Learn, with different sites involved in each phase. This paper reports on my experiences as a co-facilitator of learning circles, drawing particularly on data collected during an eighteen month period from the second phase of schools involved (mid 2002 – 2003). These data include noted ‘learning conversations’ from three different learning circles (36 meetings), evaluation stories written by all learning circle participants during 2003 and notes and transcripts from meetings with the other learning circle co-facilitators.

**Learning circles in Learning to Learn**

**How we started**

When we started the second phase of learning circles, one of the first things to do was to clarify the ‘spirit of intent’. We knew from the previous two years of learning circles, that they were an effective structure for developing the notion of “school leaders as learners” (see Foster, Le Cornu & Peters, 2000). So, the spirit of intent was to ‘create a space’ for leaders of the change process to talk in depth with other leaders from a leadership perspective, to share with others the progress of their redesign project, support each other to develop strategies for building effective learning communities and explore issues confronting leaders.
One of the first things we did with each group was to brainstorm norms. We asked the question ‘What do you need to feel comfortable to participate in the group?’ and then asked the question ‘What might be some tensions?’ The identified norms included norms of support (i.e., respect, non-judgemental, assumption of positive intent, etc.) and norms of challenge (i.e., asking critical questions, being ‘constructively critical’, etc.). The main tension that was recognised was that not everyone would feel comfortable being challenged in the same way or being brought into the conversations.

The project manager expressed her wish that the aim of learning circles was “to get to the deep personal confrontation for leaders”, by “challenging assumptions for changing schools”. This challenge was accepted by the participants, many of whom expressed their desire for “respectful, critical, reflective conversations”. They acknowledged that this would involve “deep dialogue” and “going deeper”. These terms were then discussed with all of the participants, so that everyone had a shared understanding. This discussion was important in setting the tone of the learning circles as the following ideas were articulated: “challenge existing thinking, metacognition, transformational, understanding what your beliefs are/changing these beliefs, perplexing things, looking at things from different perspectives, level of discomfort, examine bias and prejudice, viewing knowledge as problematic”. The participants also recognised the need for a common/shared understanding of critical questioning so they brought questions and processes they used to the next learning circle.

*How they developed: The nature of the conversations*

During 2003 we implemented a process called the Most Significant Change Process (MSC) as a learning tool to deepen participants’ understanding of the complexity of the change process. This process has been described elsewhere (see Le Cornu, Peters, Foster, Barrett & Mellowship, 2003) but it was clear that it was a valuable tool in promoting reflection and learning. It was seen to have potential as a powerful metacognitive process, as it assisted participants in clarifying and challenging thinking and assumptions, identifying changes in thinking and making values explicit.

At each learning circle, there was work around the MSC process, as well as specific time for participants to share their latest challenges and dilemmas. A critical edge was brought to the conversations, by asking participants to share a tension that they were experiencing, rather than just focusing on what they have done since the previous learning circle.

An analysis of the content of the learning circles showed that the conversations centred around two main themes:

- developing a learning culture in their sites
- focusing on themselves and their teachers as learners and understanding the processes involved in learning (being metacognitive).

In developing a learning culture in their sites, one of the first things that the school leaders did for their staff was to make space for reflection. Time was made available for teachers to be involved in learning circles at the school level – to talk with each other about the new thinking they had been exposed to at the Core Learning Program, to share meanings and help them make their understandings explicit. The school
leaders talked about the many challenges that existed for their staff including them confronting old assumptions around teaching and learning, letting go of some often long held beliefs and confronting new assumptions around student participation, which then led to conversations around choice and boundaries and roles. There was much talk around the ‘old system of ‘compliance and control’ and the new system of ‘facilitating a learning culture’.

The school leaders explored similar issues in regard to themselves and building a learning culture for staff. There was recognition that teachers had to be invited into learning again, rather than it being imposed and re-engaging them as active participants rather than them being in passive acquisitional mode. The leaders acknowledged that they needed to adopt a genuine invitational stance, which meant letting go of control. In inviting people to be more responsible for their own learning, different questions needed to be asked. For example, one principal asked her staff; “What kind of engagement do you want?” and “What level of support are you prepared to give?”

An analysis of the MSC stories revealed that people were changing their worldviews – in regard to themselves as learners and understanding the processes involved in learning. People wrote about the need to understand themselves, their patterns and how they respond and their preparedness to change their patterns. Some wrote about the non-linear process of change and their growing acceptance of ambiguity and uncertainty. For example, the following statements were made quite often; “It’s OK not to know, a state of confusion is OK” and “I know this is messy but that’s OK”. People were encouraged to share their stories of significant change with each other. As participants in the learning circles read each other’s stories, certain patterns emerged and criteria about significant change were identified. For example, one learning circle identified the following: Valuing dialogue in learning relationship, Tension and discomfort, Asking questions, Deconstruction of terms, Constantly challenging to make things explicit and voicing underlying assumptions, Interrogate own thinking and other people’s and Messiness (learning, unlearning, relearning).

The leaders agreed that there needed to be ‘safe’ places for learning where there were opportunities to think aloud and value everyone’s experience. The leaders concluded that they needed to build a culture where “we are all learners, risk taking is valued and encouraged, it is OK to make a mistake and where “a degree of discomfort in our learning actually provides for active learning”. This last point represented a very different view for some of the learning circle participants to that which they had held previously. One person captured what it meant for her: “It’s about being comfortable to be uncomfortable in relationships”.

Where we’re up to

At the time of writing this paper, we are at the stage of addressing the question ‘How do leaders sustain the level of engagement/change?’ This is an important question, given that the schools are only officially involved in Learning to Learn for another term, with only two more learning circles and given what we know about the
difficulties associated with sustaining educational change. The participants are really looking forward to having this conversation and to continue their learning, as am I.

Benefits for a teacher educator: A space for my professional renewal

Being immersed in such rich ‘learning conversations’ regularly and being faced with the challenge of working with such thoughtful and skilled educators has had, and is having, a profound influence on me. This point was made very clear to me when I was faced with the challenge of writing my own MSC story. I had to really think about why my involvement with Learning to Learn had been significant. In my story I wrote: “A significant change for me…has been what I would call a personal-professional one. I now think about educational issues and concepts differently. I also engage with ideas differently” (Le Cornu, 2003). Never have I been more aware of the tensions and dilemmas in my work. Never have I been more challenged by constantly asking myself questions like “What’s the real message I’m sending when I say…” or “Am I ‘controlling’ or ‘scaffolding’?” This can get very tiring when you do it at learning circles, in workshop groups with student teachers and following individual interactions with students/colleagues, etc.!

However, there is no doubt that I have been professionally re-energised through my involvement in learning circles. I am indebted to Learning to Learn for inviting me to co-facilitate the learning circles. I started the project seeing myself as a co-facilitator of learning circles. I now see myself as a ‘co-learner’. I find myself taking something away from each learning circle. This might be a quote to think more about such as “control yourself not to control!” or, it might be reflecting on a conversation such as the one in response to someone saying “I don’t need trusting relationships to learn!”

As well as being immersed in thinking and learning at each learning circle, we also had another structure which aided my learning which was regular meetings with the other co-facilitators; my colleague, Judy Peters and two DECS staff; Margot Foster, Learning to Learn Manager and Robyn Barrett, Learning to Learn Project Officer. These meetings allowed us to debrief and collaboratively plan the learning circles and engage in a level of reflection that enabled us to unpack our assumptions also. This was a most valuable learning process for me, particularly in relation to my responses to some of the things that occurred at learning circles. There were varying degrees of tensions apparent in the different learning circles. Sometimes these were related to the nature of the task (e.g., the writing process) but at other times these were related to how individuals negotiated (or didn’t negotiate!) their learning needs. For example, at one of the learning circles, a participant declared publicly “this is interfering with my learning”, in reference to what was happening at the time and then proceeded to engage everyone in an alternative task, which clearly did not meet the needs of some of the others. I needed help in unpacking my assumptions around this incident!

I have learnt much about facilitation of learning circles and the nature of professional learning. I have changed. I now ask different questions and interact as an educator differently to how I did before my involvement with Learning to Learn.
Discussion: The power of ‘learning conversations’

Clearly the Learning to Learn learning circles did provide a space for professional renewal of both teachers and teacher educators. They provided ‘time out’ from school/university for us to reflect, make sense of things and be challenged to think about things differently. They provided an opportunity for participants to “create as well as receive knowledge” (Lieberman, 2000). In the learning circles, we were all positioned as and became co-constructors of knowledge and co-learners. This is in line with a social constructivist view of learning, which suggests that learning should be “participatory, proactive, communal, collaborative and given over to the construction of meanings rather than receiving them” (Bruner, 1996, p. 84). In this way, the learning circles acted as ‘learning communities’.

As noted earlier in the paper, the term ‘learning communities’ has become a buzzword in the literature. Some writers have criticised the use of the term, claiming that it often represents vague and underconceptualised notions of teacher professional community (e.g., Westheimer, 1998; Grossman, Wineburg & Woolworth, 2001). Such claims have led writers to clarify what is meant by the term. Westheimer (1998) for example, identified five common themes in theories of community: interdependence, interaction/participation, shared interests, concern for individual and minority views and meaningful relationships. If we take these as useful criteria, I would argue that these indicators were more or less present in each of the learning circles.

Another way to define learning communities is by their commitment to inquiry. Feiman-Nemser (2001) for example, argued that what distinguishes professional learning communities from support groups, where teachers mainly share ideas and offer encouragement, is “their critical stance and commitment to inquiry” (p. 1043). She stressed that teachers need to have the following dispositions to learn from teaching; “seek evidence, take risks, remain open to different interpretations” (p. 1030). We were constantly challenged to develop these dispositions in the learning circles. Another way of describing this, is to say that we were developing Cochran-Smith and Lytle’s (1999) notion of ‘inquiry as stance’. These writers use the metaphor to capture “the ways we stand, the ways we see and the lenses we see through” (p. 288). They argue that such a stance is critical to teacher learning in communities.

Most recently, Cochran-Smith (2003) stressed that engagement in learning communities involves: “… both learning new knowledge, questions and practices, and, at the same time, unlearning some long-held ideas, beliefs and practices, which are often difficult to uproot” (p. 9). This notion of ‘learning and unlearning’ was very evident for both the leaders and myself. Hence, from a number of perspectives, I would argue that the learning circles provided space for participants to experience and engage in a learning community. They simultaneously provided space for participants to develop new understandings about how to establish a learning community. For the school leaders, this related to their schools, while for me, it related to all aspects of my work. The learning circles were thus very significant in their influence.

A key finding from my involvement in learning circles has been the power of ‘learning conversations’. This is a term that was used often by the participants in
learning circles, mainly in reference to the nature of the dialogue that occurred in their sites. They would refer to classroom ‘learning conversations’ between teachers and students and students and students, which allowed for meaningful dialogue and opportunities for students to make connections in their learning. They would also refer to ‘learning conversations’ between teachers, which enabled teachers to “make sense of their learning”. I would argue that such conversations were also a feature of the Learning Circles. When asked to define a learning circle, a number of the respondents answered with: “time and space to go deeper into meaning.”

A learning conversation engages learners in a deeper way than an ordinary conversation or exchange of ideas might. It is a conversation that “looks into things”, with the idea of making meaning and/or coming to a deeper understanding. It could also be called an inquiry conversation or a reflective conversation. It goes well beyond describing as it involves analysing and problematising. Feldman (1999) argued that conversations are a form of inquiry which enable people to “work through the dilemmas, quandaries and dissonances that relate to their living and being in the world” (p. 137).

Another way that learning conversations engage participants in a deeper way, is that they require different ways of relating to that which many experienced educators are familiar. Grossman et al.,(2001) explained the challenges this way:

Forming a professional community requires teachers to engage in both intellectual and social work – new ways of thinking and reasoning collectively as well as new forms of interacting interpersonal. Learning from colleagues requires both a shift in perspective and the ability to listen hard to other adults, especially as these adults struggle to formulate thoughts in response to challenging intellectual content. (p. 973)

Thus, to really engage in learning communities, or to participate at a ‘deep level’, individuals need a preparedness to learn from and with others and accept the responsibility of contributing to the learning of others.

To understand the power of learning conversations, I found Feldman’s (1999) analysis of the role of conversation in collaborative action research useful. He reviewed three examples of the use of conversation in collaborative action research – the first is what Cochran-Smith and Lytle (1993) call oral inquiry processes, the second is what Hollingsworth (1994) refers to as collaborative conversations and the third is what Feldman (1996) has called long and serious conversations. From analysing the various conversations that were used in teacher meetings, he concluded that conversations have the following characteristics: “they occur among people, are cooperative, have direction, result in new meaning and are not governed by the clock. He explained that while group meetings are governed by the clock, the teachers’ conversations are not in that they “continued to the next meetings, involved new participants in school or at home and have evolved in directions that include participants in new ways” (Feldman, 1996, p. 133). This was certainly my experience from the Learning Circles – I would go home or back to University eager to talk to anyone about what had happened! Or, we would reconnect in learning circles, with unfinished conversations from the previous one. Some of the power then was in the energy they generated.
The ultimate power of learning conversations is that the locus of control in the learning process remains with each person. Margot Foster, Manager of Learning to Learn, alluded to the power of this when she said, “Generative learning is generating your own constructed new meanings, your own ‘aha moments’, it’s not implementing others.” As a teacher educator involved in the Learning to Learn learning circles, I have had a number of ‘aha moments’ for which I am extremely grateful!

**Conclusion**

There is no doubt in my mind that the benefits of learning circles for me, as a teacher educator were very similar to those espoused for teachers. That is, they enabled professional renewal. The learning circles provided a space away from my usual work and, given the nature of the learning conversations, provided me with much needed professional nourishment – intellectually and emotionally. One of my challenges now as a teacher educator is creating opportunities to utilize the notion of learning conversations in my work with pre-service teachers, teachers and indeed, other teacher educators.

**References**


Exploring the “gap between hope and happening”: Gender equity policy in New South Wales schools

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Teacher threshold knowledge about gender as an educational issue is considered in the gender equity literature to be essential for the success of gender programs in schools, particularly in the area of working with boys. Research indicates that teachers have a wide range of disparate understandings about gender issues. This paper explores the tensions present when working with a variety of viewpoints from my perspective as a gender equity consultant who has undertaken a self-study of teacher education practices investigating my practice working with teachers. The problematic nature of policy as text and as translated by teachers is a focus for discussion.

I was appointed as a Senior Education Officer to the Gender Equity Unit of the New South Wales Department of Education and Training (DET) in 2001. Part of my role in this position was to act as a consultant to schools implementing the DET’s gender equity policy, *Girls and boys at school: Gender equity strategy* (1996). This policy was developed in line with *Gender equity: A framework for Australian schools* (1996) and is informed by an understanding of gender as a social construction.

To support my professional development whilst in the position, I began doctoral study which focuses on a self-study of my work as a consultant to teachers. Self-study of teacher education practices aims to support practitioners working in teacher education to reflect upon and subsequently reframe their practice. Self-study of teacher education offers researchers the opportunity to critique their practice and, therefore, facilitates personal professional development. This is done through a process of systematic contextual analysis, which provides insights into an individual’s lived experiences within contexts of personal and institutional histories (Cole & Knowles, 1995).

This notion of self-study as supporting an exploration of practice is highlighted by Bullough and Pinnegar (2001) who point to the connection between studying practice and studying self when they describe self-study as “a study of self-in-relation to other” (p. 14). They suggest that whilst self-study is about practice, this occurs at the intersection of self and other and focuses on the space between self and the practice under exploration, the aim being to make the interaction educative. Self-study allows for regeneration of the profession as its aim is to improve practice through critical reflection.

To assist in the reflexive aspect of self-study, a critical friend is part of the process so that peers are supported in their reflection and subsequent reframing of practice by a knowledgeable “other”. Whilst the majority of self-studies are undertaken by
academics working with pre-service teachers, the process has validity for those working with experienced teachers as it offers a means for improvement of practice through critical reflection and subsequent reframing of practice.

Through my self-study, as I examined the data I had collected in interviews with teachers, I realized that the teachers with whom I was working were approaching their work in the area of gender equity from a wide variety of viewpoints that were not necessarily in line with the framework of the DET’s policy. I regarded this as problematic, given the disparity of understandings that teachers indicated they held in my conversations with them.

This paper presents data revealing teachers’ disparate views about gender equity and reveals ways in which I have sought to reframe my practice to take this situation into account. It also offers some considerations for the future of gender equity policy implementation that take into account teacher’s understandings.

“That gender equity stuff is just political correctness anyway, isn’t it?”

The quote above was made to me by a school principal at a social occasion and points to the attitude held by some teachers and principals. Prior to the current gender equity policy, NSW policy in gender equity was a girls’ education policy aimed at supporting girls’ education through a process of equal opportunity. This policy was supported by federal government funding for its implementation at the state level of schooling. The level of funding available meant that most teachers were aware of the policy and had some experience with its implementation. This policy was developed at a time when both federal and state governments had strong women’s department that were adequately funded and supported the work being done in schools across the country.

The current DET gender equity policy was sent to schools in its white plastic case in 1996 with little funding to support its implementation. The policy was developed and provided to schools in the mid-nineties at a time when women’s department within governments were being eroded and down-sized, if not closed altogether. The result has been that teachers have not been so well supported in its implementation, therefore their knowledge of the policy and its theoretical framework varies across schools and teachers.

Studies reveal that teachers view gender equity through a variety of interpretive frameworks from equal opportunity (Collins et al., 1996) to biological determinism, social conditioning through to gender as socially constructed and that these views can vary from situation to situation for the same teacher (Butorac & Lymon, 1998) as she attempts to explain the behaviour of students. I was keen to determine the views about gender of the teachers with whom I was working as I believed these views would determine the success or otherwise of the professional development that I provided for them.

The study that is the focus of this paper was undertaken in two primary schools with which I worked as a consultant from 2001 to 2003. Warner Public School is a school
of approximately 680 students in the northern suburbs of Sydney. Brownley Heights Public School has some 446 students and is situated on the northern beaches of Sydney. Both schools were selected for the study as they were two of the schools that I was to support in the course of my work. I selected them to allow reflection of my actual practice rather than establishing relationships with schools for the sake of my research.

The teachers with whom I worked ranged in experience from Kathy in her third year of teaching to Pamela with some twenty years experience. The majority of participants were women, which fits with the statistics that show a predominance of women teaching at primary school level.

At Warner it was requested that I work with staff for a day exploring various areas of gender equity including staff understandings about gender as an educational issue and ways of incorporating teaching about gender into teaching and learning programs. My work at Brownley Heights began with a focus on engaging boys in the area of literacy, however, the ongoing support I provided was in the development of a social skills program and exploring ways of teaching about gender across all curriculum areas.

**Methodology**

To undertake my self-study, I used narrative inquiry methods (Clandinin & Connelly, 2000) to gather stories of teacher professional development and also to tell my own stories of experience as a gender equity consultant.

I employed a variety of data collection methods throughout the study. I maintained field notes containing information about each of the schools at which I worked, my role within the school and my observations about each school site. I conducted interviews with some of the teachers with whom I worked, regarding their thoughts about the professional development undertakings. I also regularly engaged in dialogue with a work colleague, who acted as a critical friend, about issues of concern to us both in our work as consultants.

My research journal documents my thoughts before and after each experience within the various schools, as well as reflections upon my experiences. My journal also outlines my thinking as I sought to reframe my practice, informed by my experiences in the various schools and dialogue with my critical friend.

“**It’s about equality for girls and boys**”

At both schools described in this paper I included a session on the concept of gender as socially constructed. For this I used everyday items such as birthday cards, catalogues and popular magazines for teenagers and children to discuss with teachers the ways in which masculinity and femininity are constructed through the images and language used in these items. The sessions then continued on the topics described earlier in the paper.
After I worked for the day on gender issues with the teachers at Warner Public School, I interviewed a group of twelve teachers to gain their perspectives about the professional development experience. The teachers revealed varying understandings about gender equity.

Pamela views gender equity as ensuring that girls have equal opportunities with boys. She sees this as part of her teaching responsibility.

I’ve never had preferences over girls or boys. I think that it’s important to ensure that girls have the same opportunities as boys. It’s about equality for boys and girls and that’s something I try to put into place in my classroom. (Pamela, June 2002)

Her understandings stem from an earlier gender policy that employed an equal opportunity approach to the issue of girls’ education.

Brian, a Year 6 teacher at Warner expresses his understandings about gender equity in the following.

With my Year 6 I find it’s a case now of looking at the literature we study from different perspectives – who does what and where gender issues fit in so and a lot of our discussion is challenging the kids’ gender-based assumptions and they’re very happy to take new ideas on board.

For example, who’s in what position and how things are done. They’re constantly asking, “Where does this fit in?” They don’t see that there should be any limitations because of a person’s gender. So they can look at any area and transfer the thinking to any area. With different newspaper articles For example, what people are doing and how they’re responding to it – it’s part of approaching it to the wider world. How it fits in with the class discussions.

I think things are changing. Some of the girls used to act dumb to play up to the boys. But now with selective high school testing and things it’s all about who you are and what you have to do to get there. I’m not going to play this game so they get involved in a lot more things. Like they play a lot more sport and games which has caused other issues like from that survey with the boys thinking the girls are taking over the playground area. So it’s challenging both sides on how things fit together especially on a playground nature. Things will continue changing. (Brian, June 2002)

Brian reveals that he tends toward an understanding of gender as being socially constructed. He recognises there are different perspectives on any given issue and encourages the development of this understanding with his students across a variety of Key Learning Areas.

Kathy, a Kindergarten teacher, did not see that gender issues were relevant to her teaching at all.

I don’t think Kindergarten children even know what a girl and a boy is sometimes. They’re so self-centred.

We looked at the books that we focused on that day and it’s interesting a lot of the kids have already read them. I think they just look at it as an interesting story and when you try and bring up issues they just say that was great – what’s the next thing? (Kathy, June 2002)
Kathy sees her students as innocent bystanders where gender issues are concerned. She takes her direction from the reactions of her students, seeing them as somewhat gender neutral.

At Brownley Heights, where I worked with the staff over a period of two years, understandings about gender were also variable. Lisa, the Assistant Principal who was driving most of the gender equity work within the school made the following comment.

Within the social skills we’ve looked at different learning styles so hopefully if we look at it across KLAs the different learning styles will come through. The problem I find is my kids love acting, doing, computer stuff, building. I can’t get them to do any pen and paper stuff anymore. It’s hard work to get them – it’s Maths textbook time. They’re so, “Oh can’t we do our play?” They need to be able to do it all. I think learning styles is something that should come through with that – because of the boy’s issue you know. They are such active learners. (Lisa, November, 2002).

Lisa unproblematically accepts the biological determination notion of all boys as active learners. She adopts a common sense approach to the issue of boys’ education, regarding all boys as similar in their learning style.

My uncertainty about how to work with the wide range of teacher understandings is revealed in the following journal entry.

I’m not sure if I can ever provide successful professional development experiences for teachers that are positioned so far along a continuum of understandings about gender equity. It seems that I am being asked to work with limited understandings to implement a policy that has been around for seven years but that many teachers are not really aware of. They know about the white suitcase but I wonder how many have opened it and read the support materials. I’m afraid not many! (Journal entry, December, 2002)

These disparate views about gender held by just four teachers with whom I worked caused me a level of concern. I was uncertain how to conduct effective professional development in the area of gender equity with teachers that had a range of views about gender that placed them along a continuum of understanding from seeing gender issues as irrelevant for their students, across the whole spectrum of ideas to an understanding of gender as a social construction. Whilst I had been aware that teachers would hold a range of ideas about gender issues, I did not realise the extent to which the disparity would impact on teachers’ reception of the professional development experiences I presented.

This concern became the focus for a discussion I had with Ian, my critical friend who was a colleague in the gender equity unit, regarding the best way to inform teachers’ practice about gender equity issues, from a social construction perspective.

Ian – If we can develop models of work that people can put into place this might assist them in their thinking about gender issues. You know, units of work that they can take away and use. This might lead to small shifts in their own planning.

Leonie – I’m not so sure that by giving teachers units that you will have an impact on their understandings about gender. It may end up being just another unit of work to implement and when that’s done it’s on with the next one – no change to understanding about gender issues at all.
Ian – Yes but if we give teachers practical ways of including gender into their teaching programs it might lead to small shifts in understanding.
Leonie – Yeah and it may lead to no change at all! The problem for me is that we have time to sit and read about gender equity. That’s part of our job. Our understandings are well-developed in terms of understanding gender as a social construction. Your average teacher does not have the time to read and so their understandings are not about the same things as ours. How do we address this problem?
Ian – I guess we need to explore ways of looking at different viewpoints with teachers before we can do anything else with them. (Critical friend conversation, January, 2003).

Both Ian and I realised that we needed to do more than introduce teachers to the concept of gender as a social construction. We needed to develop strategies which would enable and support teachers to critique a variety of interpretive perspectives.

With this outcome in mind, Ian and I developed a workshop which aimed to explore teachers’ understandings about gender that we used in several schools with quite good results. We strongly believed that unless we developed with teachers some understandings about gender as socially constructed we could not support them to implement the policy with their students. We worked to explore a variety of interpretive perspectives with teachers by presenting various scenarios and allowing teachers time to reflect upon and discuss these with their peers. Included was the opportunity to critique various perspectives in terms of their effectiveness for addressing various gender issues that arise in schools. This workshop provided us with an opportunity to discuss various interpretive positions with teachers and was a positive step in the direction of informing teachers about current theory about gender construction.

The issue for us as consultants, however, was one of time as often we were invited into schools to deliver a one hour session on topics such as boys and literacy or girls and technology – hardly enough time to truly engage teachers in critical conversations about their personal understandings about gender.

Conclusion

My work with teachers in schools in the area of gender equity revealed to me the wide variety of understandings about gender held by teachers. This supports the literature on the implementation of current gender equity strategies in schools. Many of these understandings seemed to stem from common sense understandings about gender rather than from a basis informed by wide reading about gender issues or a theoretical understanding of the current DET gender equity strategy.

My concern was how to address this disparity of interpretive perspectives in a way that would assist teachers to move towards an understanding of gender as socially constructed. My research revealed to me the importance of working with teachers on developing their understandings about gender as socially constructed so that teachers are aware of the theoretical basis that underpins the DET policy that it is mandatory for them to implement. Such work requires funding to enable teachers the time to engage with the literature to develop their understandings and also to reflect upon the implications for their classroom practice.
Teacher threshold knowledge about gender as an educational issue is regarded as of major importance to the success of gender equity programs (Lingard et al., 2002). Part of this threshold knowledge needs to include an understanding of the concept of gender as socially constructed so that teachers are working from a perspective that is in line with the DET’s gender equity policy.

Given that the majority of teachers teaching today trained over twenty years ago, their professional development needs to include current information about gender equity. Unfortunately such training is not mandatory for today’s pre-service teachers with gender equity workshops often provided as mere two-hour workshops that students can choose to do as part of a day of workshops exploring DET policies.

Ball (1994) discusses the notion of policy as text and policy as discourse, so that there are several layers to the implementation of any given policy – one being the actual physical document, others being the ways in which teachers translate policy through their own experiences and understandings. He also draws attention to the fact that many policies are not ever read but are reliant upon various gatekeepers such as head teachers and consultants to relate policy to context. This would seem to be the case for the current DET gender equity strategy as many teachers admit to not having read it.

The discourse of a given policy will be determined by teachers’ theoretical frameworks. It would seem naïve of the DET to assume that policy will be translated into classroom practice as it was intended without providing the necessary support for teachers to develop understandings of the policy and its theoretical underpinnings.

Whilst Ian and I were able to develop a workshop which aimed to address teachers interpretive framework about gender issues, this workshop has not always been able to be used with schools, given the often short time frames that exist for the professional development we deliver in schools. The workshop has been most successful when delivered as part of ongoing work over a period of time with a given school.

Policy implementation needs to be supported by adequate provision for teachers to engage with the meaning of the policy, both in terms of theoretical underpinnings and also practical implications for their daily teaching practice. Unless this is provided the “gap between hope and happening” (p.1) that Kenway and Willis (1997) describe in their discussions about gender equity policy implementation will continue.

My self-study enabled me to explore the effectiveness of the professional development I delivered to teachers and assisted me to reframe my practice in a way that has resulted in more effective delivery of professional development in the area of gender equity. Self-study offers those working with teachers the opportunity to reframe their practice through a process of critical reflection. Such a process allows for continuing improvement of the work undertaken with teachers so that in-service becomes relevant to the needs of schools and teachers rather than a one-size-fits-all scenario.
Footnotes
2. Pseudonyms have been used for all schools and teachers.

References


Rhetoric vs reality for beginning teacher competencies: 
Who says what beginning teachers need to know?

Ann Baxter, Garry Hoban and Brian Ferry
Faculty of Education, University of Wollongong

Preparing teachers for the complex task of teaching in the twenty-first century has been the subject of research and debate for over two decades. Reviews into teacher education during this time have generated more than 400 recommendations and conclusions (Ramsey, 2000). Many of these reports appear in the MACQT (1998) document with substantial recommendations which have had LITTLE or NO impact. We would suggest that this minimal impact is due in part, to the lack of voice from classroom practitioners about what really matters in teacher education. This paper reports on what teachers had to say about the desirable attributes of beginning teachers as proposed by the MACQT report (1998).

Clarke, in Loughran and Russell (1997), makes the point that:

Classroom teachers who work with student teachers in the practicum setting play a critical role in pre-service teacher education. Faculties of education acknowledge the importance of this role, but largely overlook and undervalue its importance in conversations about pedagogical practices in teacher education. (p.179)

In agreement with Clarke’s observations, Wideen, Mayer-Smith and Moon (1998) suggest that ‘more attention needs to be directed at an in depth study of how other players affect the landscape and process of learning to teach…supervising teachers are frequently missed in the research’ (p.169).

This lack of voice from classroom teachers about what really matters in teacher education, in turn, creates a gap in understanding for both faculties of education when they are planning their programs and for policy makers when they are reviewing and making recommendations about desirable beginning teacher competencies. Is there a clash of values between what program and policy makers define as beginning teacher competencies and what practising classroom teachers see as essential graduate attributes? If so, why?

This paper reports on an initial survey that is part of a larger study regarding teachers’ approaches and beliefs about practicum supervision. It was deemed important to ascertain teachers’ beliefs about their practice and competencies before the program started to determine their backgrounds and beliefs about why they do what they do. The questions in the survey were designed using the framework for desirable attributes of beginning teachers as proposed by the MACQT report (1998).

The section of the optional survey reported in this paper, asked practising teachers to answer 19 fixed response questions concerning what they considered to be the
desirable competencies of beginning teachers. They were then asked to rank what they considered to be the most important of these in preparing student teachers for life in the classroom in the 21st century. Question 20 (an open-ended question) was set as an opportunity for teachers to have their say.

**Background**

Teachers’ competencies are strongly related to the beliefs they hold about teaching and learning (MACQT, 1998). Moreover these beliefs are often grounded in school-based experiences in classrooms rather than in teacher education coursework (Lortie, 1975). The main source of these experiences is the 15-16 years that teachers spend in schools as students, as well as practice teaching experiences within their teacher education degree. Lortie (1975) called this phenomenon of grounding beliefs in school-based experiences as their “apprenticeship of observation.” However, he made the point that it was not like a real apprenticeship because students do not gradually acquire the occupation’s technical knowledge or gain an appreciation of the problematic nature of teaching. Instead, school students’ understanding of teaching from their experiences of schooling are often at the emotional level and are not analytical about the quality of teaching:

The student’s learning about teaching, gained from a limited vantage point and relying heavily on imagination, is not like that of an apprentice and does not represent acquisition of the occupation’s technical knowledge. It is more a matter of imitation, which, being generalized across individuals becomes tradition. It is a potentially powerful influence, which transcends generations, but the conditions of transfer do not favour informed criticism, attention to specifics, or explicit rules of assessment. (Lortie, 1975, p. 63)

Hence, student teachers and beginning teachers have very strong beliefs about what constitutes “competency” even though these beliefs may differ with policy makers and teacher educators (Burn, Hagger, Mutton & Everton, 2003). Because of the strength of these convictions, it makes sense to consult teachers when policy makers are devising lists of competencies for teachers. Unfortunately, this rarely occurs and policies about teachers, which have not been developed with them, often have little status within the profession.

The conviction with which teachers hold their beliefs is evidenced in the difficulties of programs that try to change teachers’ beliefs. Fullan (1993) contends that changing teachers’ beliefs is a difficult process that requires teachers to examine their core values and often unstated assumptions about teaching and learning. Various methods have been tried to influence teachers’ beliefs using different forms of evidence about teaching. One source of evidence that may influence teachers’ beliefs is from educational research that has been generated in other contexts. For instance, in the Reading Instruction Study (Richardson, 1994), formal knowledge about reading comprehension was introduced as evidence of good teaching practice by trained staff developers to elementary teachers in discussions about their beliefs. In another study, research on children’s thinking was introduced to science teachers in light of their discussions about teaching strategies that they subsequently experimented with in their practice (Bell & Gilbert, 1994).
Other studies have involved teachers generating their own evidence in their own school classrooms (Bickel & Hattrup, 1995; Mitchell & Erickson, 1995). For instance, Cochran-Smith and Lytle (1993) contend that university researchers should support teacher researchers to build their own knowledge with empirical research using journals, oral inquiries and classroom/school studies or conceptual research using essays which draw upon teachers’ experiences and assumptions that underpin their practice. Similar collaboration involving teachers and teacher educators has been conducted in Australia in the Project for Enhancing Effective Learning (PEEL) using collaborative action research as a methodology for classroom research (Baird, Mitchell & Northfield, 1987). The goal of the group was to generate teaching strategies to foster “good learning behaviours” in students and procedures to address their “poor learning tendencies” (Baird, Mitchell & Northfield, 1987; Baird & Northfield, 1992). Professional development schools also provide a range of ways in which teachers and teacher educators collaborate to collect and examine evidence about teaching practice. In such schools, Darling-Hammond (1994) reported that school-based interactions between teachers, teacher educators and novice teachers provide a variety of ways for teachers to construct knowledge:

- knowing through direct action and reflection, as well as by understanding and appreciating the findings of others,
- knowing through sharing different experiences with colleagues, and
- knowing through research conducted by teachers along with researchers that is informed by the diverse experiences of individual children as well as the aggregated outcomes codified in empirical studies. (Darling-Hammond, 1994, p. 16)

Because teachers’ beliefs about their practice are deeply held and display resistance to change, it makes sense to consult teachers about policy decisions especially in regard to what has been termed “teacher competencies”.

**My study: The survey**

The initial part of my PhD study involved developing a profile of primary classroom teachers who work with student teachers in practicum settings. I wanted to identify and acknowledge the beliefs and practices which they bring to their work in training pre-service teachers, in the hope that the opportunity to voice their beliefs would be heard by both faculties of education when they are planning their programs and by policy makers when they are reviewing and making recommendations.

The survey was divided into five sections:

- A: Teacher experience in hosting student teachers.
- B: Teacher beliefs about what student teachers “really need to know” to prepare them for life in the twenty-first century classroom.
- C: Teacher professional development related to their work with student teachers.
- D: Demographic information.
- E: Invitation for teachers to take part in further research aimed at improving the practicum and redefining the role of the classroom teacher in teacher education.

For the purpose of this conference and to investigate the sub theme “Pedagogical Spaces”, I will present the results from Section B: Teacher beliefs about what student
teachers ‘really need to know’ to prepare them for life in the twenty-first century classroom, which draws on the framework for desirable attributes of beginning teachers as stated in the MACQT Report, (1998).

Competencies related to the five elements of desirable attributes were simply worded and scattered throughout this 20 point questionnaire. However, prior to the survey being distributed to schools, individual questions were pre-coded for classifying (during data analysis) under the following competencies:

- Ethics of teaching
- Content of teaching
- Practice of teaching
- Interaction with families and the community
- Professionalism and professional development.

**Results**

179 teachers responded to the voluntary survey. Data marked with a double asterisk ** indicate that teachers gave a written response to substantiate their choice. Results for Section B are as follows:

**Table 1. Ethics of teaching**

<table>
<thead>
<tr>
<th>COMPETENCY</th>
<th>Extremely important</th>
<th>Moderately important</th>
<th>Important but not on prac.</th>
<th>Not Important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3. Demonstration of professional behaviour.</td>
<td>157</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Q8. Relationships with students, staff and parents.</td>
<td>110</td>
<td>63</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Q11. A love of children and teaching.</td>
<td>156</td>
<td>21</td>
<td>1</td>
<td>1**</td>
</tr>
<tr>
<td>Q12. An awareness that all children are individuals and learn differently.</td>
<td>154</td>
<td>23</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

**“You can be a good teacher without loving either kids or teaching. You just do your job to the best of your ability! I am so tired of people talking #*! * about loving it. Kids need to know that you are there to deal it out and keep the lid on. Not enough of them get that kind of discipline at home anymore.”**

**Table 2. The content of teaching**

<table>
<thead>
<tr>
<th>COMPETENCY</th>
<th>Extremely important</th>
<th>Moderately important</th>
<th>Important but not on prac.</th>
<th>Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. Lesson preparation.</td>
<td>165</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Q5. Assessing student progress.</td>
<td>76</td>
<td>82</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>Q9. Knowledge of the syllabus documents</td>
<td>70</td>
<td>93</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Q10. Knowledge of useful resources including ICT.</td>
<td>80</td>
<td>79</td>
<td>18</td>
<td>2**</td>
</tr>
<tr>
<td>Q18. Understanding of child development theory.</td>
<td>53</td>
<td>84</td>
<td>42</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 3. The practice of teaching

<table>
<thead>
<tr>
<th>COMPETENCY</th>
<th>Extremely important</th>
<th>Moderately important</th>
<th>Important but not on prac.</th>
<th>Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4. The ability to reflect on and amend practice.</td>
<td>152</td>
<td>27</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Q13. Flexibility</td>
<td>142</td>
<td>36</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 4. Interaction with families and the community

<table>
<thead>
<tr>
<th>COMPETENCY</th>
<th>Extremely important</th>
<th>Moderately important</th>
<th>Important but not on prac.</th>
<th>Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q15. Recognise and respect the part played by families and other professionals in the ‘whole’ education of the child.</td>
<td>102</td>
<td>70</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 5. Professionalism and professional development

<table>
<thead>
<tr>
<th>COMPETENCY</th>
<th>Extremely important</th>
<th>Moderately important</th>
<th>Important but not on prac.</th>
<th>Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q7. Classroom Organisation</td>
<td>132</td>
<td>40</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Q14. Mandatory and School Policies</td>
<td>46</td>
<td>100</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>Q16. Cross Curricula issues</td>
<td>12</td>
<td>106</td>
<td>61</td>
<td>0</td>
</tr>
<tr>
<td>Q17. Encourage improvement through professional development opportunities</td>
<td>77</td>
<td>57</td>
<td>45</td>
<td>0</td>
</tr>
<tr>
<td>Q19. Co-operation with other teachers to develop new ideas</td>
<td>90</td>
<td>71</td>
<td>18</td>
<td>0</td>
</tr>
</tbody>
</table>

Other competencies/issues

Question 20 encouraged teachers to list other areas of competency not included in the survey, which they wished to be considered. These included:

- Understanding the link between outcomes, assessment and purpose for teaching. (Content of Teaching)
- Continual self-evaluation. (Practice of Teaching)
- Accept constructive criticism and act on it. (Practice of Teaching)
- Enthusiasm and initiative. (Practice of Teaching)
- The ability to work and contribute fully as a member of a team and to realise that they (student teacher) will soon be the responsible adult in the classroom. (Practice of Teaching, Professionalism and Professional Development)
- Good standards of speech, grammar and spelling. (Practice of Teaching)
- Understanding of foundation handwriting. (Practice of Teaching)
- Willingness to participate in the “whole” life of the school e.g. – extra curricula duties – sport training, dance rehearsals. (Ethics of Teaching)
- See the single planned lesson as part of the ‘bigger picture’. (Practice of Teaching)

Teachers commented on several other issues, which I considered to be covered in the broader interpretations of questions 1-19 of the survey, e.g. “understanding that at all
times they are a role model and their behaviour should reflect this” was interpreted under question 3: Demonstration of professional behaviour.

Discussion and conclusion

In the fixed response section of the survey (Q 1-19), as a group, teachers felt more strongly about the importance of attributes 1-4 than they did about attribute 5. *Professionalism and Professional Development* (attribute 5), drew the most mediocre response with higher numbers of participants voting in the middle range for all responses. Thus, indicating that, in the opinion of the teacher, it was less important for beginning teachers to have knowledge and experience in this area than in the other competencies. It is unsure without conducting interviews whether teachers view their own professional development opportunities as limited or they do not value this aspect as much as the other competencies. This response, does however, reflects Vinson’s (2002) report on teachers’ views of professional development opportunities. Vinson found that teachers expressed concern not only about the limited breadth of educational opportunities afforded by professional development programs but also their unreliability.

Many principals, executive and classroom teachers spoke of the process of transmission of information from the “trained” teacher to colleagues as being quite unsatisfactory. They compared the accumulated distortions in the message transmitted to Chinese whispers. (Vinson, 2002, p.2)

It is timely that teachers have commented on the quality of their professional development opportunities as these are in a transition phase at the moment. For the last 10 years, most professional development opportunities have been limited to brief after school workshops with little sustained engagement. This year in NSW, government schools have had a significant increase in professional development funding. Professional development programs are usually effective when they are contextual and focus on the inquiry base of the individuals concerned, rather than the one off, generic training based models traditionally planned and implemented by experts for their school based colleagues (Clarke, 2002; Peters, 2002). Munby and Russell (1994) in Loughran and Russell (1997) suggest that:

> Teachers have reservations about the nature and quality of their own knowledge, experience and capacity to shape educational improvement. Teacher education may make its greatest contribution by enhancing the way teachers value their own knowledge generation and dissemination. (p. 48)

In the open-ended question (Q. 20), of the nine issues tabled, seven commented on the importance of competencies related to *The Practice of Teaching* (Attribute 2), representing 78% of the participant response. This reinforces the view that teachers value classroom practice as the real source of learning about teaching. Interestingly, none of the teachers focused on a need for more theoretical aspects of teaching that can be gained from university courses.

The data presented in this paper suggests that the views which teachers hold about ‘what really matter’ in teacher competencies, differ in some regards to policymakers’ views as to what teachers ‘really need to know.’ The consequence is that any amount
of handed down policy is likely to have little impact, unless it is classroom-based, focusing on the current needs (inquiry base) of individual teachers, created and implemented with and for classroom teachers.

References
Clarke, A. (2002). The characteristics of cooperating teachers. Unpublished paper received through mail correspondence with the author.
Heteroglossic spaces: Interrogating academic literacies in teacher education

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Faculty of Education, Monash University

This paper explores the challenges of implementing critical writing pedagogy in conditions of increasing cultural and textual uniformity of literacy and emphasises the need for a pedagogy that takes into account the heteroglossic nature of writing space and its relation to the multiple textual practices of students. In practical terms, we argue for such literacy practices in teacher education that would require students not only to understand the complexities of language and literacy but to actively engage them in a diverse range of textual practices that would both stretch their repertoires as language users and sensitise them to the cultural-semiotic diversity of contemporary classrooms. This task becomes more urgent in the current era of standards, accountability and classroom pedagogies that are not attuned to the particularities of students’ textual practices and the communication networks in which they participate.

The following paper asks how teacher educators can enable their students to engage in social critique within institutional settings that are increasingly shaped by managerial controls and other globalising pressures. Most academics can tell stories about the ways in which managerialist mechanisms have displaced traditional notions of a scholarly community. Often these stories are imbued with nostalgia, and yet there seems little doubt that managerialist language and practices are affecting the way we understand our work, and that students encounter a fundamentally different environment from that which most of us experienced when we began tertiary study (cf. Reid, 1996). We harbour no warm sentiments about the academy prior to the restructuring of the tertiary sector that has occurred in Australia in recent years, but nor can we accept the terms in which continuing reform of tertiary education has been justified both by Labor and Liberal governments during that period. Although advocates of such changes may say that these reforms quite properly reflect the need for greater accountability, the idea of ‘accountability’ is not innocently grounded in some generally accepted notion of the public good. We are experiencing the marketisation of higher education, involving the recasting of the university (and public education in general) as a space for the operation of free market forces (cf. Marginson, 1993). Our concern with heteroglossic spaces conflicts with the way this discourse of accountability and competitiveness is reshaping teacher education. For one way of resisting this discourse is to develop a pedagogy that connects a critical exploration of the social-discursive aspects of education with the transformation of local learning environments. We need to make links between the broader project of critical pedagogy and the idea of heteroglossic spaces, thereby enabling our students to engage in critical reflection and transformative action upon their own ‘situationality’ (Freire, 1995).
Our interest in the category of space is informed by broader developments in sociocultural studies which endeavour to describe and critically analyse complex relations between socio-cultural practices and the construction of spatial meanings. According to Lefebvre (1991, p. 191), these social-spatial relations can be conceptualised as simultaneously ‘a field of action and a basis for action’. That is to say, space might be understood as a set of spatial-semiotic practices in which material and symbolic settings are both constructed and re-presented. Different spatial-semiotic practices produce different ‘frameworks of spatialities’ - social institutions with their particular spatial politics and cultural meanings. Such spatialised institutions may range from sites of administration and surveillance, control and punishment to sites of public and private education and mundane places of everyday social life. But, as Harvey (1996) points out, space is not an isolated and bounded entity; it is a site of relations to other spaces and, therefore, the material-semiotic configuration of any place acquires meaning only when this involves a re-presentation of ‘the other’ or another place. The spatial dimension of teacher education acquires then a particular significance because teacher educators and their students need to understand both the situated nature of professional learning and its relationship to other places and their spatial-semiotic practices and politics. What are the larger spaces in which local institutions operate? What spatial-semiotic practices shape local institutional settings? What kinds of representations of professional practice do such practices put into currency? What counts as the necessary professional knowledge for beginning teachers to operate across diverse pedagogical spaces?

Thinking space in teacher education

One starting point for developing a socially critical pedagogy is to reconceptualise teacher education from a spatial perspective. Castells’ (1996) analysis of the relationship between the ‘space of places’ and the ‘space of flows’ is especially helpful to describe the tensions between the global and local or situated processes, enabling us to understand the construction of pre-service teacher identities, professional learning and knowing in spatio-discursive terms. According to Castells this kind of tension between the local and the global is the hallmark of new times. While the space of places is about local material-semiotic representations and social configurations of different places, including people’s actions and the situated production of meanings, the space of flows is about global processes through which power is organised in the broader society, always threatening to dominate and alter the meaning and dynamic of local places. As a result of the simultaneous functioning of these two processes, according to Castells (ibid, p. 428), ‘experience, by being related to places, becomes abstracted from power, and meaning is increasingly separated from knowledge’. In similar terms, Soja (1989) argues that space can hide consequences from us, inscribing relations of power, discipline and control into the seemingly ‘innocent’ spatiality of everyday life. If we now turn to the spatiality of teacher education, we might argue that institutional practices are shaped by the flow of broader (global or national) policies that represent teacher identities and professional knowledge in an abstract and normative way, thereby demanding the construction of pedagogical spaces of a certain kind and governing them through mundane mechanisms of administrative control and evaluation. We might think, for example, of the inauguration of decontextualised teacher professionalism and other
top-down reforms inevitably have a decisive impact on the configuration of local pedagogical spaces.

The local production of teacher education spatiality cannot avoid using building materials from policy documents and broader managerial discourse that are produced by power apparatuses seeking to provide a particular vision of teaching and learning. As Edwards and Usher (2000, p. 4) point out, this vision is often constructed and cast in economic terms, with educational institutions being required to work in ‘more commercial and market-like ways’. This means a more direct control over curriculum content and performance measures, normative allocation of resources, emphasis on standards, increasing tuition fees and reducing education costs. As a result of such a regulation and configuration of pedagogical space we are increasingly expected to justify our work as a matter of ‘inputs’ and ‘outputs’, as ‘value adding’, and to fix a dollar value to everything we do. We specify ‘unit objectives’ without regard to differences between the intended curriculum and the enacted one or the possibilities that might be opened up by conversation and negotiation with our students; and we implement ‘unit evaluations’ that are little more than surveys of customer satisfaction. We position our students as individuals who are competing with one another to obtain the necessary knowledge and skills to participate in the economy, not as citizens who might engage in free and open debate about existing society and current social and economic trends.

This suggests the importance of critical reflection on our situationality and the possibilities of its re-construction by using building material from other real and imagined spaces, whether they be a neighbourhood school, an informal educational setting, an alternative discourse about education, local socio-cultural communities and their ‘funds of knowledge’ or collective and personal memories. The spatial location of social action, according to Castells (1997), involves the work of identification at different spatial and temporal scales, and this implies recognition that we are all members of ‘network society’ who reconstruct spatial fixities and transcend singular identities on the basis of multiple social identifications and participation in practices of different communities. For instance, we need only walk across the campus at lunchtime to become conscious of the ways students are operating within other spaces, even as they physically occupy the spaces provided for them by the university. Just about every second person is engaged in loud conversation over their mobile phones or preoccupied with text messaging. They appreciate the opportunity to meet and converse with one another outside class, sharing coffee while collectively poring over the readings in their unit guides or texts and using highlighters to colour code important sentences or paragraphs. These practices provide merely one example of how students knowingly operate within the context of networks or relationships that extend beyond the local space defined by the university classroom and the forms of subjectivity available to them within that space. Taking into account the different forms of spatial mobility is an important part of a sociological understanding of space as a site in which other spaces are co-present as well as a site where a range of social networks and semiotic flows intersect.

Hence, while a managerial approach to teacher education is a way of controlling pedagogical space and social diversity, multiliteracies and multicultures of students
and teachers – Luke (2003, p. 132) refers to the ‘strange textual monocultures that we call bureaucracies’ – it is also possible to understand pedagogical space in terms of spatial mobility and fast flowing networks. This is less a matter of enacting material changes than consciously constructing sociocultural bridges between multiple discourses and spaces that coexist within the same physical place, making officially conceived pedagogical space not only ‘relational’ but also ‘reinhabited’ through its critical transformation (Gruenewald, 2003; McGregor, 2003). Unless this is done we may be operating in parallel socio-spatial dimensions – one is institutionally imagined bounded space and the other is a space of social networks.

The idea of bringing these spaces together has been a key motivation of our research project. Its main concern has been the construction of a pedagogical hyperspace that enables our students to reflect on the different places they have inhabited and are inhabiting. Conceiving professional learning in terms of the co-presence of different sociocultural spaces can be a vehicle for implementing critical pedagogy in teacher education. Because our unit deals with the fundamental issues of literacy pedagogy across the curriculum, we believe that promoting a critical awareness of situated literacy practices is central both for re-considering what counts as literacy in social and political terms and for re-reading the wor(l)d as part of transformative literacy pedagogy in secondary schools.

Narrating ‘heteroglossic’ space in unit EDF 3004

Whatever pretences policy-makers might have about education in new times – new sociocultural and economic conditions in society – pedagogical solutions in teacher education are very much those of old times. The discourse of managerial professionalism is now entrenched in teacher education to the point where students’ professional learning is totalised by the influence of outcomes ideology (Sachs, 2001). The idea of universalistic standards is written into the very definition of ‘the teacher’ as a professional who delivers education, trivialising the professional learning of pre-service teachers as a matter of acquiring the ‘basic knowledge’ needed for such a service delivery (see Doecke & Kostogriz (2003) for a critique of the Victorian Institute of Teaching (VIT) guidelines for graduates of Education Faculties). Our research project is a response to such a managerial approach, most notably its narrow view of literacy as developing basic skills in English and a professional culture of universalistic standards in ‘delivering’ literacy skills. Through our research project we hope to capture the contradictions and complexities of our work as teacher educators as we attempt to make ‘critical movements’ across the spatial-discursive sites that our EDF 3004 students occupy and encourage them to become reflexive about their own values and beliefs.

Language and Literacy in Secondary School is a third year core unit that forms part of a Double Degree Program jointly run by the Faculty of Education in partnership with other Faculties at our University. The ‘objectives’ of EDF 3004 include developing ‘an understanding of the role that language plays in learning’ and ‘the relationship between language and cultural identity’, along with several others. These objectives are broader than those specified by the VIT and incorporate an understanding of literacy as social practice and language as a sociocultural tool that mediates all social
activity. Key readings for this unit include essays by Shirley Brice Heath, M.A.K. Halliday, James Gee and other seminal papers in the area of a sociocultural approach to language and literacy. We therefore expect our students to develop a larger understanding of literacy than narrow psychologistic notions of learning how to read and write, inviting them to consider the way literate practices – including their own – are grounded in specific sociocultural discourses and spaces that include some people while excluding others. However, we are not about to recount an heroic tale of our adventures in cultivating an understanding of the complexities of language and literacy in our students. Rather, we are exploring the challenges of implementing a critical writing pedagogy that promotes the heteroglossic nature of writing space vis-à-vis increasing cultural and textual uniformity of literacy both within schools and universities. We are arguing the value of requiring our students to actively engage in a diverse range of textual practices that stretch their repertoires as language users and sensitise them to cultural-semiotic diversity in contemporary classrooms without making any grand claims about our success in promoting a critical language awareness that they can sustain when they join the teaching profession (even though we hope sincerely that some of them will).

In this regard, the aim of EDF 3004 is to sensitise students to the interface between school literacy practices and the cultural practices in which adolescents engage outside school by inviting them to reflect on their own experience of this spatial interface. Amongst other things, this means encouraging them to use genres that contrast with those typically associated with certain disciplinary areas at university level (e.g. the ‘essay’ in Sociology or the lab report in Biology – see Richardson, 2004). Their first assignment for EDF 3004 is a ‘critical narrative’ in which they tell stories about their early experiences of literacy, an exercise which many find daunting, as their university education has given them little or no opportunity to do writing of this kind. As one student remarks in her reflections in conclusion to her narrative:

I found it really hard to come up with something that resembled a narrative. For the past two years at university we have been told time and time again to write academic essays that usually aren’t what you want to write about or say, but rather what someone else wants to hear. The creative process has not been regarded as something important, which is sad yet painfully true, and it took quite a while to slip into thinking about something that had influenced me and then to write about it. Hopefully I have achieved this – I am proud of the story that I have written and it was one of those special moments in life for some reason you don’t forget the memory or the little details embedded in it.

For nearly everyone, the last time they wrote a story was when they were in secondary school, and even there the opportunities for ‘creative writing’ or writing folio work have become severely limited with an increasing emphasis on the literary essay as the privileged form for demonstrating literacy abilities (cf. Teese, 2000).

The prompt for writing narratives about their early experiences of literacy is Shirley Brice Heath’s article ‘What No Bedtime Story Means’ in which she describes textual practices in different socio-economic communities and, in turn, differences in the ways young children are socialised to language and literacy. This article proves challenging for students, and many initially feel defensive about what they sense to be their ‘Maintown’ or middle-class upbringings in comparison with the experience of
growing up in working-class ‘Roadville’ or socially disadvantaged ‘Trackton’. In this respect, Heath’s essay itself poses difficulties, since by positing ‘Maintown’, ‘Roadville’ and ‘Trackton’ as three distinct locales in which children experience literacy events in essentially different ways, she diminishes any sense of how these communities form part of a social structure and a set of relationships in which everyone is implicated (cf. Rosen, 1985). She thereby evades the challenge of thinking in a ‘fully relational’ way (Frow, 1996), stepping back from conceptualising the ‘disadvantage’ of one community as a function of the ‘advantaging’ of another (cf. Connell, White & Johnston, 1990) or questioning why one set of literacy practices should be privileged over another. Many students sense the essentialising nature of Heath’s categories:

After reading Heath’s article, I actually felt quite irate, as if my experience was almost disqualified as something valid. While I know that these were convenient theoretical categories set up by Heath for assistance in her research, I could not help but feel that they would be inadequate to understand the experiences of most people. However, almost all of the classmates I spoke to maintained that their literacy events mapped closely with those of Maintown children (see Heath, 1982, pp.52-57). While this made me feel quite isolated, I believe that my mixed experiences of oral stories, songs, body language, nursery rhymes, fairy tales and books prepared me much better (for life, if not schooling) than the quite formal introduction to reading that seems to have taken place in many of my peers’ lives. I almost feel as if I’ve been blessed with the exposure to imagination and wordplay of Trackton, while still gaining the more formal syntactic and vocabulary skills of Maintown and Roadville.

Even this student’s reflection conveys a certain fetishisation of Heath’s categories, despite the critical stance she takes towards the consensus her peers have reached about their ‘Maintown’ upbringing. As for this student’s peers, although by identifying with ‘Maintown’, many begin to recognise the socio-cultural and spatial grounding of their education, they initially tend to see communities that do not engage in ‘Maintown’ literacy practices as inferior. As one student remarks, ‘I was surprised when I read about the children from Roadville and Trackton, because I had never experienced anything less than the Maintown norm, and found it difficult to assume that any child would have had less of an opportunity to read at home’.

Their narratives often convey a more critical edge on their literacy experiences than their reflections in conclusion, which usually betray a struggle to understand the experiences they describe within the analytical frameworks we present to them. Given that they are writing their narratives at the beginning of the semester, it is probably unreasonable to expect any more from them. They have started on an intellectual journey that will eventually include reading James Gee’s arguments about the need to reconceptualise literacy as Discourse (Gee, 1991). By the end of the semester, they revisit Heath’s essays and endeavour to make connections between her arguments and those of James Gee, in a piece of writing that is more akin to an academic essay than anything else they have produced during the semester, when they typically register a gain in their understanding of literacy as being much more than reading and writing (cf. Doecke & Kostogriz, 2003).

The best narratives (in class we often refer to them as their own ‘bedtime stories’) usually involve vivid evocations of places from their pasts that contrast with their present circumstances. These spatial perspectives on literacy practices include stories
of physical movement through time and place, diverse accounts of boundaries between family practices and schooled practices, and metaphorical and literal references to journeys, pathways and trajectories. Writing such narratives becomes more than reconstructing moments from the past, but, as Deleuze and Guattari (1988) put it, it resembles a process of ‘surveying’ and ‘mapping’ in which students inadvertently conceptualise spaces by choosing certain language to tell stories about their early literacy experiences. Some students, however, consciously seem to map sociocultural spaces to help them remember and reconstruct almost forgotten events. One student provides the following justification for her approach at the start of her piece:

When trying to remember literacy experiences from my childhood I was drawing a blank. My parents are both lovers of books, so I was surrounded by books and literature from a very young age. But I could not think of any literary event in particular. So I tried another tack. I began thinking of things I did and places I went as a child, hoping that I would get inspiration and the literacy events would come flowing out. Funnily enough, they did.

The narrative that follows consists of a series of tableaux, all relating to annual visits to Wilsons Promontory as a child, including ‘the dusty road that was the start of the Millers Landing walk’ when she discovers a wallaby paw print that matches the image on the information sheet provided for walkers, and repeated visits to the museum: ‘For many, many years the museum never changed. Yet we would still visit it once a year and read the stories of Aborigines at Cotter’s Beach and how the early settlers built the Chalet at Derby River’.

Another student reflects on her upbringing in Belgium and her first day at school:

‘You cannot send this child to a French school. She does not speak French,’ I heard my grandmother argue with my mother. ‘How do you expect her to cope with a foreign language on her first day of school? Just why do you even consider sending her to the only French school in Antwerp? She’ll feel out of place amongst those children of diplomats and old circles of nobility. You know how attitudes are changing here in Belgium. There is no need to speak French anymore.’

I was sent to Marie-Josée College anyway and for my first day of school I can say I was in total ignorance. I had no comprehension at all of what was said around me. The massive building opened up its solid green gates and my mother wished me a good day, leaving me there on my lonesome, since she was not allowed to go any further. As I walked the long corridor which led to the main double door at the top of a few marble steps, my heart sank; a world of oblivion had surrounded me. Kids were running and playing in the courtyard and they all spoke French, a language I did not know.

Rather than simply illustrating aspects of a ‘Maintown’ or ‘Roadville’ or ‘Trackton’ upbringing, such stories are interesting because the detail they contain seems irreducible, gesturing towards spaces of experience that are richer than any conceptual framework that might be brought to an analysis of them. This is not to suggest that we can therefore be excused from attempting to understand those experiences, as though ‘narrative inquiry’ consists merely in sharing stories and taking our place around some great collective campfire (cf. Connelly & Clandinin, 2000; Doecke, 2001). By reading about such experiences, we are confronted by difference as much as things we hold in common, by enduring mysteries as much as moments of clarification, by questions as much as explanations. We are reminded of the way Marx posed the great
paradox of education, when he noted that any project for social emancipation must confront the fact that educators must themselves be educated (Marx, 1969). It is not drawing too long a bow to say that by writing such narratives our students are obliged to exercise a degree of reflexivity with respect to their upbringing, and the values and beliefs that have shaped their lives, something that they have seldom been required to do in the course of their university studies.

**Toward a transformative pedagogy of space**

From our analysis of students’ narratives, the possibility of transcending the managerial or decontextualised construction of learning environments hinges on perceiving how the spatiality of social life is played out in a dialectical tension between the material-symbolic configuration of teacher education by bureaucracy and the multiplex spatiality of students’ social and textual experiences. As Gruenewald (2003, p. 8) argues, ‘in place of actual experience with phenomenal world, educators are handed, and largely accept, the mandates of a standardized, “placeless” curriculum’. In our case, this translates into the imposition of ‘decontextualised’ literacy as a professional attribute of secondary school teacher. Therefore, recognising this debilitating spatial (or ‘spaceless’) politics in teacher education, we are trying collectively to re-design curriculum. It should be geared toward exploring different spaces of textual practices, thereby expanding the possibilities of professional learning outward (e.g. by focusing on textual practices of home, school and community). Implementing this curriculum requires a recognition of the pedagogical space in teacher education as multiple and relational.

This presents certain challenges both for our students and us because the flow of different spaces through our pedagogical space is not something natural and unproblematic, but instead involves relations of power. If the dominant discourse of teacher professionalism evacuates knowledge of local (or situated) literacy practices from the official curriculum, it is not easy to treat them as fully relational to schooled literacy. As Frow (1995) observes:

> There is no escape from the discourse of value, and no escape from the pressure and indeed the obligation to treat the world as though it were fully relational, fully interconnected. But what becomes entirely problematical is just the possibility of relation: that is, of critical movement across the spaces between incommensurate evaluative regimes… (Frow, 1995, p. 134)

Frow is primarily concerned to argue the possibility of universities providing sites for interrogating ‘regimes of value’, thereby reaffirming the possibility of social critique within the spatial-discursive politics of institutional settings that are shaped largely by managerial controls and other external pressures. In this regard, our possibilities are both enabled and constrained by the very quality of spatiality that we appropriate and enact to give meaning to pedagogical space. While the dominant discursive presentation of this space provides a regulatory power for the use of ‘appropriate’ practices and recourses that are permeated through and through with dominant knowledge and ideology, the potential of re-presenting teacher education space differently will depend on the possibilities of critiquing the dominant knowledge and ideology. This critique can be conducted by a ‘knowledge class’ (Frow, 1995) or
‘transformative intellectuals’ (Giroux, 1988) that might confront the question of its own right to speak about social ills, to formulate values and to engage in praxis that might challenge the status quo.

We are stretching Frow’s point here, extending his argument into spheres that he does not investigate. Nonetheless, his efforts to re-conceptualise the role that a ‘knowledge class’ might play within existing (postmodern) society are surely relevant to our efforts as teacher educators to develop a transformative pedagogy that might enable our students to engage in a critique of existing social relations rather than seeing themselves as merely functionaries of a system that is reproducing itself. Given the complexity of transforming pedagogical spaces, especially in the era of managerial control over knowledge production, we need to reconsider what counts as ‘knowledge’ in the concept of ‘knowledge class’, starting from questioning the ‘truth’. For us, then, critical pedagogy begins from recognition that our students are situated in a sociocultural world and therefore find themselves in spatial-discursive conditions that position them differentially with regard to the official representation of their professional knowledge as comprehensible, continuous and linear. By encouraging students to connect their learning to other spaces of textual and literate practices and to reflect on their situationality, we can open doors to other kinds of knowledge(s).

This means inviting everyone who is involved in teaching (both teacher educators and teachers) to grapple with dimensions of experience beyond the sanitised accounts of professional knowledge and practice that are currently being used by governments to control both school and university classrooms.

However, a transformation of pedagogical space involves more than consciousness raising and building knowledge(s) through reflection. Such a transformation also means sharing our efforts and acting on our situationality. In order to change our relation to pedagogical spaces and ‘reinhabit’ them, we need to bring sociocultural spaces into our classroom practice to unsettle what is ‘within’ a pedagogical space, to question our literacy experiences and, in turn, to challenge the objectivity of professional knowledge. We need to bring in heteroglossia, multiple literacies and, in general, the cacophony of our social lives to learn to perceive how relations of knowledge and power are inscribed in pedagogical spaces and how we might construct different spaces in education – spaces that are not only attuned to the literacy practices of students but also to the socially critical project of ameliorating educational disadvantage, in all its forms, and to the active promotion of social justice in and through education. Different pedagogical space is needed not only to teach and learn differently but also to open up new meaning-making possibilities and, consequently, new possibilities with regard to social transformation and change.

References


Student teachers reflecting through problem-based scenarios

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Problem-based learning (PBL) has been widely used as a constructivist methodology in health care education but there are fewer examples of its use in teacher education (McPhee, 2002). In 2004 a team of lecturers from the University of South Australia trialled the use of problem-based scenarios as the primary methodology in a practicum related course undertaken by students in the final semester of the graduate entry Bachelor of Education. This paper details my interpretation and implementation of problem-based scenarios as a vehicle for student teacher reflection within this course. It also depicts my students’ responses to the trial and some emerging issues and recommendations. The findings suggest that PBL has the potential to make a difference to students’ construction of personal meaning and practical, theoretical and ethical levels of reflection.

For the past two decades the challenges faced by many teacher educators in Australia and overseas have included creating pedagogical spaces that develop their students’ reflective capabilities (Dobbins, 1994) and model a constructivist orientation to teaching and learning (Richardson, 1999). At the University of South Australia my colleagues and I have been striving to meet the first of these challenges by developing practices that foster student teachers’ abilities to reflect on their actions, the reasons for their action and the ethical implications of their actions in terms of who is advantaged and disadvantaged (Van Manen, 1977). Addressing the second challenge has also become a priority for South Australian teacher educators because constructivist principles underpin the new South Australian Curriculum Standards and Accountability (SACSA) Framework, which will govern curriculum development and implementation in government schools for the foreseeable future (DETE, 2001).

Problem-based learning (PBL) is a methodology that appears to be congruent with some principles of both constructivism and reflective practice. It is described as “focussed, experimentally based learning that is organized around the presentation, investigation and resolution of a ‘messy, real-world’ problem” (Murray-Harvey & Slee, 2000, p. 1). It aligns with constructivist learning principles in that it is student-centred, open-ended, integrated and involves students in the active construction of knowledge (Wee King Neo, 2004, p. 15). It is also claimed that to effectively engage with problems students need to develop and use reflective processes:

During post problem reflection, students deliberately reflect on the problem to abstract the lessons learned…. This reflection allows them to make generalizations and to understand when this knowledge can be applied (Salomon & Perkins, 1989). (Hmelo & Evensen, 2000, pp. 3-4)
It is these characteristics of PBL that suggest it has the potential to make a valuable contribution to teacher education pedagogy. It has been widely used in health care education (see for example, Lloyd, 1999, cited in McPhee, 2002) and examples can also be found in the literature about professions as diverse as architecture, mechanical engineering, law (Boud and Feletti, 1991), social work and psychology (Beveridge and Archer, 2002). Recent years have seen the emergence of its use in teacher education overseas (see for example, Peterson, 1993; McPhee, 2002) and in Australia (see for example, Kiggins, 2002; Green, Randall & Francis, 2002; Murray-Harvey & Slee, 2000). Such studies have produced claims that PBL: develops student responsibility for learning (Dutch, 1995, cited in Kiggins, 2002); facilitates professional dialogue, creates a student-centred learning environment, connects theory and practice and promotes students’ ability to think critically (Murray-Harvey & Slee, 2000); and develops in students “a deep sense and understanding of schools, classroom work, and the multiple roles of a teacher” (Kiggins, 2002, p. 6). These findings suggest that PBL is a pedagogy that warrants further investigation by teacher educators. The study reported in this paper adds to the growing literature by exploring the extent to which PBL made a difference to my students’ construction of personal meaning and practical, theoretical and ethical levels of reflection.

Background

For a number of years I have been a member of a team of lecturers from the University of South Australia who teach in the course Reflective Practice 3 in the final semester of the graduate entry Bachelor of Education. Students in this program have a first degree and complete two years of course work over eighteen months in order to qualify with a Bachelor of Education (Specialisation). They specialise in early childhood, junior primary/primary, secondary or adult education. I coordinate the course at the Magill Campus and work with two workshop groups (approximately 25 students in each) that comprise a mixture of students from the junior primary/primary and secondary specialisations. The on-campus component consists of an introductory day before the semester begins, weekly two-hour workshops over the first six weeks of semester, an eight-week practicum and a follow-up debriefing session. Our main objective in this course is to develop students’ abilities to reflect on their teaching in terms of their actions, practical and theoretical reasons for actions and ethical justification for actions (based on Handaf’s model, 1990, cited in Day, 1993).

The introductory day and on-campus workshops focus on the topics of: 1) negotiating the practicum; 2) valuing difference; 3) engaging students in learning; 4) managing the learning environment; 5) planning and programming; and 6) assessment and reporting. Previously we used an approach in which small groups of students developed and implemented a presentation and workshop processes around one of the key topics, followed by a reflective summary about their decision-making processes, evaluation of the session and learning. Although this worked well in many ways, student evaluations and our own observations alerted us to three main problems with this approach: 1) despite explicit explanation and modelling of student centred approaches, there were always some groups who used a great deal of exposition as part of their presentations; 2) students often revisited material from the previous
year’s courses and so some presentations were seen as involving unnecessary repetition; and 3) the presentations tended to focus on practical reflection to the exclusion of theoretical and ethical reflection. The course evaluations in 2003 highlighted these problems to such an extent that we were keen to make some changes in our approach. Towards the end of 2003 a seminar by a visiting scholar, Alistair McPhee, about the use of problem-based scenarios within teacher education courses at the University of Glasgow, suggested a change in pedagogy that seemed to have the potential to overcome the problems that had emerged in our course. Having read further about the approach, we determined to trial the use of problem-based scenarios in Reflective Practice 3 in the first semester of 2004.

**Method**

Out-lining the method for this study involves detailing the processes that were used to interpret and trial the new pedagogy of problem-based learning, as well as the ways that data were collected about participants’ responses.

*Interpreting and trialling problem-based learning with two workshop groups*

We decided to keep the frame-work of topics for the course but ask each small group of students to develop a problem-based scenario related to a particular topic and plan and facilitate the workshop processes through which it would be considered. Having presented their scenario, the group would then collaborate on a reflective written summary. These components would make up their on-campus assessment task.

We based our interpretation of problem-based scenarios on the model reported by McPhee (2002), in which a detailed scenario is developed about a teaching based problem, but is supported by a range of additional information presenting the views of stakeholders associated with the problem. In this model students are required to access set readings about the topic before they begin to analyse a specific scenario. We felt that students would be better able to meet these expectations if, in the first instance, the teaching team modelled scenario and workshop development and gave them explicit guidelines. We identified the topic “Negotiating the Practicum” as one which would be appropriate for this purpose. I volunteered to develop a scenario, support materials and workshop processes to use with our workshops groups on the introductory day, as well as a set of guidelines to support students in developing their own scenarios.

After further reading about problem-based scenarios I found a web-based framework for writing scenarios based on the three key attributes of “relevancy”, “coverage” and “complexity” (Creating an Appropriate Problem, 2003). I used these three descriptors as the framework for the guidelines I developed but I interpreted them differently to fit with the course’s objectives. To briefly summarise, I interpreted “relevancy” as scenarios related to realistic teaching-based experiences and issues, “coverage” as the inclusion of practical, theoretical and ethical issues and “complexity” as representation of the multiple viewpoints and interests of stakeholders.
My next challenge was to develop a scenario, support materials and workshop processes to introduce students to the methodology of problem-based learning. I brainstormed a range of issues that have challenged student teachers, mentors, site practicum coordinators and university liaisons in the past. I wove these into a scenario that featured these stake-holders confronting the problem of a student teacher who was perceived to be “at risk” at the mid point of the practicum. To support the scenario and provide some insights into the multiple viewpoints of participants, I also developed these fictional support materials:

- an unsatisfactory interim report on the student teacher’s development;
- an “at risk” form (which is completed whenever student teachers are perceived to be at risk of failing a practicum);
- the university liaison’s observation notes on one of the student teacher’s lessons;
- emails between the university liaison and the site practicum coordinator; and
- an excerpt from the student teacher’s personal journal.

Having received the scenario and recommended reading via email, students were asked to come to the introductory day prepared to address four questions about: 1) the practical, theoretical and ethical issues faced by each stake-holder; 2) the extent to which stakeholders were advantaged and disadvantaged; 3) strategies for achieving the best outcomes for all stake-holders; and 4) links to the set reading.

In the workshop component of the introductory day I worked with both my groups (fifty students) simultaneously to introduce and model my version of problem-based learning using the materials I had developed. I divided the students into stakeholder groups to address the four questions, and then used a “jigsaw” process to create groups for sharing the responses of all five stakeholders. The seventy minutes allocated flew by and I have rarely seen students involved in such animated discussion throughout a session.

Towards the end of the workshop students self selected into five groups. Each group chose one of the five topics on which to base a collaboratively developed scenario, support materials and processes for a seventy minute presentation in one of the remaining six workshops. (The rest of the time in each two-hour workshop was to be quarantined for sharing ideas, concerns and issues related to their ongoing work in preparing for the practicum). Each group was asked to email their scenario, any support materials that were available electronically (the rest to be given out on the day) and focus questions (which were to include the four standard questions plus two specific to the topic) to me for circulation a week before the scheduled workshop. Another member of the teaching team identified two to three readings related to each topic and these were posted on the course home page. Students were asked to have read at least one before they attended the workshop on that topic.

**Data collection**

Data collected about the interpretation and trialling of this approach comprised:

- my observations during the trial;
- documentation in the form of scenarios, support materials, written guide-lines and students’ written summaries;
• written feedback collected from each group following the workshop component of the introductory day; and
• written feedback collected from individuals in the final workshop before students started their practicum.

Results: Developing and engaging with problem-based scenarios

Students’ written feedback after the introductory day confirmed my perception that they had found it highly engaging and productive. Comments focussed on the relevance of the scenario to their experiences and needs and the value of considering different perspectives and “win-win” strategies. They also reported new insights about issues such as “power discrepancies”, “the need for open communication”, “diplomacy”, “the building of inter-relationships”, “confronting problems early”, the use of the “at risk” form and the role of the university liaison.

During the first six weeks of the semester all groups met the expectation of circulating their scenarios to participants well before their designated workshop. Some also circulated a range of support materials representing the different viewpoints of stakeholders, while others gave them out on the day. There was some variation in the quality of scenarios and support materials, ranging from satisfactory through to outstanding, but all were focussed on relevant problems and required participants to engage with practical, theoretical and ethical issues. These included issues around sexuality, special needs, harassment, relationships between stakeholders, students struggling with personal crises such as pregnancy and abuse, multiple intelligences, cultural imperialism and hegemonic educational practices.

The workshop processes designed by each group were varied and included different forms of small and large group discussions and reporting, brief, focussed exposition, games, role plays and demonstrations. Notable features were their focus on student-centric learning and engagement, the support and challenge provided by members of the presenting group, the links made by the presenters to relevant literature and their use of time-efficient and productive strategies for sharing.

During the large portion of the workshop that was facilitated by the students, I took the role of participant while also taking notes to inform my written feedback in response to their written summary. Although I tried to question and contribute in ways that fostered students’ critical reflection, I could only do this with some students, depending on which groups I joined. I had the chance to question and comment in whole group discussions, but was acutely aware that each time I spoke it reduced the time for students’ contributions. For that reason I tended to only intervene where I felt there was a genuine need.

The written summaries submitted by each group, in which they reflected on their decision-making, evaluated participants’ involvement and reflected on their own learning, all had examples of reflection at the practical, theoretical and ethical levels. The following excerpts provide examples of reflection on theoretical and ethical issues:
It is, however, the received tradition of Western European streams of thought and cultural practice that correlates most strongly with what most Australians recall when the word ‘education’ is invoked. One point that can be raised regarding this is whether or not the diverse cultural inheritances of other groups are recognised and valued in the Australian education system.

Ethical issues were raised such as whether it is fair to focus so much on those students who are different at the perceived expense of the other students. The class debated this and it was felt that a teacher needs to cater for each child’s needs using a constructivist philosophy.

Assessment is at the heart of the learning process. It transmits to students what is valued in terms of learning and what is not.

Learning environments are constructed around values that favour some students and not others.

After the final workshop all students were asked to respond to a brief evaluation of “learning through problem-based scenarios” in which they gave an overall judgment of “very useful”, “useful” or “not very useful”, and commented on the most and least useful aspects and ways of improving the approach. Approximately 80% of students responded that they had found the approach “very useful” (25%) or “useful” (55%), citing aspects such as addressing “issues relevant to beginning teachers”, the “rich discussion” and “seeing the problem from different people’s points of view, and various solutions”. One student who rated the process as “very useful” related his/her judgment to his/her view of learning to teach:

As I see it, teaching is full of “issues” and so the most useful thing I could learn about teaching is how to discuss and “deal” with some of these “issues”. Problem-based scenarios provide the opportunity to consider some of these issues.

This view of learning to teach is in stark contrast to the comments by students who found the process “not very useful” (20%). The most common reason given for this rating was that the workshops needed to focus more on the practicalities of managing the ensuing practicum. The following responses are typical of this view:

RP 3 (Reflective Practice 3) would be more useful if it was run as a workshop where students can come, sit around tables and share ideas, discuss concerns, develop unit plans etc. in small groups.

I think we need more discussion about prac (sic) and useful hints from tutors.

The desire for more time talking about practicum issues was a common theme, even in the responses of some students who found the problem-based approach to be “useful”.

Aspects that were deemed to be “least useful” by more than one student were some students not having done the reading and repetition of material covered else-where in the course. Suggestions for improvement included varying the questions from week to week, having a greater focus on practicum related issues (especially behaviour management), having an introduction to the general topic before considering the scenario and introducing “newer topics in areas we don’t know as much about”. There
were also comments, such as the following, that indicated that some students would have liked me to contribute more:

Because group presentation was the main feature of this course, Judith did not talk too much. I actually wanted to hear more from her.

Discussion: Emergent issues

The results from the trial of problem-based pedagogy with two workshop groups were sufficiently positive to encourage me to persevere with developing this approach within my teaching. My observation in workshops, together with my analysis of students’ scenarios, support materials, written summaries and feedback, indicate that this methodology does appear to engage most students in personal and social construction of meaning, and theoretical and ethical reflection, to a greater extent than occurred through the presentation-based approach used in previous years. However, there are two emergent issues that require further consideration and action. These are 1) the need to reconcile my belief that students’ should engage in theoretical and ethical reflection, and many students’ desire to focus mainly on the specific and practical; and 2) finding productive ways to interpret my role as a facilitator of learning within the workshops.

Reconciling the practical, theoretical and ethical

Much has already been written about the difficulty of convincing student teachers of the value of theoretical and ethical reflection, when they are, of necessity, focussed on the practicalities of managing complex classrooms (see For example, Martinez, 1995). It is hardly surprising that concern with the practical is particularly evident in student teachers approaching a final, lengthy practicum. What was surprising in this study was that every scenario developed by the students had abundant practical issues intertwined with theoretical and ethical considerations, yet some students could not see the resultant discussion as having relevance for the ensuing practicum. It appears that these students’ interpretations of “practical” and “relevant” may equate only with the sharing of specific ideas and strategies that can be utilised immediately in their own practice, rather than with developing the problem-solving and reflective skills that enable application of knowledge and skills in diverse situations.

A related concern was that it was evident that many students did not meet the expectation of reading one of several suggested references prior to each workshop. This meant that their discussion of the scenarios was informed by their personal experiences and existing knowledge, but not by the challenge of new ideas from the literature. However, it was clear that students did read carefully across a range of literature when they were responsible for developing their scenario, support materials and workshop processes. In each workshop members of the presenting group were able to introduce literature-based ideas through their input in the small and large group situations, and, in some cases, the distribution of summaries of key ideas from readings.
Interpreting the facilitator’s role

The literature about problem-based learning pays considerable attention to the role of the facilitator of the workshop group. Suggested attributes of the role include “that of facilitator, resource person, group processor, role model, support person, devil’s advocate, administrator and ultimately assessor” (Bolzan and Heycox, 1991, p. 196). Most interpretations of this role are based on the assumption that the facilitator will be working with a small group of students only, in a traditional tutorial model. Unfortunately, this role was not so easy to interpret when working with a group of twenty five. I found that my main opportunity to contribute as a facilitator was through joining one or other of the small groups as they discussed the scenario, but that meant that I only interacted with a few students each time. I also felt that I had to be very careful not to dominate any group I joined, a danger highlighted by Estrad Duek’s study of science students using problem-based learning which found that “with the tutor present, participation decreased for all, but particularly more so for females” (p. 89). I found it unnerving that in each session I was not privy to much of the discussion that occurred in small groups, and so had no opportunity to challenge examples of bias or misinformation. I could only hope that that there would be one or more students within each group who would take on this role. Interestingly, one of the students identified a similar concern, writing, “Leaving it up to us to plan the scenarios and run the session may mean bias in content and less coverage”.

In conclusion, the findings of this study suggest that a problem-based approach to learning provides student teachers’ with pedagogical spaces that have the potential to make a difference to their construction of personal meaning and engagement in deeper reflection. However, to achieve this potential a number of issues need to be addressed in future implementation. In particular, I need to find ways to:

• help students see how engagement in practical, theoretical and ethical reflection connects positively to their preparation for the practicum and beginning teaching;
• structure some form of accountability so that students do engage in some preparatory reading for each workshop; and
• clarify my own role as a facilitator of learning within this approach.

References


Dare to be different: Write an auto ethnography

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This paper highlights a different way to present and research issues in education using the qualitative narrative methodology known as auto ethnography. Auto ethnography is a recognised methodology that combines the method with the writing of the text that in turn explicates the personal story, or journey of the writer, within the culture in which the study takes place. Although auto ethnography has not been common, within education, its value and the perception of its worth, is changing. This paper explains the use of auto ethnography, within a current study, investigating and relating a personal encounter occurring within the social context, or culture of teacher education and learning.

This paper highlights a different way to present and research issues in education using the qualitative narrative methodology known as auto ethnography. It is not my intention in this paper to argue the case for using auto ethnography, or to make a claim that it is the best methodology to use in education. What I am presenting in this paper is an explanation about what the methodology and writing style is about and present an example of my research using it. I do this as a possible guide in thinking about the future of our profession and the different ways to present the research of teachers.

Struggling with a design

I always wanted to paint a real and authentic picture of my research into Pre-Service Teacher Education (PSTE), the use of Computer Mediated Communication (CMC), and the ‘Internship’, which had in reality become a major part of my professional and personal life. I considered myself fortunate on one hand, that I was able to marry part of my professional work with my research study. However, on the other hand, I perceived that this closeness had the potential to be problematic to me and to potential readers because of an apparent lack of neutrality and objectivity, which is so often expected of research. I wanted to show my personal struggling, and engagement in a journey, which expressed my understanding of a reality lived, experienced and constructed. Polkinghorne (1997) led me to an understanding of what I thought I was coming to terms with and to recognise that I had at least some control of where I was going. His claim is that, “The narrative provides a more epistemologically adequate discourse form for reporting and assessing research within the context of a post positivistic understanding of knowledge generation” (Polkinghorne, 1997, p. 7). As a result of this understanding, I began to recognise that the knowledge, which I was constructing - through my own experiences and interactions with the world that I was a part of, yet also apart from - was legitimate, because it was my reality that I was constructing and, dare I say, creatively inventing the text using language. Polkinghorne voiced this in the following way. “No longer are knowledge statements considered to be mirrored reflections of reality as it is in itself; rather, they are human
constructions of models or maps of reality” (Polkinghorne, 1997, p. 7). Without really realising it at first, I was bringing my map of reality into consciousness, through my reading and my developing text. Over a short period of time, the narrative approach evolved for me as the most appropriate means of telling my story. Patton (2002) also helped me to appreciate the power of personal narrative and how my personal journey was woven into the fabric of a wider world study of the culture I was researching. “The idea of “story,” of personal narrative, intersects with our earlier look at auto ethnography in which the researcher’s story becomes part of the inquiry into the cultural phenomenon of interest” (Patton, 2002, p. 116).

However, I still had the feeling, or need, to justify what I was trying to do, in the telling of my story by returning to the ‘big guns in research’ i.e. the authorities in this narrative / auto ethnographic style. Reading the work of Ellis and Bochner further convinced me that, even though I was trying to relate and report my educational research in a different way to the ‘norm’, I was using a recognised post positivistic approach and, provided that authenticity could be established through the quality of my text, the subjective expression of my reality was appropriate.

When ethnographers like me make texts, try as we may to report and represent accurately, we necessarily invent and construct the cultures we write about… Your utterances in language cannot express anything completely independent of what you’re doing there. When we give up the notion of unmediated reality, we forego the scientists strong claim that he is discovering something completely outside himself (Ellis & Bochner, 1996, p. 20).

In reading the ‘big guns’ of narrative and auto ethnography (Denzin, 1997; Denzin & Lincoln, 2000; Ellis, 1997; Ellis & Bochner, 2000; Patton, 2002; Reed-Danahay, 1997; Richardson, 1995; Tierney & Lincoln, 1997; Van Maanen, 1995) I slowly began to understand what could be achieved in using such a personal and powerful tool as auto ethnography. Auto ethnography as described by Ellis and Bochner is a genre of writing that “displays multiple layers of consciousness connecting the personal to the cultural” (2000, p. 739) They claim that the distinctions between the cultural and the personal become blurred as the author changes the focus and moves back and forth between looking outward and looking inward.

Although auto ethnography has not been common within education, its value and the perception of its worth, is changing. Ellis and Bochner (2000) make the following claim: “Auto ethnography has become the term of choice in describing studies and procedures that connect the personal to the cultural” (Ellis & Bochner, 2000, p. 740). As I read the works of the narrative writers, my focus as a researcher changed and evolved. I started to see for myself the need to step back and take a hard look at what I was attempting to do and began to recognise that the narrative style was an appropriate one and, perhaps, the only way to present, in a meaningful and mindful way, the cultural phenomenon that I was researching and living. I also recognised that I was changing as an individual, and as a researcher, as I continued to reflect about my journey in the literature. In Patton’s words (2002), I used my experiences to garner insights into the larger culture or subculture of which I was a part. Therefore, at the centre of my auto ethnographic study lies my self-awareness and the reporting of my own experiences, my introspections, as a primary data source.
The background to my choice of methodology

So how did I come to believe that this methodology of auto ethnography was an appropriate methodological approach to tackling my particular study? In order to explain my recognition of the power of this method and writing style - which I had come to know as much more than an in-depth abstract account of research - I will briefly outline the intent of my thesis.

The aim of my research was to relate in narrative format an interpretative inquiry into changes and alternatives in pre-service teacher education (PSTE) and to examine some of the ‘big picture’ issues confronting pre-service teacher education and society at large, at the cusp of this new millennium. However, in the early days of my study I became aware that one of the major issues impeding my research preparation was the realisation that I was far too close to my study. I was living in this research space day by day. I was a mover and the shaker within the specific internship program that I was also researching. I was part of the lives of the participants and part of the ‘case’, which I was examining. My experiences, challenges and interactions with the subjects of my research were impacting on the subjects out ‘there’ and on myself as a researcher. Only by working through these issues, did I gradually see the legitimacy of myself as a subject of the research, as well as the researcher of the particular phenomenon, that I was attempting to research. This realisation was a significant breakthrough, which in turn led me to what eventually became my methodology and my writing style.

The emergence of auto ethnography as the preferred research approach

With the help of others, in particular one of my colleagues, who is a recognised narrative writer, I began to recognise that I was an insider, within the culture that I was examining, but I was also an outsider, within this same culture. In my struggle to resolve this conflict of interest, and my conflict in terms of a methodology, I began to focus on auto ethnography. I was aware that I was no longer capable of being just the objective observer or just a “participant observer” (Creswell, 2002). The writings of Reed-Danahay (1997), and Ellis and Bochner (2000) instigated my journey into auto-ethnography. Reed-Danahay (1997) suggests that “One of the main characteristics of an auto ethnographic perspective is that the auto ethnographer is a boundary-crosser, and the role can be characterised as that of a dual identity” (Reed-Danahay, 1997, p. 3). In presenting an interesting history of auto ethnography Reed-Danahay (1997) identifies the many different understandings of the term. She defines her use of the term as the form of self-narrative that places the self within a social context. It is both a method and a text, as is the case of ethnography. In the development of my research story, I saw myself as the ethnographer who tells the account of one’s life as an ethnographer. Reed-Danahay (1997) also suggests that voice and authenticity are open to question. Her claim, which I support, is to assume that “an auto ethnography is more authentic than straight ethnography and that the voice of the insider can be assumed to be more true than that of the outsider” (Reed-Danahay, 1997, p. 3).

Auto ethnography combines the methodology with the writing of the text which explicates the personal story of the writer with the encounters and experiences of the
culture in which the study takes place. It becomes an appropriate approach because
the author and researcher is both an insider and an outsider within the culture that is
being documented and the researchers hand, or voice, is revealed up front. As
explained by Ellis, “The goal is to enter and document the moment-to-moment,
concrete details of a life. That’s an important way of knowing as well” (Ellis &
Bochner, 2000, p. 761). Further to this they suggest that ‘Auto ethnography provides
an avenue for doing something meaningful for yourself and the world’ (Ellis &
Bochner, 2000, p. 761). The telling of my particular research journey into pre-service
teacher education means something to me personally, but it also has the potential to
have an impact on the wider educational community. I have adapted and used auto
ethnography as a means of investigating and relating a personal encounter, occurring
within the social context, or culture of teacher education and learning. I am not
attempting to declare my emerging knowledge as scientific truth, or as a discovery
beyond me, but rather as my creative construction of a reality, which I had lived.
Richardson expresses the view that “all knowledge is socially constructed” and
“Writing is not simply a true representation of an objective reality; instead, language
creates a particular view of reality” (Richardson, 1995). Auto ethnographies are this.
They are one person’s view of reality constructed around and through other people.

Auto ethnography as narrative

Auto ethnography as a narrative form of writing and as a ‘way of knowing’ is
established through thinking in the abstract and making judgements in the ‘here and
now’. Pentland claims that

the narrative is especially relevant to the analysis of organisational processes because
people do not simply tell stories - they enact them. Narrative data have surface features
that are useful for description, but explanatory process theories must be based on deeper
structures that are not directly observable (Pentland, 1999, p. 711).

Fitzclarence and Hickey (1999) further explain a little of the power of narrative
methodology and the arrival of meaning.

Narratives provide the sources of meanings that people attribute to their experience.
Stories not only express meaning given to experience but also determine which aspects
of experience are selected for expression. In this sense narrative or story provides the
primary frame for interpretation of experience (Fitzclarence & Hickey, 1999, p. 8).

If narrative is to be written as story and in a personal meaningful way, then it would
seem to be essential that it be written in first person. Ellis suggests that authors aren’t
encouraged to write articles in first person (Ellis & Bochner, 2000). Malin supports
this by declaring that we have now come a long way from the time we felt compelled
to refer to ourselves, in third person, as the ‘researcher’ (Malin, 1999). I prepared my
dissertation, and now write in the first person as much as possible because I believe
that writing in first person brings with it a personal accountability, an active voice,
presenting an authentic believable narrative containing the pitfalls as well as the
strengths. Ellis writes:

By not insisting on some sort of personal accountability, our academic publications
reinforce third-person, passive voice as the standard, which gives more weight to abstract
and categorical knowledge than to the direct testimony of personal narrative and the first person voice (Ellis & Bochner, 2000, p. 734).

The use of first person active voice brings with it a degree of risk because it exposes feelings, beliefs and attitudes. It also leaves one open to criticism because of a perceived lack of objectivity. However, if the perceived reality is presented as is, in an open way, i.e. without claims to be the truth, then the story conveys the message, the meaning and constructs the reality.

Constructing a reality

According to Bruner (1986) “there are two modes of cognitive functioning - two modes of thought, each providing distinctive ways of ordering experience, or constructing reality” (Bruner, 1986, p. 11). Argument and story (narrative) are distinctive ways of ordering thought, experiences, or constructing a reality. As such, although they are both “ways of knowing”, they vary greatly in the procedures used for verification. To Bruner (1986) what each seeks to convince us about is fundamentally different. An argument convinces us about what is truth based with an appeal to particular procedures, which have been used to establish formal and empirical truth. On the other hand, a good story convinces us because of its lifelikeness. It does not establish truth, like an argument, but presents verisimilitude. It is verisimilitude, which I believe that I am conveying by using a narrative writing style.

As I prepared for this study, I was filled with many misgivings, frustrations and insecurities. As I pondered I found the work of Janesick (1990) who used the “metaphor of dance” in her attempt to capture the essence of qualitative research design. She used the “metaphor of dance” because of her personal love of the art form of dance and the power of metaphor. “Because dance is about lived experience, it seems to me the perfect metaphor for qualitative research design” (Janesick, 1990, p. 209).

Eventually, after much thought and inquiry, I chose a qualitative research design because of the potential of this type of design to enable me to share my research as a lived experience.

The use of metaphor in my writing

In a similar way to that of Janesick (1990), I chose to use a metaphor to guide the telling of my research journey into Pre-service Teacher Education, an Internship and the use of Computer Mediated Communication. I made use of metaphor because of its power to bring new things into consciousness leading to initially unperceivable understandings. That is, metaphor has the power to take us to where we have not been, or ever perceived we could go.

The journey metaphor

The full importance of the journey metaphor, which Lakoff (1999) would describe as a complex metaphor, when applied to lived experiences can be understood more fully
in recognising the entailments of the journey metaphor. The following entailments can be seen as the consequences of our commonplace cultural knowledge about journeys.

- A journey requires planning a route to your destinations
- Journeys may have obstacles and you should try to anticipate them
- You should provide yourself with what you need for your journey
- As a prudent traveller, you should have an itinerary indicating where you are supposed to be at what times and where to go next.
- You should always know where you are and to where you are going next. (Lakoff & Johnson, 1999, p. 62).

My use of a journey metaphor moves beyond the above commonplace cultural knowledge about journeys. It is my belief that in this post modern digital world, in education in general, and in pre-service teacher education in particular, that it can no longer be assumed that a route can be planned to a particular destination. It is not necessarily possible to be prepared for all the obstacles, know what to pack, or to know the end-point. However, planning and preparation are still important, there are some obstacles that can be anticipated and it is possible to choose a direction to take, even if only initially. Perhaps one of the most valuable components of the journey metaphor is the relating of a journey, whatever it is, and the construction of a reality, as a story.

**My metaphor**

In constructing my reality, or story, I identified four distinct layers, or ways, to apply the metaphor, throughout the various parts of my research study. I refer to the first layer of the metaphor as the methodology layer, or the bird’s-eye view perspective. I used this layer to situate my study descriptively, explain the processes involved within the study, and describe the events that took place throughout the entire research journey. The second layer of the metaphor was my personal research journey into the literature of pre-service teacher education. In this layer, I saw myself metaphorically, as a canoeist, travelling down the mountain stream of pre-service teacher education to a unique snow gum. (The snow gum, an alpine eucalyptus tree, in this layer of the metaphor is a transition marker and locates the end of a particular journey). This journey through the literature, like a journey in a canoe down the mountain stream presents a challenging and interesting historical perspective and attempts to explain how pre-service teacher education (PSTE) in Australia arrived at where it is now. The third layer of the metaphor was my data gathering inquiry, presenting an emergent interpretation of what I saw and heard from others as taking place specifically in this pre-service teacher education program and in teacher education in general. This layer metaphorically represents the journey of the stream itself arriving at a transitional point in time, represented again by the snow gum. The fourth and final layer of the metaphor is evident along the way of the entire journey and, also, at the point of transition at the snow gum. This layer became the evolving metamorphic layer of analyses and the thinking, which emerged as the result of my seeking out of opportunities to stand back and reflect upon the findings of the study. I have examined the body of knowledge, which has been acquired and subsequently presented some of the significant thinking, and judging, that presents possible new alternatives, or ways forward, which are a direct result of my research journey.
There are risks involved in telling personal and professional stories and seldom can the whole story ever be told. There are parts that should never be shared on moral and ethical grounds. If some of the stories that were related to me were shared, then the privacy of the individuals concerned would be jeopardised. Ellis and Boucher (2000) also place a key responsibility on the authors “who made themselves and their experience, a central focus of their research” (Ellis & Bochner, 2000, p. 734). They believe that recently there has been “a wave of interest in personal, intimate, and embodied writing” (Ellis & Bochner, 2000, p. 734). Personal feelings and thoughts should be included, but not in such a manner as to bring harm to others. Although I am the person who is collecting the evidence, I am also one of the participants engaged in the process and in the product. Although I am an instigator and an observer, I am also in a relative position of power. However, in affecting others, I am also affected by others, because we all live within an interdependent ecosystem.

Ellis (1997) claims that in her early forays into narrative writing she experienced intimidation, or a fear of personal exposure. It wasn’t until she achieved increased status as an academic and experienced personal grief, which demanded expression, that she was prepared enough to give it a go. “Now it felt less risky to write something other than traditional social science, something that would be engaging, therapeutic and sociologically useful” (Ellis, 1997, p. 126). My quest is similar and through my writing and research I want to do something that is personally rewarding and also of benefit to the wider educational community.

The power of auto ethnography

In telling my research story using the methodology and writing style of auto ethnography, I have been able to relate my personal experiences and the experiences of others in a lifelike way. I have also been able to draw upon, re-think and re-conceptualise parts of the story of my professional life as an educator. My research story relates to, and embodies, my developing knowledge, my learnings, my thinking and my educational judgements about pre-service teacher education.

Herein lies the beauty of this methodology and its unleashed power in education “A profession of stories”. The writing of self-narrative auto ethnography contains multiple layers of consciousness, connecting the personal to the cultural. I recognise that the use of this method and way of writing / narrating has unleashed for me many joys and delights as I have reached new insights, documented my struggles, frustrations and failures, which have all become part of another imperfect story leading, of course, to further journeys.

References


Reclaiming the agenda: Focusing on what teachers do best for building mental health capacity

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The Australian Health Ministers have identified teachers as having a significant role to play in achieving the objectives of the National Mental Health Strategy. In light of education theory and practice there is no disputing that mental health is integral to the core business to schools. The role of the teacher however, as currently defined within the strategies biomedical framework, is questionable. Teachers are trained to think 'potential', not 'pathology' and it can be argued that it would be more appropriate to reframe their role in terms of what it is that teachers do best.

Knowledge, expectations, mental health and teaching

What is viewed as ‘knowledge’ shifts and evolves depending on which lens is being looked through and who is looking through the lens (Tonmyr et al., 2002 cited by Murray, 2002 p. 1).

Preceding the release of the National Mental Health Policy (Australian Health Ministers, 1992b) and Strategy documents (Australian Health Ministers, 1992a, 1998, 2003) the Australian Health Ministers (1991) adopted a ‘Mental Health Statement of Rights and Responsibilities’. The statement identifies teachers as one of the key professional groups in maximising the opportunity for Australians to develop good mental health and reduce the risk of developing mental health problems. Although not specifically directed at the education sector, the document makes two assertions of particular relevance to teacher education and practice. The first maintains that the consumer of mental health services has the ‘right’ to expect that educators … will receive sufficient education to enable them to recognise and refer those who may have a mental health problem or mental disorder (Australian Health Ministers, 1991 p. 5).

Such an expectation places emphasis on knowledge of pathology and certainly with evidence pointing to an increase in the incidence of mental illness, a decrease in the age of onset and an increase in severity (Australian Health Ministers, 1998; Raphael, 2000), there is no doubting the potential worth of such knowledge in the classroom. But is such an expectation of teachers reasonable? And, is such an expectation the most appropriate in strategic planning and policy development aimed at achieving best outcomes for students? Reflection on the second point of significance perhaps gives some credence to an alternative perspective. Within this same document, the Australia Health Ministers proclaim mental health to be a positive construct, declaring it to be one of the most important assets for the whole community and of such significance as to underlie an individuals’ capacity to love, work and play. They define mental health as
It is a definition that suggests that mental health has more to do with ‘potential’ than ‘pathology’ and shifts the emphasis on what knowledge is of value to the knowledge that educators can profess expertise in, that of how to build capacity and encourage the development of what’s possible. In order to understand the implications that such a definition has for teacher education, mental health needs to be viewed through the lens of education theory rather than of healthcare. Reframing mental health in terms of its relationship to the fundamental precepts of education will not only help clarify the role of the teacher in building mental health capacity, but will assist teachers to reclaim the agenda for mental health promotion in schools.

**Teaching, teachers and the recognition of pathology**

The National Mental Health Strategy, although essentially driven by the leadership and agenda of the healthcare sector, has far reaching implications for and application within education. The fact that the healthcare agenda is the prime focus for the strategy is not a startling revelation but an important fact to acknowledge in understanding why the National Health Ministers could presuppose that it is reasonable for non health professionals such as teachers to be trained to recognise pathology. To put it into perspective, the biomedical framework upon which Mental Health Services are based aims to identify pathology, to understand the processes by which pathology occurs and to search for ways to continually improve the prospects of recovery (Cowen, 1994). It is significant to note however that within the confines of limited resources, health policy and investment has largely been reactive and aimed at the provision of treatment (National Health and Medical Research Council, 1996). Clinical resources in mental health are estimated to be at best one tenth of what is needed (World Health Organisation Department of Mental Health and Substance Dependence, 2002) so collaborative partnerships with other service industries is seen as essential in meeting healthcare objectives. Training teachers to recognise and refer students experiencing mental health problems for example, would provide a means to improve rates of help seeking behaviour in children and adolescents (M. G. Sawyer, Arney, Baghurst et al., 2000) ; to prevent / minimise the development of pathology by educating and developing community understanding of risk and protective factors (Commonwealth Department of Health and Aged Care, 2000); a means to facilitate early intervention and so improve outcomes, minimise disability and reduce socioeconomic costs (NSW Health Department, 2002); and through dissemination of fact redress the myths and serve as an initiative in the de stigmatisation of mental illness (Commonwealth Department of Human Services and Health, 1994).

Made to order, the ‘Response…Ability: Resources for Teacher Education’ (Hunter Institute of Mental Health, 2001b) is a curriculum resource package targeted at Secondary Teacher Education. Initially developed and funded by the Suicide Prevention Task Force it aims to help graduates develop their awareness of, and
ability to respond to issues of mental health promotion and suicide prevention (Hunter Institute of Mental Health, 2001a). Provided in kit form the package includes among others an ‘overview of mental health promotion in schools’, a ‘Risk and Resilience teachers guide to mental health’ and four dramatised case studies complete with detailed lecturer notes, guided questions and additional resource list. Not disputing its value for the 20% of students who experience mental health problems and the 3% with diagnosable mental illness (MindMatters Consortium, 2000); nor its efforts in giving guidance and support to teachers who may be confronted on a daily basis, with crisis situations involving compromised and challenging students struggling with mental health issues; the program, despite the fact that it has been well received (Hunter Institute of Mental Health, 2001a), can be criticised in terms of the fact that it presents the issue of mental health as it relates to the role of teacher through the language and lens of the medical model.

Within the medical model, whether discussing health promotion, illness prevention, early or crisis intervention, rehabilitation or recovery, the reference point is always the deficit state. An orientation no better demonstrated than in the adopted definition of ‘mental health literacy’. Even though the health ministers have consistently defined mental health as a positive concept, further articulating it to be a state of emotional and social wellbeing in which an individual can achieve their potential (Australian Health Ministers, 2003), they assert its literacy to be

The ability to recognise specific disorders; knowing how to seek mental health information; knowledge of risk factors for and causes of mental illness; knowledge of self treatment and of professional help available; and attitudes that promote recognition and appropriate help seeking (Jorm et al., 1997 cited by Australian Health Ministers, 2003 p.35).

Within the medical model, the thinking and discourse are both centred on and around the valued knowledge of and expertise in pathology – how to describe it, how it develops, how to avoid it and how to manage it. It is a world view fundamentally and universally built on the notion, analysis and containment of ‘risk’. Unfortunately, when risk is the primary consideration, the targeted outcome becomes preventing the worst rather than achieving the best (Beck, 2003). It is quite a different way of talking and thinking than that of quality education. In consideration of effective educative practice, superimposition of medical thinking onto education can not only render teachers effectively powerless and ‘illiterate’ (Street, 1990), according to Paulo Freire (Bruss & Macedo, 1984) it is a comprehensively oppressive act. In terms of the being trained to recognise pathology, the concern for teacher education and practice however doesn’t stop there. As noted previously the World Health Organisation (2002) has estimated that clinical resources in mental health to be at best one tenth, at worst one percent of what is required. The National Survey of Mental Health and Wellbeing (Australian Bureau of Statistics 1997 cited by Mental Health Council of Australia, 2001) identified that only 38% of those experiencing diagnosable mental illness utilise mental health services. Targeting help seeking behaviour could potentially see the demand for clinical services increase by more than 150%. The unfortunate state of affairs is that the workforce already struggles to manage current case loads, and with increasing incidence of mental health problems it is unlikely that
specialised mental health services will ever be able to meet the needs of all those with problems (M. Sawyer & Whitham, 2002).

Notwithstanding its limitations, the medical model continues to be extremely powerful, almost hypnotic in its ability to command community interest. It remains the pre-eminent and predominant voice in the political and academic debate, skilfully manipulating efforts to focus attention on mental illness under the guise of talking about optimising mental health. Indeed, through its efforts considerable investment has been and continues to be made in generating a vast data base on pathology and its aetiology. Pathogenesis, if only through gory fascination, is held in esteem but it has only been in the last 30 years that a corresponding word for the aetiology of wellness and health, ‘salugenesis,’ has even been proposed (Antonovsky, 1981). In spite of the socioeconomic and political investments made however, in particular for disorders suffered on mass, there has been no successful attempt at controlling or eliminating pathology, by focusing on the pathology itself, either in terms of treating individuals or training large numbers of therapists (Albee 1983 cited by Murray, 2002 p.2).

There is a consistent call in the literature for closer collaboration between health and education as an important step in promoting both the well being and educability of young people (Australian Health Ministers, 1998; New South Wales Health Department, 2000; Resnick, Harris & Blum, 1993) but upon what basis should a collaborative partnership between the health and education sectors be built? Is it indeed reasonable to expect teachers to be trained in pathology, not because they are not capable or because the skill wouldn’t be useful but because is it the most creative option in terms of how teachers think? And under what terms can such a partnership facilitate best outcomes for students? In light of the limitations of the medical model, can education theory offer insight into an alternative approach?

**Mental health as core business for teachers**

To establish effective collaboration between healthcare and education, consideration must be paid to improving the understanding, on the part of both sectors of their similarities and differences in terms of their language and their fundamental aims and objectives. If for instance the most recent definition of mental health as outlined in the 2003–2008 National Strategy document is compared with the aims and objectives of education as identified by some of its most respected theorists, that is

Mental health is a state of emotional and social wellbeing in which the individual can cope with the normal stresses of life and achieve his or her potential. It includes being able to work productively and contribute to community life. Mental health describes the capacity of individuals and groups to interact, inclusively and equitably, with one another and with their environment in ways that promote subjective wellbeing, and optimize opportunities for development and use of mental abilities. Mental health is not simply the absence of mental illness (Australian Health Ministers, 2003 p. 34-35)

and education aims

To draw out the best in a person (Ghandi)
To increase social efficiency (Dewey)
To bring freedom to the oppressed (Freire)
To stimulate and guide self development (Whitehead)
To create a sound mind in a sound body (Aristotle)

then it is hard to argue that building capacity for and promoting mental health is not
core business to schools. The National Goals for Schooling in the 21st Century in fact
capture the common ground by identifying that

schooling contributes to the development of students’ self worth, enthusiasm for learning
and optimism for the future … schooling should develop fully the talents and capacities
of all students … (The Ministerial Council on Education Employment Training and
Youth Affairs, 1999).

As with mental health, the national goals identify quality education as being
optimistic and strategic. In his 2001 monograph on the effectiveness of schools and
their teachers Peter Hill notes that high performance schools set high standards, are
adaptive and purposeful. Effective schools put the development of each individual
students potential at the centre of their work but any given school is only as effective
as the quality of classroom teaching (Hill, 2001). The language of potential describes
quality teaching as being innovative (Cuttance & Owen, 2001) and the ‘linchpin’ of
schooling success (Istance, 2001).

Mental health and the language of potential have more relevance to the art and
practice of quality teaching than mental illness and the language of pathology. But
even under the current scenario of a prevailing discourse that is oppressive, it can
highlight the struggle to find meaning and direction (Mills, 1997) and as with the
basis of this paper, even be a prospective starting point for an ‘opposing strategy’
(Foucault 1978 cited by Mills, 1997). Surely an alternative approach is worth
considering when the prospects of

a systematic effort to promote wellness from the start may proved to be more humane,
cost effective and successful a strategy than struggling, however valiantly and
compassionately, to undo established deficits in wellness (Cowen, 1994 p.150).

The strategic role and setting of schools ensure teachers are ideally situated to think
and act in terms of ‘from the start’. With a focus on creating rather than restoring
health, teachers not health care clinicians, have been noted as being best placed to
provide health education (New South Wales Health Department, 2000). But what does
that mean for teacher education? What is the substance of health education when after
a long history of emphasis on pathology little is known of salugenesis?

The current understanding of and focus on the ‘causes of health’ is based on the
notion of risk and protective factors. Schools have been cited as having a major
protective influence; they provide significant opportunities for developing and
strengthening social and spiritual connectedness (Resnick, Bearman, Blum et al.,
1997). In terms of protection, it has also been observed that good health is linked to
successful learning; the more engaged in education an individual is the more healthy
they tend on average to be, and as health improves the greater potential there is for
learning to take place (New South Wales Health Department, 2000). Both these points
have frequently been attributed to the social development goals of education and often
neatly packaged within the domain of life skill competency and or social capital
investment (Mahar & Sullivan, 2002). But is this the whole picture? In developing
crisis management plans with young people struggling with poor impulse control leading to self-harming and or socially aggressive behaviours, they typically nominate strategies such as ‘read a book’, ‘journal’, ‘draw’, ‘play music’, ‘go online’ as strategies that keep them safe. Those who are the most disengaged and poorly educated often struggle to identify any mental health strategy. In working with such youth they frequently have poor problem solving and communication skills. Yet does the teacher planning for their lesson on geometry, music appreciation, word processing, grammar, spelling or geography consider how a student may use what they learn, both interacting with the subject and the social environment they set in the classroom, to create and or consolidate a repertoire of mental health strategies? Mental health strategies are not simply coping mechanisms, they also underlie pleasurable experiences as reinforced by the body of research literature using ‘happiness’ as an alternative word to ‘mental health’ (Ryff, 1989). Health remember, is not simply the absence of illness. The implication for teacher training is not only developing an appreciation of the critical issue of the relationships teachers foster with and between students, but looking through the lens of education theory, it is an imperative for students of education, to explore the relationship between creating mental health and the outcome targets of each of the key learning areas. It is in understanding what it is teachers do and do well, that they will appreciate the significant role they as teachers play in building mental health capacity.

**Reclaiming the agenda**

The subject which involves all other subjects, and therefore the subject in which education should culminate, is the theory and practice of education (Spencer, 1963, p.85).

Mental health is a universal phenomenon. It is pervasive in its impact on an individual's sense of self, meaning making processes and purpose in life; on their reasoning and reflective power; on their overall health and on their ability to constructively relate and connect with others and their environment. Mental health has traditionally been perceived as being associated with mental illness. In defining mental health as a positive rather than negative, integral to optimising psychosocial and cognitive development, building capacity for mental health becomes identifiable with the core business of schools. Building capacity for mental health as distinct from preventing mental illness is not only consistent with educational objectives, like education it focuses attention to detail through the language of ‘potential’ rather than of ‘pathology’. With the admission by the health sector that there are already insufficient numbers of trained clinicians available to manage those in need, and with the incidence of mental illness anticipated to increase, the policy and practice of ‘recognition and referral’ is not only debatable but insufficient. The interface between mental health services and education would seem to fit the image of the Roman god Janus. A two faced figure, one looking upstream at building potential for creating health, the other looking downstream at building resilience against illness. The common language at the interface however would seem to be that of health rather pathology. Upstream policy development suggests the need for teacher education to explore the relationship between curriculum objectives across all the key learning areas and the development of sound mental health. Teachers do have a key role to play in encouraging and facilitating mental health potential but that role should be
clarified in terms of education theory and practice … in terms of what teachers do and what they do well. Mental health is core business to education, not in competition but in compliment to the business of health care. To facilitate equitable, transparent and effective collaboration and partnership in professional practice, it is appropriate for the teaching profession to reclaim and reframe the agenda of mental health as it relates to education. In taking the initiative around creating and building capacity for mental health, teachers will develop the confidence to see it for what it is. Mental health is in fact, a dimension intimately linked with education theory and practice, a subject that students of the profession should appreciate their role and take academic, social and political leadership in.

References


Thinking innovatively about advancing the innovative potential of preservice teachers

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The recently released Australia’s Teachers: Australia’s Future (Department of Education, Science and Training, DEST, 2003) makes some very good points: it would indeed be wonderful to build a culture of continuous innovation in education wherein creative and enterprising persons who demonstrate high levels of competence and responsibility co-operate and learn productively together. However, the document itself is far from innovative in its views of how (preservice) teachers should be taught to foster learning in these new ways. In this paper I adopt a poststructuralist view that the capacity to act in innovative ways (or to defer to the accepted ways) is not a matter of personal knowledge, attitude or attribute alone, but partly at least shaped in teaching/learning relationships in teacher education and related educational sites. Because these relationships are constitutive of the educators of the future, their qualitative nature needs to change – epistemologically, so that preservice teachers learn better science and mathematics and more about technology enhanced learning as delineated in Australia’s Teachers: Australia’s Future (DEST, 2003), but also ontologically such that preservice teachers themselves come to know innovative inquiry-based ways-of-being a learner and educator in the twenty-first century.

Australia’s Teachers: Australia’s Future (2003, p. 217) makes clear the educational climate or culture it is seeking in schools; it is one where students “learn how to learn, to develop thinking skills and other metacognitive strategies, to learn in teams, to cope with ambiguous situations and unpredictable problems, to communicate well in speech and not just in writing and to become creative, innovative and entrepreneurial”. While the document recognises that the changes in pedagogical practice such learning implies signify a transformation rather than an incremental change in teachers’ practice, it does not engage seriously enough with the question of how this change will be realised. Like many policy documents, Australia’s Teachers: Australia’s Future (2003) relies on outdated notions of teachers and teaching to convey an unwarranted certainty that the desired changes are well within reach. As well, it places the onus for change squarely on the shoulders of teachers and teacher educators.

The document invokes humanist notions of rational autonomous teachers (teacher educators and preservice teachers) able to reflect on practice and implement innovative classroom cultures. It relies on the psychological individual, who “understands” new teaching practices and is socialised into novel educational cultures through participation in teacher education programs and schools (DEST, 2003, p. 131). As well, a-critical notions of the efficacy of collaboration, learning partnerships and time spent in schools over-simplify the often arduous and difficult journeys of preservice teachers struggling to establish themselves as competent and innovative teaching professionals in balkanised university and school classrooms. In this paper I
argue that new conceptions of teachers, teaching and teacher education are needed to ground educational practice in and for the twenty-first century. As Luke, Luke and Mayer (2000, p. 11) state: “Remaking the teacher and the school and redesigning teacher education for new times go hand in hand”. Though remaking is necessary, it is not expected to be easily won because, as I suggest from a poststructuralist perspective:

1. **Teachers** are not instruments to be shaped and moulded according to economic or any other imperative;
2. **Teaching** is much more than having and applying knowledge and skills; it is an interactive productive process wherein constructive intellectual and affirming social knowledges are (at times) supported and (at others) suppressed; and
3. **Teacher education** is also a process, though it began long before prospective teachers enter formal programs. Teachers in process should be given the intellectual, emotional and physical spaces to achieve themselves as competent, innovative and inclusive educators of the future. Teacher education programs are well placed (though not yet well enough resourced) to positively work with preservice teachers for these outcomes, recognising though that the disposition to act in innovative and inclusive ways does not necessarily attend competence in intellectual and pedagogical skills.

**Notion of the teacher as instrument**

Throughout *Australia’s Teachers: Australia’s Future* (2003) humanist, psychological notions of teachers and students prevail. St Pierre (2000, p. 500) states: “The individual of humanism is a conscious, knowing, autonomous, and ahistoric individual who is endowed with a will, a freedom, an intentionality which is then subsequently expressed in language, in action, in the public domain”. The humanist individual can observe and reflect rationally on the outside world, and has the power to bring about change. In the DEST (2003) document, it is taken for granted that teachers will understand and reflect rationally on the proposed changes and do their best to implement them. For example, teacher education must ensure “that all students [preservice teachers] improve their broad understanding of the forces of change in Australian society and the importance of science, mathematics and technology in underpinning the knowledge economy and society” (DEST, 2003, p. 145). It is assumed that understanding policy leads to compliant action, rendering invisible the numerous social, emotional and intellectual factors that intersect to affect teachers’ practice. Indeed, in the above document the teacher is represented as almost robotic needing “a trained capacity to teach the science, mathematics and technology components of the primary school curriculum…” (DEST, 2003, p. 145). The word “train/ing” pops up intermittently and the implications take teacher education back many years to when the teacher was seen as little more than an instrument of the state.

Unfortunately it does teachers, and the whole educational enterprise a great disservice to think of teachers in this way. Teachers will not be led by the nose in directions they have no desire to go; they have strong investments in teaching ‘well’, but this is as they have personally constructed it, after many years in the classroom as a student, student teacher and teacher. They do understand policy, but its implementation may be ignored or a pretence, depending on how well it meshes with what their own
experiences have taught them about how children learn and how teaching is ‘done’. Luke (2003, p. 59), for example, states:

Teachers are artists at resisting, undermining and ignoring policy. For their part, many policy makers know that teachers ignore central office, disregard curriculum reforms, and devote substantial work to getting around policy.

While many taking a humanist perspective could assert that teachers are just being obstinate, an alternative reading could be that asserted by Janks (2002, p. 32) that “identification holds reason hostage”. Teachers, and preservice teachers, often identify with traditional ways of being a teacher, unintentionally reinforced in teacher education, that militate against the implementation of policy and intellectually rich and innovative teaching/learning cultures in schools (Klein, 2002).

**Notion of teaching and teacher education as instrumental**

In *Australia’s Teachers: Australia’s Future* teaching is defined as “a complex, sophisticated task requiring a high level of skill and training” (DEST, 2003, p. 102). The overriding need for preservice teachers is seen to be the development of greater practical skills for the classroom environment, including the effective use of ICT…and as an afterthought, it is stated “there must be more serious effort directed at ensuring teachers are properly prepared to teach Indigenous students” (DEST, 2003, p. 133). Teaching is seen as instrumental, as something done to students, and again it is assumed that there is a linear translation between skills taught, ‘proper’ preparation and classroom (social) practice. This discursive construction of teaching is convenient though dangerous; it is convenient for policy makers in making change sound easily achievable and yet dangerous in that it trivialises the role of the teacher and the task facing teacher education and schools. First, it constructs the teacher as a technician and teacher technicians are meant to search for and find the ‘best’ techniques for teaching, ignoring the socially, ideologically and politically charged nature of these techniques. However, this raises the perplexing question of how it might be that teacher technicians could hope to foster innovative and entrepreneurial thought and action in those they teach; how could it happen that while they themselves are compliant and accommodating to what others demand of them, that they could work with their students in ways that celebrate diversity, difference and innovative participation? Teacher technicians (in schools and universities) and their instructional strategies are unlikely to make available to students the physical, emotional and intellectual spaces needed to fashion critically reflective teachers and citizens of a postmodern world.

A second problem is that it is teacher education that is charged with the task of ensuring that the stipulated outcomes are realised: “teacher education…is critical in any moves aimed at increasing the proportion of young people studying science, technology and mathematics and acquiring competence in other fields of high knowledge intensity and application” (DEST, p. 129). Teacher education is seen as an instrument or tool; to ensure “an appropriate knowledge, skills, values and attitude base” (p. 127) and to “convey good teaching practice” (p. 131). Again there is the assumption that the preservice teachers’ capacity for innovative practice follows easily from knowledge and skills developed in teacher education; for example, DEST
(2003, p. 163) states: “Building the capacity of teachers to foster a culture of innovation and support students’ innovative learning capacities involves a range of knowledge, skills and attributes...”. However, there is now an extensive literature (O’Brien & Schillaci, 2002) that shows the over-simplification of this assumption; research demonstrates that learning to teach in ways that authorise student initiated inquiry and entrepreneurship is a much more confused and complex process. It is not easy for preservice teachers (nor teacher educators) to abandon the authoritative teacher-centered communication styles through which they have been constituted, and which, if taken to excess, build a culture of dependency and inhibit innovative participation on the learners’ part.

The professional self: Contingent upon discourse

A difficult and contentious first challenge to be faced in teacher education is that preservice teachers (and teacher educators) have been constituted through relations of power in normalising practices (discursive practices) in school that essentialise and categorise according to humanist interpretations of ability and socio-cultural status. They have come to know that there are those who can do it, and those who can’t, often categorised along gendered and cultured lines. For example, psychological discourses that inform classroom practice take for granted that there are motivated/unmotivated learners and management discourses speak of the well behaved/poorly behaved students. It is as if students have essential qualities that define them, that are unchangeable and indicative of their ‘proper’ positioning on the positive or negative side of the binary. This constituted knowing (Lather, 1991) about the nature of learners, and the interactional protocols appropriate to learners positioned on each side of the binary, anonymously influence the preservice teachers’ classroom practice. Ultimately, if learners are essentially good or bad, motivated or not, there is little need to vary one’s instructional routine; the good, motivated students will learn, while the ‘others’ will not.

Similar normalising discourses (student/teacher; expert/novice) frame teacher education and valorise ‘experience’ as if “learning to teach is a linear process in which a novice student becomes a teacher through the function of unproblematic experience” (Youngblood Jackson, 2001, p. 386). However, ‘experience’, whether on campus, or in schools, is never unproblematic and can have positive or negative effects on developing professional identities. To the extent that teacher education “remains a bastion of traditional pedagogical practices” (Luke et al., 2000, p. 10), outdated authority relations prevail. Preservice teachers depend on their lecturers, school-based teacher educators, booklets of readings and texts to make available to them the selective skills and knowledge said to be needed to make them recognisable as teachers. In schools they are often expected (Youngblood Jackson, 2001) to ‘model’ themselves on the school based teacher educator, establishing themselves as apprentice to the knowledgeable and ‘experienced’ teacher. However, as Luke et al. (2000, p. 9) make clear, such practices ‘are geared not so much toward the creation of a ‘generative’ teacher for new ecologies and technologies, but more towards the representation and reproduction of particular historical models of ‘good teaching’, as culturally generalisable and as universally practical.”
A poststructuralist epistemological position recognises how preservice teachers, as they construct intellectual knowledge, are simultaneously constituted through how they are positioned in the intersecting discourses of teacher education. Although these ‘discourses’, as a noun, centre on new types of learning, new partnerships and collaborations and innovative practice in schools, the discursive ‘practices’ of teacher education can act conservatively in funneling thought and action towards what is constructed as ‘best practice’. Walkerdine (1990, cited in St Pierre, 2000, p. 503) explains that “inherent in the discursive positionings are different positions of power. Individuals, constituted as subjects and objects within a particular framework, are produced by that process into relations of power. An individual can become powerful or powerless depending on the terms in which her/his subjectivity is constituted”. Preservice teachers, who throughout their time in teacher education are consistently positioned on the ‘novice’ side of the expert/novice binary, probably do not have the opportunity to recognise themselves as competent and innovative, they begin teaching on shaky ground, and often leave the profession soon after their first year. Novice teachers can only ‘be’ in the classroom as the intersecting discourses of their lives, including teacher education, have made possible; they are not the sole architects of their professional identities and abilities (for example, to facilitate inquiry and interact with learners in innovative and inclusive ways), which are more so the effects of cultural practice and discourse.

**Constituting preservice teachers to think and act ‘outside the square’**

From a poststructuralist perspective the quality of the pedagogic process or learning journey is enormously important. Traditionally it has been important primarily because of the pedagogic and intellectual knowledge and skills constructed, but more recently also because of its ontological dimension, and how it influences ways of being a teacher and learner in New Times. Currently, when preservice teachers enter teacher education programs their learning journey is already fairly carefully scripted; there are subjects to ‘cover’, disciplinary and pedagogical knowledge to construct, a set amount of time to be spent in schools and exams to pass. As Phelan (2001, p. 593) cautions: “When an instrumental view of teaching is sanctioned by institutions, then teacher education becomes a question of maintenance of and accommodation to the status quo. It simply reinforces the type of knowing (epistemology) and being (ontology) already in place”. However, Butler (1995, p. 135, in St Pierre, 2000, p. 502) suggests that things could be different: “To be constituted by language is to be produced within a given network of power/discourse which is open to resignification, redeployment, subversive citation from within, and interruption and inadvertent convergences with other such networks. ‘Agency’ is to be found precisely at such junctures where discourse is renewed”.

This has important practical implications for teacher education. Teachers (and preservice teachers) act ‘rationally’ only within the discourses through which they and their teaching practices have been shaped, signaling the necessity of an alternative discourse and innovative discursive practices in initial teacher education and professional development programs. Such an innovative pedagogy would recognise and make explicit how teaching/learning interactions produce knowledge and professional identities, how what one knows and how one comes to know it are
inextricably linked (Lusted, 1986). An inquiry based “border” pedagogy (Davies, 2000) may go some way towards making spaces for the preservice teachers to develop the authority/agency to find themselves able to interact with learners, teaching colleagues and members of the community in more flexible, inclusive and innovative ways. Such a pedagogy would comprise three inter-related strategies of “making words visible”, “naming forms of containment and restriction” and “movement into new linkages and alignments” (Davies, 2000, p. 195). Since this pedagogic framing would question and interrupt much of what has for so long been taken-for-granted about teaching, it is not expected to find immediate support; however, for preservice teachers, it has the potential to draw attention away from getting the teaching act ‘right’, in instrumental terms, to a deeper and perhaps more inclusive concentration on the quality of students’ learning.

Making words visible

A first step is to have preservice teachers recognise the constitutive force of discourse; to note, first at a personal level, how the words used to describe them and the discursive practices that engulfed and caught them up in school and community contexts continue to influence their lives. Within teacher education discursive spaces need to be made for the students to recognise and analyse the educational, cultural and biographical discourses that have shaped them (Phelan, 1996); they need to recall the discursive practices of the homes, communities and classrooms in which they grew up, how these practices supported or suppressed their learning and their sense of themselves as competent and confident students. From the different stories the preservice teachers tell, of how they were positioned (perhaps as ‘clever’, ‘remedial’, or ‘slow’) and the effects this had on their learning, they will realise how identity, as well as intellectual knowledge, is shaped or constituted in discourse. Phelan (1996, p. 344), for example, states: “Prospective teachers learn that a teacher’s identity is an invention, a constant social negotiation among discourses that are made available during teacher education and thereafter”.

Preservice teachers could be supported in celebrating their differences, in sharing the different ways in which they see the world, not to find one better than the other but to learn more through engaging critically with differing perspectives. In celebrating their individual differences, in coming to terms with the complicated and often contradictory discourses through which they have come to know themselves and the world as they do, they may move away from seeing learners in humanist terms, as essentially motivated/not motivated, clever/dull or Anglo/Indigenous. At the heart of this centuries-old problem of binary thinking is ‘deficit’ thought and talk, that comforting refuge of humanists unwilling, and perhaps unable, to change how they interact and work with students. Luke (2003, p. 79) explains deficit talk:

Everybody is deficit: kids are empty vessels, they’re watching too much TV, they can’t speak English properly, their parents don’t parent, nobody reads to their kids. The language of deficit is proliferating in staffrooms right across the country as we face the effects of the new poverty, of culturally diverse populations where previously we dealt with homogeneous ones.
While the words that are spoken in educational contexts are powerful, the question of who is allowed to initiate and speak them is also significant. To be able to act in powerful ways in a discourse, one must be respected and valued for the contributions one can make. In science and mathematics classrooms, for example, the tendency has been for the teacher and text to authorise what can be spoken and in what manner, often rendering the students silent and marginalising them from full participation in the discourse. Students are not authorised to author their own understandings or make their own sense of mathematical and scientific ideas. Preservice teachers should be supported in recognising that exclusions and alienating learning relationships such as these matter (they are constitutive of the scientists and mathematicians of the future), as they imagine how these relationships could be altered to better support learner competence and innovative and equitable participation.

**Naming forms of containment and restriction**

The second issue related to agency for preservice teachers has to do with power; it questions the power of traditional teacher education programs to strip students of the right to speak and be heard on matters pertaining to their own education (of course students do speak when given the opportunity, though they are rarely heard due to the inflexible, pre-determined structures of teacher education). Since levels and quality of participation are constitutive of developing professional identities, it is important that a culture of inquiry, dialogue and potential frames teacher education, rather than the current culture permeated by the transmission of knowledge and deficit talk. Preservice teachers should be engaged in a learning culture where deep and meaningful learning happens, where who they are and what they can contribute is valued and where teacher educators at school and university sites, listen and learn as much as the students. Luke (2003, p. 71) contributes to this argument:

> There is a tendency to want to write off the younger generation of teachers as somehow deficit or unable to do whatever we were able to do, rather than appreciate they are much better with the new technologies than us and generationally closer to the kids they will teach than us. We need an intergenerational exchange around pedagogy...rather than deficit definitions.

While intergenerational exchange around pedagogy is the ideal, the discursive practices of teacher education are currently based on normalising assumptions and discourses that make this very difficult. As Youngblood Jackson (2001, p. 387) makes clear, in teacher education the teacher/student, expert/novice binaries are laden with meaning:

> The normative discourse holds that those who have the most experience possess the most power and knowledge, and those who tout this discourse expect novice teachers to conform and fluidly take up an identity similar to that of their mentor, who is the master teacher.

Teacher educators, too, have investments in having prospective teachers see teaching in the ways they do, and can, often unknowingly, demand deference to their ideas through practicum assessments and exams. As an understatement, DEST (2003, p. 131) suggests “A key challenge for teacher education is to change students’ understanding of new approaches to teaching when they have themselves been taught
in schools by more traditional methods (chalk and talk, rote learning, transmission approaches)

Movement into new linkages and alignments

While humanist discourses currently framing practice in teacher education and the production of documents such as *Australia’s Teachers: Australia’s Future* (2003) take agency for granted and imagine that “agency is, by definition, a feature of each sane, adult human being” (Davies, 1991, p. 42), poststructuralist theories that speak of the professional self constituted in discourse are much more circumspect. Transformative practices towards more inquiry oriented and innovative cultures of learning, both in teacher education and schools, will not follow mandated tests and threats, but will grow out of purposeful dialogue, community building and courage. Teacher education programs are well situated to begin this transformative process, working with schools and the wider community to demonstrate how transformation can be positively and effectively negotiated in the interests of teaching and learning across institutional sites. As Luke et al., (2000, p. 9) make clear:

The challenge is to move teaching and teacher education outside the walled space of the modernist classroom, asking it to intellectually relocate itself in relation to other civic and community, real and imagined worlds, directing it into a critical engagement with the mass civic pedagogies that regulate these worlds, and making it a motive force in the reconstitution of those worlds.

The discursive practices of teacher education could be renewed to situate the teacher *in process* in learning situations where s/he is able to achieve authorship or authority in knowledge construction. The preservice teacher could be positioned as one who may or may not know curriculum content and pedagogical strategies, but who can find out; as one who is different from every other teacher, who has special (constituted) qualities and abilities that are dynamic and changing from day to day. Often competent in digital literacies and multiliteracies, preservice teachers will flourish in discursive contexts that encourage them to learn from every person they meet, to endlessly ask questions and carefully listen to the answers, as they chart their learning-to-teach journey in novel ways, for example, in e-portfolios constructed throughout their program of study. The compilation of the portfolio puts the preservice teacher in the driver’s seat, enabling her/him to better understand self and profession, to become a proactive architect of professional development and to obtain fair and comprehensive assessment (Campbell, Cignetti, Melenyzer, Nettles & Wyman, 2004). However, the job of teacher education is not yet complete; as well as its constructive role in building up competence, it has the often unpalatable and unappreciated role of deconstructing business-as-usual in teacher education and schools. The ‘border pedagogy’ (Davies, 2000) of teacher education, a pedagogy that is learner centered, grounded in practice, critique and critical dialogue, imbues and celebrates uncertainty about extant constructions of ‘good’ teachers, teaching and ‘best practice’; it is a pedagogy not of transfer but of unremitting transformation of thought and action.
Conclusion

In teacher education (and professional development programs) new discursive resources could be utilised to deconstruct romantic views of teachers and teaching. In enacting discursive practices framed by notions of teachers and learners as constituted, and all learning contexts as socially and politically compromised, the hope would be to build up a sense that ‘things could be different’ and that “nothing is ever settled completely” (Phelan, 1996, p. 344). The analysis in this paper, then, is not to expose a hidden truth, but to disrupt what is taken as unquestionable truth, making spaces for innovative thought and action. Rose (1999, p. 276-77) states:

To analyse, then, is not to seek for a hidden unity behind this complex diversity. Quite the reverse. It is to reveal the historicity and the contingency of the truths that have come to define the limits of our contemporary ways of understanding ourselves, individually and collectively, and the programs and procedures assembled to govern ourselves. By doing so, it is able to disturb and destabilise these regimes, to identify some of the weak points and lines of fracture in our present where thought might insert itself in order to make a difference.

References


Creating a relevant space: 
Evaluating a physical education elective

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In 2003, a new Physical Education (PE) elective was offered to Bachelor of Education (BEd) students at Bathurst Campus, Charles Sturt University. In previous years, these students selected PE electives from the Bachelor of Human Movement (BHM) course which included content such as biomechanics, anatomy and physiology, sports nutrition, conditioning and event management. The BEd students were becoming disengaged with the content of and pedagogy employed to implement these subjects. In response to students’ requests, a PE subject was designed to cater specifically for these generalists’ needs. This paper reports on the design, implementation and evaluation process of this subject.

Introduction and background

This research is a report on the design, implementation and evaluation of a new Bachelor of Education (BEd) Primary and Early Childhood (EC) Physical Education (PE) elective at Charles Sturt University. Until Spring Semester 2003, BEd students selected PE electives from a suite in the Bachelor of Human Movement (BHM) course. As reported by the BEd students, the content of these electives was irrelevant to the K-6 context and academics teaching these BHM subjects modelled a range of pedagogies that would be unsuitable for primary learners. In response to the BEd students’ requests, a PE subject was designed to cater specifically for these Primary and Early Childhood generalists’ needs.

The design of the new PE elective was based on three specific principles:
1. students should be exposed to a variety of content knowledge relevant to the teaching of PE;
2. students should be provided with opportunities to rehearse and refine their pedagogical skills in controlled and safe learning environments; and
3. students should be required to participate in a ‘contextual learning’ experience as an assessment component of the subject.

These principles were informed by the critical literature relating to the teaching of PE in the primary context (Carney & Chedzoy, 1998; Evans, 1990a; Hickey, 1992; Jenkins & Veal, 2002; Kirk, Colquhoun & Gore, 1988; Moore, Webb & Dickson, 1997; Morgan, Bourke & Thompson, 2001; Smith, 2001). Much of this literature clearly identified specific areas of PE content which both pre-service and in-service teachers felt less confident and competent teaching. One factor that limits the scope of PE learning experiences offered to K-6 students is a lack of knowledge of subject matter. For many primary teachers, their tertiary preparation contains limited hours of PE training leading to an inadequate understanding of the scope of PE. Kirk and Gore
(in Evans, 1990b) found most teachers who teach PE seem to be more comfortable with teaching modified games and taking fitness activities than they are teaching dance, gymnastics and aquatics. Evans (1990b) stated that many primary teachers lacked sufficient knowledge to ‘plan and teach a comprehensive PE program, one which covers all the curriculum areas, so, not unexpectedly, they take what they feel most competent to handle’ (p.15). The design of the new elective included eight weeks of face-to-face tutorials in which students engaged in a range of movement experiences. Lectures provided K-6 syllabus content knowledge relating to the areas of dance, gymnastics, aquatics, games and modified track and field.

As well as providing knowledge of syllabus content, it was essential that students were provided with a non-threatening learning environment in which they could rehearse their teaching skills. Housego (1990) suggested that an essential prerequisite of successful teaching is confidence in one’s own ability and equated a pre-service teacher’s acquisition of feelings of self efficacy with feelings of preparedness to teach. This elective was designed to address pre-service teachers’ assumed lack of confidence by modelling and providing opportunities for rehearsal of physical skills in a non-threatening, positive learning environment. The rationale for design of the elective was to assist students to increase their levels of confidence in applying their knowledge of PE and to improve their physical competence. Students might develop the necessary comfort level to apply skills and techniques demonstrated and practised in university tutorials to their future K-6 teaching contexts.

The new elective also provided students with a contextual learning experience. Advocates of contextual learning (Brown, Collins & Duguid, 1989; Lave & Wenger 1991) argue that learning is fundamentally the result of participation in communities of practice. As learning is a social process it needs to be carried out in contexts that are socially meaningful. This notion of socially meaningful contexts highlights the need to create spaces in teacher education subjects for authentic opportunities in which university knowledge and understandings can be practically engaged in a ‘real life’ professional context. Contextual learning can assist students to translate theory into effective classroom practice. Contextual learning provides a situation whereby students make sense of their knowledge by relating it to the multiple aspects of a learning environment (Radloff, 1999). Learning will be most effective and lasting, if it occurs in an environment that makes the learning relevant.

Methodology

This research uses action research methodology (Kemmis & McTaggart, 1991) as it applies a three-step process of planning, action and reflection. As the primary purpose of the study was to plan, implement and appraise a new elective, it was necessary to gather a breadth of data that would fully inform the evaluation. The study employed a mixed-mode approach to both data gathering and analysis. Qualitative data included informal conversations with BEd students, field notes and students’ verbal and written reflections in the form of a peer-reviewed poster presentation of their experiences in the new elective. The formal University Subject and Teaching Evaluation sheets provided both qualitative and quantitative data for the study.
The planning phase of action research cycle, involved understanding the issue, defining the project and determining the measures of the project (Kuhne & Quigley, 1997). In this study, the planning phase (subject design) was informed by dialogues with 3rd and 4th year Bachelor of Education (BEd) Primary and Early Childhood (EC) students who had completed both the mandatory foundation subjects in Personal Development, Health and Physical Education (PDHPE) and a suite of existing electives from the Bachelor of Human Movement course. Each year, approximately 45% of the total cohort of BEd and EC students selects electives from the BHM course. Informal conversations with these students, documented by my field notes, provided insight regarding the content and pedagogical skills that students felt they needed to teach a quality K-6 PE program. These insights were closely supported by the critical PE literature (Evans, 1990a; Hickey, 1992; Kirk, Colquhoun & Gore, 1988; Moore, Webb & Dickson, 1997; Smith, 2001). The subject outcomes (the measures of the project) were informed by this literature and student input. The subject was designed to provide students with the opportunity to:

• apply the theories of children’s physical development to the design and implementation of sequential, age appropriate, challenging, participatory and inclusive physical learning experiences;
• accurately engage with the literacies applicable to the Key Learning Area;
• affirm, celebrate and accommodate the cultural and social difference of their learners;
• develop PE assessment strategies which reflect learning outcomes;
• develop accurate descriptive profiles of student achievement of outcomes; and
• reflectively evaluate teaching and program effectiveness.

The action phase of the three-step research cycle involved offering the new elective ‘PDHPE in Practice’ for the first time in Spring Semester 2003. Twenty one (21) Bachelor of Education students enrolled; eight of these students were from the EC course. There were sixteen female and five male students. This ratio reflects the ratio of females to males in the BEd and EC courses. The elective schedule comprised eight weeks of on-campus face-to-face tutorials and included content relating to fundamental movement skills, safe warm ups, minor and modified games, planning obstacle course, circuits and tabloids, modified athletics, movement exploration in the form of creative dance and exploratory gymnastics, aquatics (water familiarisation) and the nature of the young learner. These content areas were identified in the literature (Carney & Chedzoy, 1998; Faulkner & Reeves, 2000; Hickey, 1992; Jenkins & Veal, 2002; Moore, Webb & Dickson, 2001; Smith, 2001) as those in which generalists felt least confident and competent. The pedagogy modelled in tutorials included strategies suitable for learners in primary and early childhood settings. During these eight weeks, students were required to ‘peer teach’ a small component of the tutorial. This strategy was employed to provide students with the opportunity to rehearse and refine their PE teaching skills. Students’ peers provided constructive feedback relating to each week’s teaching segment. Tutorial pedagogy included modelling and practising those skills most pertinent to teaching PE such as forming groups and teams, instructing, providing feedback, demonstrating, distributing equipment and organising events. A further aim of students’ mini teaching episodes was for students to identify the link between subject knowledge and pedagogy (Shulman, 1987). While the dialogue with students revealed gaps in PE content
knowledge, students also reflected on their ability to apply the knowledge that they had, in a teaching situation.

As an assessment requirement of the elective, pairs of students were allocated to a K-6 context and required to negotiate a focus area for a PE project. Each pair of students was supported by a self-nominated staff member in their school setting. Examples of projects undertaken by the students included organising and implementing a lunch time round-robin Touch competition, demonstrating skipping skills and instructing students in the practice of these for a ‘Jump Rope for Heart’ day, assisting with a ‘Learn to Swim’ programme, designing and implementing obstacle courses, tabloids, relays and races for PE lessons and teaching students with special physical activity learning needs. A focus of the project was for students to identify movement needs of their learners; design a sequence of learning experiences aimed at improving the movement abilities of these learners; and evaluate the success of their project design and implementation. This three-step process created a space for students to practice their pedagogical content knowledge in an authentic setting. The PE project was undertaken by students during semester weeks nine to twelve. This aspect of the action research cycle not only provided data for the study but attempted to empower students in the subject to improve their practice in an educational setting.

As a further assessment component of the elective, students were required to present evidence of the implementation and evaluation of their PE project. The students provided their evidence in the form of a peer-reviewed poster presentation. Posters detailed the PDHPE syllabus outcomes of the project; a description of the learner group; an outline of the area of relevance in the setting; learning experiences developed to assist learners to achieve the stated outcomes; and a project evaluation. This evaluation included feedback from various sources and took many forms, including photos of learners participating in physical activities (parental permission was gained), learners’ stories and drawings about their experiences in the project, reports from supporting staff in the participating K-6 settings, and BEd students’ reflective journals.

As a vehicle for observing the results of the action phase, students were requested to complete formal University Subject and Teaching Evaluation sheets to rate the design and delivery of the subject. The evaluation sheets comprise a range of statements to which students indicate their level of agreement using a continuum from zero to seven (where 7 equates with ‘Very Strongly Agree’ and 0 equates with ‘Very Strongly Disagree’). The subject evaluations also allowed for free response comments from students. This form of data collection was specifically chosen as it is valued highly by the University and if positive student feedback resulted, it could assist in supporting any argument for further electives designed to meet the learning needs of generalist primary students.

**Results and discussion**

The reflection phase of the action research cycle, involved evaluating results of the action and reflecting on the subject design. The results of the University Subject and Teaching Evaluation sheets were extremely positive. Ratings on all 19 Subject
Evaluation and 11 Teaching Evaluation questions were greater than 6.00 from a possible 7.00. Table 1 represents a summary (11 of 19 questions) of students’ responses to the subject design. The remaining eight questions related to library services and physical resources available for implementing the subject.

Table 1. Report on student survey of internal subject ‘PDHPE in Practice’
subject evaluation

<table>
<thead>
<tr>
<th>Statement Posed to Students</th>
<th>Mean Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The objectives of the subject were clearly stated</td>
<td>6.47</td>
</tr>
<tr>
<td>2. Subject content was clearly related to the stated subject objectives</td>
<td>6.47</td>
</tr>
<tr>
<td>3. The various components of this subject were coordinated</td>
<td>6.63</td>
</tr>
<tr>
<td>4. The prescribed texts contributed to my understanding</td>
<td>6.37</td>
</tr>
<tr>
<td>5. The recommended readings helped me in understanding the subject</td>
<td>6.32</td>
</tr>
<tr>
<td>6. The assessment tasks in this subject were consistent with the stated objectives of the subject</td>
<td>6.63</td>
</tr>
<tr>
<td>7. My understanding of the subject has improved as a result of feedback from assignments</td>
<td>6.47</td>
</tr>
<tr>
<td>8. The field trips were relevant</td>
<td>6.53</td>
</tr>
<tr>
<td>9. The tutorials helped me to understand the subject</td>
<td>6.79</td>
</tr>
<tr>
<td>10. As a result of doing this subject I have improved my ability to communicate about is various aspects</td>
<td>6.84</td>
</tr>
<tr>
<td>11. I would recommend this subject to another student</td>
<td>6.95</td>
</tr>
</tbody>
</table>

Student evaluations provided evidence of the effectiveness of the various elements of the subject design and associated pedagogy. While positive feedback may have been predicted given that students were previously disengaged with BHM subjects, it is important to note that students rated the subject content, assessment tasks and the tutorial activities very highly. These results indicate that the conversations with BEd students, the review of literature and the principles developed on which to base the subject (undertaken in the planning phase of the action research cycle), were both necessary and valuable in creating a subject that met the needs of these students.

Students’ open-ended responses on the Subject Evaluation sheet provided further positive support for the relevance and credibility of the new elective. Examples of student feedback regarding the subject design included statements such as:

‘Fantastic subject! Soooo relevant and useful for teaching. Assignments were purposeful’
‘This class has been the most useful, enjoyable and relevant subject that I have taken in my whole time at uni’
‘This was an awesome subject – very well designed!!!’
‘I found this class was extremely helpful, it was practical and for once I think the content will actually help me in the real world of teaching’
‘I couldn’t possibly express my admiration for this subject in words’

Student feedback provided clear support for the on-campus face-to-face tutorials. When responding to the Subject Evaluation statement ‘comment on two aspects of the
subject which you found helpful, useful or particularly good’, the students responded with statements such as

‘doing the practical activities in tutorials’
‘the practical nature of the tutorials’
‘doing the different activities that were very practical and real’.

Students’ feedback also highlighted the value of the PE project assessment task, including comments such as;

‘schools really enjoyed having me and were very excited and grateful for the opportunity’
‘going out and teaching in the schools was the best part’
‘there was a direct link between what was taught in tutorials and what we had to do in schools in our project’.

Students clearly appreciated the relevance of the assessment tasks and the contextual learning experience. These aspects of the subject will remain in the subject design for 2005 with minor modifications gained from students’ feedback following. Relating to the statement from the Subject Evaluation sheet, ‘comment on two aspects of the subject which you would like to see changed’, students identified examples of organisational ways to refine the PE project; altering the timing of the project, conducting the project in schools closer to the university and participating in a ‘mid-project’ meeting with the class to discuss each pair’s progress. These suggestions will contribute to the spiralling reflective and planning action research approach to (re)designing and implementing this elective.

Similarly, feedback on the Teaching Evaluation sheets affirmed the selected pedagogical approaches to the subject. Students’ comments focused on their

‘appreciation of the peer teaching opportunities’
‘support for all the practical ideas and activities’
‘appreciation of the practical was a useful tool in gaining knowledge and confidence in teaching the subject’
‘enjoyment of the variety of information and strategies that were relevant to schools and teaching’.

As previously stated, students were required to prepare an evaluative poster presentation of their PE project experiences. The marking criteria for the poster identified the need for students to reflect on their in-school PE project experiences and suggest recommendations for future improvements of this aspect of the subject. Data from these posters and students’ oral comments highlighted their overwhelming support for the school/university links.

‘Being able to go into schools was the best way to learn to teach PE
‘The project was a real eye opener and gave us a chance to test our skill and imagination’
‘I gained knowledge and confidence in teaching this subject’
‘I loved the teaching project. It really made me feel like a real teacher’
Conclusion

Feedback obtained from this research provides valuable data regarding the success of the selection of principles on which the subject design was based. As part of the cyclic approach to action research, this feedback will inform the (re)design of the subject for the 2005 elective cohort. The PDHPE in Practice subject evaluation identifies the need for a PE elective that is contextually relevant and provides the opportunity for students to not only improve their discipline knowledge, but apply this knowledge with pedagogical skills appropriate to the learner and the learning environment.

References


Integrated classrooms in tertiary educational settings

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This paper tracks the development of an authentic integrated learning experience in the areas of English and Science. It discusses the design of a common assessment learning experience and how this small step led to increased professional dialogue including: the sharing of philosophies and approaches considered ‘best’ practice; enhanced professional background knowledge; a ‘real’ model of teacher planning processes; and explorations into how English can be effectively linked to key learning areas in ways that make outcomes more meaningful. The journey, ‘warts and all’, is followed through to the current ‘state of play’.

Although the concept is not new to education (Dewey, 1966; Fogarty, 1992; Gardner, 1983; Piaget, 1971; Vygotsky, 1978) the impact of integration on schools has far outweighed its impact on university programs. Traditional methods of teaching in the tertiary setting have tended to focus on propositional knowledge (Wideen, Mayer-Smith & Moon, 1998) and, it has been argued, need to be replaced by active, experiential, and context-specific activities (Ramsden, 1992). Shanker (cited in Bristor, Kinzer, Lapp & Ridener, 2002, p 2) has spoken strongly against teacher education programs that present “knowledge in a piecemeal and disconnected manner…[where] Theory is unrelated to practice; content knowledge is disconnected from teaching methods; [and] instructional practices are unrelated to learning and development.” These accusations of disconnection may account for some of the difficulties of teacher educators in their work with pre-service teachers.

For some student teachers, the professional inconsistency between espoused theories and the pedagogical practices of their teachers is frustrating at a time when they are struggling to make sense of the ideas presented: “sometimes I go to class…and I don’t see how it could possibly help me when I go to teach it.” (Munby, 1994, p. 91). This perception, strongly supported by other researchers (Bristor et al., 2002; Cook, Smagorinsky, Fry, Konopak & Moore, 2002; Timmerman, 2003), provides some insight into the reasons why student teachers move away from the theoretical constructs which are meant to inform pedagogical decision-making. Faced with a choice between implementing ideas that haven’t been modelled for them, or assimilating the existing practices of their new school, student teachers “…gravitate to the values of the schools which provide the site for the ultimate judgement of their competence as teachers,” (Cook et al., 2002, p 3). This can often lead to a second issue for teacher-educators.

There is evidence of a gradual diffusion of theoretical constructs as student teachers move from the university environment into the practical environment of schools (Cook et al., 2002). Radical constructivist perspectives of knowledge formation can illuminate this issue through the notion of ‘viability’ (Von Glaserfeld, 1990); this
recognises the need for individuals’ constructs to ‘fit’ with their experience. If students haven’t developed the skills to make an approach ‘work’ it may lack viability in their ‘real’ world of practice thereby relegating it to the theoretical world of the academic.

This perceived gap between universities and schools is not limited to the theory-practice gap. Research suggests a further lack of congruence with respect to “…goals for schooling, expectations for the kinds of learning that benefit students, agency expected of teachers as curriculum developers, social practices expected to promote learning toward educational goals, and the means through which their students acquire and represent academic knowledge,” (Cook et al., 2002, p. 3). These differences may serve to degrade belief in the content of teacher-preparation programs.

If student teachers are to utilise theoretical knowledge to gain perspective on their professional practice and educational decision-making, teacher education programs must reflect more closely the world of the practicing teacher and take a more proactive role in demonstrating the application of theoretical knowledge.

This paper discusses our journey as we attempted to justify, plan, prepare and implement an integrated science and language learning experience. It results from our beginning attempts to address the perceived dichotomy of theory and practice, to facilitate the development of more powerful constructions of pedagogical practices and to provide ‘real’, active and context-specific learning experiences.

**The reasoning**

The impetus for us to align our tertiary practices and school-based practices began as a result of two separate events: our preparations for the design and writing of a new Primary to Middle Years program; and informal discussions of school-based integration projects between a number of the staff of the education program. The design of the new degree acted as a catalyst supporting professional observations of the need for change.

Throughout the design of the new degree, considerable professional dialogue took place as each member of the education team critiqued and edited each other’s courses. This exposed the similarity between different discipline areas in terms of content, teaching strategies and assessment tasks. Our reasoning for trialing the integrated learning experience fell into three main areas: a new state policy on education; the development of the new teacher-preparation program; and our perspectives of ‘best practice’.

**Curriculum framework**

Statewide implementation of the Curriculum Framework contributes to the local context for Western Australian teacher-preparation programs. The Curriculum Framework is the mandated policy document for all schools in Western Australia – full implementation is scheduled for 2006. Underpinned by seven key principles, the policy outlines the philosophical basis of the Framework: an encompassing view of curriculum; an explicit acknowledgement of core values; inclusivity; flexibility;
integration, breadth and balance; a developmental approach; and collaboration and partnerships. The WA position on the concept of integration is clear:

> Effective education enables students to make connections between ideas, people and things, and to relate local, national and global events and phenomena. It encourages students to see various forms of knowledge as related and forming part of a larger whole. While opportunities to specialise must be provided to allow for specific talents and interests, all students need a broader grasp of the various fields of knowledge and endeavour. They also need experience in building patterns of inter-connectedness which help them to make sense of their own lives and of the world. (Curriculum Council of Western Australia, 1998)

The new degree

Staff in the education program of the Faculty of Regional and Professional Studies at Edith Cowan University are currently involved in writing a new teacher preparation program. A central focus of this degree is a move towards developing understandings of integrated pedagogical practices. Our attempts this year represent a trial to inform both the design of the new degree and the future practice within the education program. In a report outlining National Standards and Guidelines for Initial Teacher Education (Australian Council of Deans of Education, 1998), the Australian Council of Deans of Education (1998) explicitly recognise the need for all graduates to:

> …know and understand that literacy is integrally related to learning in all areas of the curriculum and enables all individuals to develop knowledge and understanding (Australian Council of Deans of Education, 1998, p12-13)

Feedback from an Industry Consultative Committee and previous graduates suggested a need to specifically target and prepare future graduates for likely appointments to regional, rural or remote environments. Schools located in these areas may often be structured heterogeneously (ie multi-age groups and multiple ability levels) and find themselves subject to multi-cultural influences. Educational decisions are significantly affected by the context in ways that are not immediately obvious to new teachers used to urban settings. In preparing our graduates for such positions the need to integrate becomes a central concept. Conscious of the need for students to develop conceptual understandings of integration along with the practical skills to ‘make it work’, we planned to provide student teachers with experiences that modelled and supported the development of these skills.

Best practice

One of the purposes of attempting the integrated learning experience was to address concerns over the theory-practice gap. We do not regard theory and practice as polar opposites but, rather, alternative lenses through which the practicing teacher can focus when attempting to make educational decisions. The highly complex nature of teaching and learning, and the barrage of decisions that practicing teachers need to make, require an ability to ‘reflect-in-action’ in a way that combines the ‘convergent’ nature of theoretical knowledge with the ‘divergent’ nature of practical knowledge (Schon, 1983). Theory perceived as impractical by student teachers does more harm than good providing a negative ‘background knowledge’ through which future
professional learning is viewed: “the most fundamental quality of a powerful construction is that students must believe it,” (Confrey, 1990, p. 4).

A second issue for us, with respect to best practice, was the idea of modelling. Bristor et al.,(2002) assert most pre-service teachers will either teach as they were taught, or in a style similar to their supervising teacher. It seemed to us that if we advocate the importance of teaching in a way that promotes the connections between Learning Areas we should model ‘best practice’. This would be a first step in enabling student-teachers to construct understandings of what it might mean to integrate learning experiences. The opportunity to experience the power of connected ideas rather than a piecemeal accumulation of ‘facts’, we felt, would go someway to addressing the concerns of Bristor et al., (2002) and Ramsden (1992) mentioned earlier. Additionally, primary school teachers need to teach and assess in as many as seven of the eight Learning Areas. Concerns over a crowded curriculum and the need to make learning experiences more ‘connected’ support an argument for integrating traditional subjects. It would appear to be becoming a necessary ‘survival technique’ that teachers need to develop.

The importance of language development for developing subject understandings has been addressed in the research literature (Driver, Asoko, Leach, Mortimer & Scott, 1994; Pereira, 1996; Von Glaserfeld, 1999). The language of science is heavily laden with discipline-specific definitions and symbols: “…a social constructivist perspective recognises that learning involves being introduced to a symbolic world…[that] Learning science involves [young] people entering into a different way of thinking and explaining the natural world…” (Driver et al., 1994, p. 7-8). We contend that an understanding of the role of language in the development of conceptual understandings is central to educators and, consequently, a requirement for pre-service teachers.

Models of integration

Opinion on what constitutes integration is varied. Pigdon and Wooley provide a definition that summarises our perspective for this trial:

In essence, integrating the curriculum involves the integration of content and process. The content subjects are essentially concerned with ideas about how the world works. The process subjects offer a range of ways of allowing us to represent how we see and make meaning of our world (real or imagined). .(Pigdon & Wooley, 1992, p. 7)

This definition reflects a philosophy that we wanted our students to understand. The reasoning behind our choice to integrate has been highlighted throughout the paper but, in general terms, we wanted student teachers to experience the benefits of integration through the eyes of a learner as well as a facilitator.

As with definitions of integration, the research is prolific in its descriptions of models. Fogarty (1992) has identified ten models of integration organised along a continuum from ‘no integration’ through to extreme focus models such as that experienced in a Doctoral study. Fogarty used the following descriptors to outline his framework of models: Fragmented (traditional subject/disciplines), Connected (discipline content is
internally connected throughout schooling, e.g., curriculum mapping); Nested (within each subject area the teacher targets key areas such as social skills thinking skills & content specific skills); Sequenced (topics or units of study are rearranged and sequenced to coincide with one another - thematic approach); Shared (disciplines with overlapping concepts and skills); Webbed (thematic); Threaded (meta-curricula: threads thinking, social and study skills e.g., Multiple Intelligences and technology through disciplines); Integrated (interdisciplinary, overlapping topics); Immersed (the disciplines become part of the learner’s lenses – filters all content through this lens eg Inquiry Approach); Networked (learner works with experts on a needs base).

The Integrated model best ‘fits’ our trial and is characterized by an interdisciplinary approach; concepts and skills overlap and team-teaching can occur in an authentic model. We had identified common theoretical, conceptual and practical perspectives. The theoretical perspective was that of constructivist theories of learning; conceptual perspectives were evident in the use of language as a tool for thinking and learning; an experiential approach to teaching and learning provided a practical perspective.

**The process**

*The early stages*

Our initial discussion revolved around the connections between the two units we were scheduled to teach. In a series of meetings the natural links between the two units seemed to ‘fall out’ of our discussions. We decided on an approach that emphasised certain key points: the conceptual depth of language; the relationship between language development and social constructivist perspectives of ‘science as enculturation’; the role of questioning as a pedagogical technique; and lesson structures.

*The plan*

The learning experience required student teachers to design activities for a science activity day at a primary school. They examined the language and conceptual loads on students according to the ‘phases of development’ (Curriculum Council of Western Australia, 1998). Lessons were to be activity based, informed by constructivist perspectives, and structured with an awareness of the role of questioning in exploring and guiding student progress. This was followed by the design of a language experience activity building on the science lesson and addressing language aspects originating from the lesson. A Reflections and implications essay completed the learning experience. The essay included a requirement to analyse the effectiveness of their own language/questioning skills according to a number of theoretical perspectives presented in their Language coursework (Muspratt, Luke & Freebody, 1997; Tough, 1977).

*Results and discussion*

Student response was varied. There appeared to be resistance to the ‘new’ ways as students struggled to make sense of the assessment pieces. One student explained the concern that others were feeling: “It’s $700 of our lives!” We were brought back to
reality and the perceived role of teacher-educators as gatekeepers for the profession. Ultimately, a number of students showed greater concern for this aspect of our role than that of supporting them in their preparation for professional practice. This is not altogether surprising for a number of reasons: the ‘credentials’ constituted a greater need according to Maslow’s hierarchy; and secondly, we were introducing them to educative practices absent in other areas - why should they be the guinea pigs?

A second issue related to a perceived increase in difficulty. A number of students told us that the integrated learning experience was significantly more difficult, that it was easier to concentrate on separate units of science and language. This is not surprising as it was our intention to facilitate the development of more ‘powerful’ constructions. Confrey (1990) has discussed the difference between ‘weak’ and ‘powerful’ constructions of knowledge suggesting that weak constructions lack internal consistency and range of application and typically result from programs that expect short answer responses rather than deeper process oriented answers. Powerful constructions, on the other hand, are typically characterised by a number of features that tend to be less isolated and less formalised from the rest of experience. Pertinent to our discussion, these include: integration across a variety of concepts; convergence among multiple forms and contexts of representations; an agreement with experts; potential to act as a tool for further constructions; guide for future actions; and ability to be justified and defended (Confrey, 1990). It may be that the difficulty the student-teachers perceived resulted from a need for them to ‘work’ with the concepts.

However, not everybody focused on the difficulties. Some students felt that this was the ‘way to go’. Often these students were the ones that had greater exposure to school environments and were familiar with current issues and directions in schools. Still other students felt that the approach taken this year was more in keeping with the theoretical ideas we were espousing: a closer alignment between theory and practice. One student telephoned to query the reflective essay as she ‘had to be doing something wrong!” She found that the ideas and pedagogical approaches for language and science were related and as she focused on one she was answering the concerns of the other. This, we believe, has the beginnings of a powerful construction.

Student quotes:

..analysis of the concepts and skills of both language and science …showed [that] all of these aspects are important in designing and teaching activities for students…It helps the teacher understand [the difficulties] students will experience…and assists the teacher to expand the student’s thinking…

…[When] we initiate questions they apply to both science and language…you cannot function without [an understanding of] the language strands in any curriculum…

…learning cannot be pigeon-holed into separate and distinct subjects. Integration…presents directly to the way that children learn, not in distinct and specified timeframes, but constantly…

The trial had the added advantage of providing a structural need to engage in professional dialogue. Our work has helped to begin dismantling the artificial separation of ideas resulting from the ‘unit’ approach of university structures. We have discovered a number of commonalities in our individual approaches and beliefs that have served to provide a basis for further collaboration.
The politics of change

As the semester progressed, we began to come across a number of issues that made the approach more problematic than it had first appeared - the integrated teaching experience was received differently by both our students and our institution. The innovative approach that, we felt, should better prepare our graduates for the ‘real world’, came face to face with the real world.

As discussed above, student response to the learning experience varied and, in some cases, didn't reflect our expectations. Tertiary institutions, as research organizations, have a ‘futures’ focus, and consequently a responsibility for the development of ‘better futures’. For some students, however, contextual concerns may be driven more by the need to obtain the ‘credentials’ than achieve the skills. The interests of concerned parties are not necessarily aligned. The question then remains ‘what?’ and ‘for whom?’

Taylor (in press) has discussed the effect of teachers’ transformative practices and students’ responses. He suggests that the initial resistance of students can develop into ‘counterproductive hostility’. Taylor argues that there is a need to maintain an ethic of care when attempting to change beliefs and belief systems. When the practices being advocated by a teacher are significantly distanced from those of the students they may ultimately believe that they aren’t learning anything: “At the heart of their discontent was a belief that they were not learning science,” (Taylor, in press, p. 7).

A second set of issues related to the operation of the university itself. Concerns were raised that our structure for the assignment constituted ‘double dipping’, ie that students were credited twice for the same piece of work. We both felt that if the work demonstrated the understandings that we were assessing, there shouldn't be a problem. In fact, we were modelling exactly what is being asked of teachers in the Curriculum Framework. This appears to be a structural impediment to our model of integration.

Another issue revolved around the legal issues of equality. Some students had taken the language unit the previous semester, as mid-year intakes. To us, this appeared to be an advantage; having completed the unit students should have a much better understanding of the content covered. A number of these students, however, considered it a disadvantage. They were not participants in the discussions that took place in Language this semester, and consequently, not part of the social construction of the task. This, they argued, served to disadvantage them in completing the assessments.

Where to from here?

Our attempt to integrate language and science units in a single learning experience was driven partly as a trial of the approach underlying the new degree planned for 2005. We have gained from the experience and have begun to discuss the findings of this research with our colleagues. We are encouraged by the responses of some students, challenged by the responses of others and enjoying the development of stronger collegial practices. Simultaneously, we are struggling to come to terms with
the assumptions underlying our own practice and find ourselves considering how we can:

• balance the implementation of unfamiliar approaches with an ethic of care
• extend the notion of integration throughout the new program
• bring together institutional policy with assessment reform initiatives
• increase opportunities to link theoretical approaches to practical realities in school environments.

References


Defeating the tyrant of distance for academic high achievers in rural New South Wales

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School of Teacher Education, Charles Sturt University

Three educators from Charles Sturt University became involved in a project to cater for academic high achievers, from a group of small rural schools. Our expertise in mainstream classroom teaching, emergent curriculum, gifted and talented education; technology and curriculum development were used cooperatively to plan and implement an innovative program. This paper is a reflection on the planning, organisation, curriculum, pedagogy and subsequent issues that arose during the program. Concerns and issues include: collaborative practice, best practice for high achieving students, emergent curriculum in the primary setting, student’s ability to engage in higher order thinking and program organisation.

This is the recount of a special extension and enrichment program that was organised and conducted for upper primary aged (10 to 12 year old) students of schools in a rural area in New South Wales. In narrating this story, we will talk of a number of actors, how and why the program came to be, what we did and what we noticed and learnt. We end with what we would do next time as recommendations for future academic challenge programs in rural areas.

How and why it came to be...

Students who attend rural and regional schools are as diverse in their abilities as students in metropolitan centres, yet it is mostly the metropolitan centres that have the population base to provide programs for students for remediation, enrichment and extension. In country areas, where there are limited numbers of students spread over vast geographic areas, it can be difficult to organise programs, either within or between school, to cater for the specialised needs of students who display special gifts or talents in academic areas. The excitement, challenge and stimulation of the gathering of like minds can be replicated to some extent when younger students work with older students, but when students in rural schools reach the upper grades, the opportunity to converse, be stimulated by, argue with, present and justify with becomes harder as like minds become more difficult to find because there simply isn't the population available. The NSW Department of Education has a policy that specifically states its aims as:

“to achieve educational equity and high quality outcomes for all … students, regardless of race, gender, socioeconomic or sociocultural backgrounds, and to ensure that these students are extended and enriched throughout their schooling.” (NSW Department of School Education, 1991, Forward)
If equity is given for students of diverse race, gender, socioeconomic or sociocultural backgrounds, then it also follows that we should not discriminate on geographic grounds.

The program we recount was conceived and implemented to provide equity for rural students in accordance with this policy. Its aim was to provide social and academic extension and enrichment for identified students in a specific rural geographic area.

We refer to the program as Gold Country Academic Challenge Program (GCACP), as it was located in a specific rural area, drawing students from 5 different schools who had been screened for invitation by a mass academic achievement test. This was initiated and managed by the Organising Principals, who then approached a member of the team about curriculum development, teaching and managing the program. The team consisted of Vickie Vance as the program facilitator with Lynda Ireland and Lucie Zundans as professional mentors in respective areas of expertise.

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On receiving the invitation to facilitate the GCACP, Vickie identified the opportunity to collaborate with other colleagues at Charles Sturt University. We thought this would be beneficial to our individual professional development, the students and the program. It was envisaged that such an arrangement would combine a range of specializations and expertise required for the program. As professional colleagues, we (the authors) were all keen to experience teaching ‘back in the classroom’ as well as the opportunity to incorporate different teaching and learning models including higher order thinking, emergent curriculum and curriculum differentiation. The challenge was to make these approaches appropriate for a primary education setting and for this group of students with particular learning needs.

What we wanted to do and what we did…

The pull-out program is one of the most common forms to cater for the needs of academically able students. Within this model, students are withdrawn from their regular class and go to a special teacher for a number of hours. (Piirto, 1999) For the GCACP, students were withdrawn from their home-class (and indeed home school) every Friday for 15 weeks. Cox, Daniel and Boston (1985 cited in Piirto, 1999 p. 68) see pull-out programs as ‘patchwork’ and “fragmented” a view supported by van Tassel-Baska (1994) who believes this method severely limits the potential delivery of services to academic high achievers. Even though criticism of the pull-out program is
quite substantive, it is still the most popular option for catering for the needs of academically able students.

One of the first and key considerations was the physical placement of the program. It was determined that the program would be held in the local secondary school which is centrally located in relation to the students’ home schools. This was done for a number of reasons: to promote the secondary school as a viable feeder school option for these students, to avoid promoting a particular primary school as specialising in academic high achievers and to be as equitable as possible in terms of travelling distance for each student.

After resolving location issues, our focus turned toward the curriculum and pedagogical approaches that were appropriate for such a program. Treffinger, Feldhausen and Isaksen propose the comprehensive model as a teaching framework with the inherent belief that:

“This model is based on a conception of foundation skills (knowledge base, motivations and dispositions and metacognitive skills), tool skills (creative and critical thinking) and complex cognitive operations (problem solving and decision making).” (1990 cited in van Tassel-Baska, 1994, p. 371)

This model resonated with us as it incorporated a number of features we believed to be essential to the enrichment of the learning experience for these students.

One of the other pedagogical perspectives taken was that of emergent curriculum is not a new term in early childhood education. Betty Jones in Jones and Nimmo (1998) explains that it describes how the curriculum emerges from the daily life of the adults and children in the program, particularly from the children’s interests, as well as the teacher planning that is involved in the process to ensure important learning outcomes for the child are met. Interest in the Project Approach as an interpretation of emergent curriculum has continued to develop within the early childhood field over the last ten years, particularly as educators are inspired by the innovative curriculum extended to children from the Italian city of Reggio Emilia and the discussions by prominent early childhood philosophers Lillian Katz and Sylvia Chard (1989). The Project Approach offers opportunity for children to engage in investigation of learning tools, interactions with others and the content knowledge in a way that the student retains control of their own learning and experience. The Project Approach can be defined as:

“...an in-depth investigation of a topic worth learning more about. The investigation is usually undertaken by a small group of children within a class, sometimes by a whole class, and exceptionally by an individual child. The key feature of a project is that it is a research effort deliberately focused on finding answers to questions about a topic posed by either the children, the teacher or the teacher working with the children.” (Katz, 1994, cited in Helm & Katz, 2001, p. 1)

In any class of students the range of interests is likely to be very varied. Interests depend on previous knowledge, the environment, personal interests and individual curiosity of the student. In accordance with the Project Approach philosophy, the interests of the students must guide curriculum. For the GCACP group, students completed an individual survey of interests, which we then used to focus discussions within and between small groups of the students. We used this method to actively
engage the students in the process to confirm, expand and/or collapse individually identified topics to determine topics that would encompass the diverse range of interests revealed by the whole class of students. We used this as a learning exercise in itself. The students were encouraged to divide into sub-groups where similar interest areas were identified, shared and discussed. All the groups came together and shared their information for the class as a whole. A number of suggestions were put forward by students and teachers and then the class decided democratically on a topic that had the potential to encompass as many interests and questions as the students themselves had identified. From there, small groups and individual students wrote their own specific research question around the general topic of ‘War’.

Our GCACP students, in some cases but not all, were able to grasp basic principles more quickly so a conscious decision was taken to incorporate the foundation skills mentioned previously into the guided discovery process rather than teach them explicitly. While we speak of foundation skills and the students as a whole, we actually allowed students to discover the need for foundation skills on an individual and as-needed basis, which came from their individually authored research question. We felt that by doing this, we were adhering to authentic learning principles, which we believe include self-motivation and management of learning.

We incorporated a variety of strategies suggested for a differentiated classroom (Piirto 1999) including: use of technology, learning contracts, tasks and product design with a multiple intelligence orientation, group investigation and product rubrics. Students were engaged in both individual and group projects at different times throughout the duration of the program.

The learning environment was structured in such a way to encourage group work and discussion. It was important to arrange and consider “…classroom physical and psychological climates to enhance learning.” (van Tassel-Baska, 1994 p. 374) The tables were set up in group formation with a line of desks against two walls which stored computers. This allowed students to move from group tasks to individual tasks without disrupting their peers.

Authentic assessment was incorporated as it matched the philosophy and outcomes of the program. This assessment process is seen as an ‘evaluation of students’ products, performances, and achievements that have meaning in real life outside of school and that are not simply classroom exercises.” (van Tassel-Baska 1994 p. 375) In our circumstance, we believed evidence of skill could be observed while solving real problems, carrying out research projects, preparing a presentation and further independent research. The projects completed by all students provided information regarding the mastery of principles, concepts and skills. The projects culminated in a presentation to the class and were displayed and explained again at an open day where families, home-school class teachers and principals as well as friends were invited to attend.

In summary, we believed the combination of the Project Approach, the comprehensive model and curriculum differentiation principles in this program was a way in which we could meet the following goals:
• Encourage deep investigation on an authentic topic of interest which could be pursued over the duration of the program
• Each student be given the space to work to his/her own level of ability, encouraging each individual to ‘fly’ to his or her capacity.
• Encouragement of group work to offer opportunities for like minds to share ideas, problem solve, listen, engage in collaborative learning and build social skills with peers.
• An in-depth project to develop new skills in research, synthesis of information, critical thinking and documentation. Representation of learning should not be limited and encouragement for creative mediums provided.

What we did…

Apart from special events (first day, excursion, display day and evaluation day) each day of the program was structured into three sessions that paralleled the sessions of school timetabling. The morning session emphasised social aspects of the program, the middle session was devoted to research and the final session to creative and social pursuits.

Activities included drama and art, and were a mix of individual and small group work. The last ten minutes of each day was a reflective journal entry where students were asked to reflect on the day, it’s activities and analyse themselves and their performance, attitudes and emotions, with a forecast as to how this might be useful information for the future – ‘what, so what, and what now’ was the guiding format used.

In-between weekly sessions, students were provided with an internet-based email account and the class as a whole with a closed electronic forum and website, using Yahoo groups. Students were encouraged to email each other and Vickie, Lucia and Lynda with issues, questions or for purely social purposes. Vickie took digital photos of most days and posted these to the forum website to encourage students to visit the website during the week.

Lynda and Lucia took the roles of mentors, particularly in the Project Approach and differentiated curriculum areas respectively. This was a transparent process to the students and they regularly visited the class on a number of occasions together and separately. During these visits Lucia and Lynda were able to observe first hand what was going on, discuss individual student’s progress with Vickie and became another pair of eyes and ears and hands to help out with the students’ projects. The three of us regularly had informal discussions about the curriculum planning and progress of students throughout the week. As Vickie was not a part of any particular school collegial group, she had little professional support, however Lucia and Lynda’s support sought to alleviate some of the isolation. For Vickie, this mentoring arrangement was collegial support but also offered a means by which she had to articulate her decisions consciously to knowledgeable observers and participants, assisting in the transparency of the whole project.
What we noticed…

From the first day that students arrived at the program, we as a teaching team observed and discussed our observations with each other. The issues we unpack in this section were noticed by at least one of us and explored between the three of us over the period of the program. The issues we noticed can be broadly categorised as situational, managerial, participatory, curriculum and pedagogical.

Social dynamics

There were some unique social aspects to the group. The first aspect which struck all of us, was the close knit school groups that arrived at the program. The largest school group came from the largest school in the program and they had a very dominating effect on the rest of the program members, despite a good number of students knowing each other through family and sport contacts. This became one of the major social outcomes planned for the group – to have the students comfortable in group work with members from other schools. This then helped structure some of the more structured activities planned in the first weeks. This outcome was certainly achieved amongst the boys of the class, although less successfully amongst the girls, predominantly because there were fewer opportunities to mix the group due to minimal numbers.

Communication

There were more stakeholders in the program than in traditional classroom situations. Vickie and the students are obviously central figures, however there were five home-schools, some with principals and class teachers to keep informed, there were the organising principals and the principal of the high school, and of course, parents of the students. Vickie felt it very important for all stakeholders to be kept informed of the events and plans of the program via newsletters sent to parents via students and faxed to all home schools for principals to distribute to class teachers. An electronic closed forum was also set up to enable messages to be sent to students between weekly program days for administration but also social aspects.

Despite electronic communication methods, newsletters to schools and parents, there appears to have been problems with communications between homes, home-schools and ACP. This was evident on a number of occasions – the excursion, project work and student welfare. We have no suggestions here, perhaps location within one participant school may solve this, as there would be a home school that was more immediate in the situation.

Within the program there was an inbuilt expectation that the various home schools would be willing to support the students as much as possible. One of the key ways this was meant to occur was through the allocation of class time during which the students could work on their GCACP projects. During the period of the program we discovered that this was rarely occurring. In some instances students, were expected to ‘catch up’ on any missed work from the previous Friday, which created additional stress. As Davis and Rimm (1989, p. 131) noted in their research “friction often
develops when teachers are saddled with the dilemma of permitting students to miss important content or else forcing them to make up missed work – thus punishing them for their participation.”

Location

The use of the secondary school and its Library Annexe room created a number of challenges ranging from physical areas in which to hold sessions, access to resources and storage of student work. The annex to the library was sufficient for our needs with seven computers and the use of the room for the whole day, however was not conducive to the use of creative and artistic materials (paint, modeling etc). We were not refused access to any high school facility however the logistics of high school timetabling and security made access to areas outside of the Annexe room difficult.

The major problem with the location was the insecurity perceived by students in the secondary school setting, females particularly felt uncomfortable in the playground. Vickie resorted to remaining ‘on duty’ the whole day in the Annexe room – giving students the choice of whether to go out to the playground or remain in the room with her. As soon as this choice was offered many students took the Annexe option and the group become more settled as a whole. We felt that of all issues identified through our observations, this was the most threatening to the success of the program. Students of any age and gender need to feel comfortable in their environments before a conducive learning environment is created.

Curriculum and pedagogy

Curriculum and pedagogy were issues in this program, and we hypothesise that the difficulty may directly relate to selection of participants in the program. While there were numerous activities included in the program, the focus was on the major research project. The theme of war was democratically determined as a topic that could encompass the majority of individual interests – historic, social, and mechanical amongst others. Once the topic theme was chosen, students had free reign to decide on a research question. Topics were as diverse as there were numbers of students in the program. As long as the research question was framed reasonably well, and there was articulation of synthesis into a finished product, Vickie’s role was in a management capacity. Student knowledge was gained individually and on a need to know basis relating to the project. This required students to be able to articulate their interests, plan and manage their learning and develop the ability to reflect on planning, management and ability to progress toward the end product. The process required risk taking and the ability to become an active participant in self-learning. A number of students found this process and the responsibility for self direction and management difficult, many constantly trying to shrug responsibility by not taking materials home, forgetting to bring them to class, and complaining about the topic that had been democratically decided upon by the student body of the program – something they all participated in.
Participants

Other students reveled in the depth, creativity and freedom of choice to pursue personal interests. Without knowing individual student test scores or other qualitative data, we suggest that the majority of those that persevered and produced rigorous pieces of work were at the upper end of the spectrum in terms of ability. If such a program is for the academically able to extend and challenge them, it may be considered outside the achievable for those that are not as academically able. This needs to be considered in future programs when numbers versus ability is being considered. The well regarded researcher and writer on Gifted Education, (Aaron) Harry Passow is attributed with the questions: Can everyone do it? Would everyone want to do it? Should everyone have this experience? If the answers to these questions are yes, then the program is not for the gifted but just good teaching practice. GCACP was to be more than good teaching practice and therefore the variety of achievement and drop-out rate is reasonable although not comfortable. Taking a program to a two term format, putting in place more structure for foundation skills in the first term with progressive movement to independent study in the second term would assist younger and less academically able students to cope with such a program. It would not alleviate some dropout and non-performance.

What we would do next time...

Has the program been successful? Watching the students explain their work at the open day, ask questions of others students and take pride in their program has to lead us to answer yes. There appeared genuine pride in showing teachers, parents, siblings, relatives and friends what had been achieved over the 15 weeks. Individual discussion with parents suggested that most students had benefited from attendance – benefits included self-esteem, social and academic achievements. Some parents felt a total turn around in the attitude their child had toward learning and school, which they attributed directly to the program.

Feedback from the student group indicated that the social and academic outcomes were achieved from the student perspective. The majority of students indicated they would recommend similar programs to other students and would themselves like to participate in a similar program. However there is never a ‘perfect’ program. Should such a program be repeated, we believe some fundamental modifications would improve student and facilitator experiences for the better.

Terms three and four are very busy terms generally, but particularly for senior members of the school in sport or other representative teams. Not to mention excursions away from home. The frequent absences of numbers of students proved difficult and often hindered group and individual progress. Changing the timing to terms two and three would alleviate some of the end of year business.

The structure of the program once per week for 15 weeks could be improved. In this program, it took until about week five in the first term before the group starting to form cohesively and individual school groups broke down. An initial start-up phase – three days in one week at the beginning would also be of great benefit for foundation
skill development, as this time it was two steps forward and one backward for a considerable portion of term three. Being more strategic with length and timing could help, for instance an initial intensive start-up week and once a week for two terms excluding the first and last weeks of the terms – this would still equate to approximately 20 days, but cater for excursions, early holidays and the like.

Questions that remain unanswered in our minds, and that we believe are worthy of further investigation, include whether these issues (the situational, managerial, participatory, curriculum and pedagogical) were due to the rural environment that the students came from – particularly the very small schools. In keeping with the title of this paper, another question is whether we defeated the tyrant of distance or whether this in fact amplified the issues we observed. A comparative study in a metropolitan environment would assist in finding the answer to this question and demonstrate whether these issues would remain in a pull out program where students were distributed amongst a number of metropolitan schools, congregating in a local high school zone.

References

Perceptions of reality: Meeting the challenges of establishing a new teaching degree

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Establishing a new undergraduate teaching degree in middle schooling that will produce teachers to work across primary and secondary sectors is challenging. The mere suggestion ignites discord and debate to existing concepts of what it is to be a teacher. The debate in the literature regarding middle schooling has identified several key factors in the need to adopt different approaches to the teaching of young adolescents. In response to such research, the recently introduced Bachelor of Education (K-12 Middle Schooling) degree at Charles Sturt University aims to make graduates aware of adolescent issues and respond with appropriate and engaging pedagogies. Despite research and departmental reports emphasising the need for such expertise, the possibility of teachers able to traverse two educational sectors is a significant challenge to bureaucracies. The aim of this paper is to explore the difficulties in establishing this degree and the process of acquiring accreditation from two state government education departments.

It is impossible to really know what the world is going to ‘look like’ in the lifetime of students, either in the local or global sphere. The most confident prediction that can be made about ‘the New World’ is that it is likely to be fragmented, inconsistent and complex. Such a context will demand from educators, the skills of flexibility and adaptability, unbound by uncritiqued conventions. Nevertheless, current educational reform programs appear to maintain rigid and single dimensional approaches to change underpinned and driven by rationales of accountability with the view to compliance and subsequent conformity, as identified by Apple (2000)

A new set of compromises, a new alliance and new power bloc has been formed that has increasing influence in education and all things social. This power bloc combines multi fractions of capital who are committed to neoliberal marketized solutions to educational problems, neo conservative intellectuals who want a ‘return’ to higher standards and a ‘common culture’…and particular fractions of the professional oriented middle class who are committed to the ideology of and techniques of accountability, measurement, and management (p. xi).

Increased interest in the effectiveness of schooling is underpinned by this reform agenda which is not always made apparent to those at the coalface of education. This is translated into a production of paradoxes for teachers, which according to Hargreaves, Earl and Ryan (1996) increasingly calls on teachers to be integrated and specialised, standardised and variegated, local and global, autonomous and accountable, as well as embracing change and continuity (p. 164). Such demands send subversively contradictory messages to teachers who are required to interpret their intentions in terms of improved outcomes for students and enthusiastically embrace the reform agenda. This situation also creates a problematic set of circumstances for those involved in teacher education. Butcher, Howard, Labone, Bailey, Groundwater-
Smith, McFadden, Malone, McMeniman and Martinez (2003) have recognised the consequences for those academics involved in teacher education programs, where the need to define and interpret the educational requirements of future teachers in a suitably reflective program irrespective of current reform agendas is paramount to devising quality undergraduate degrees.

the demands of teacher education are diverse and complex and difficulties involved with the critique and reconstruction of teacher education are not easy to manage during times of institutional threat and intergenerational transitions (p. 111).

Thus, as educators ourselves, we seek to challenge the paradoxes of change within a neo-conservative reform agenda and to understand the contradictions between the rhetoric of change and the implications of conformity, whilst unpacking the implications this has for proposed new teacher educator programs designed to accommodate the expectations of a changing world. Within the context of global change and its impact on young people, and the neo-liberal reform agendas of conservative regimes, this paper explores the challenges of establishing a new concept in teacher education programs, the Bachelor of Education (K-12 Middle School) degree. It explores the process of gaining accreditation from, education authorities, systems administrators and curriculum designers.

Students of the future

Academics, such as Beare (2001) are exploring what students of the future will require in order to participate and survive in society. According to Kalantzis, Chair of the Australian Council of Deans (2002)

[students ]will need to be able to learn as they go, they will need to be able to work collaboratively, and they will need to be very good communicators and very creative people (p. 16).

The impact of these changes on education has seen various state departments of education investigate and implement innovative curriculum approaches in order to provide high-quality education for students as they engage and become active participants in the learning society. For example, Education Queensland has introduced the New Basics Project (2000, p. 1) which is about ‘futures-oriented categories for organising curriculum’ and recognising the changing economic, social and cultural conditions in which young people are now exposed through avenues such as the mass-media. The intent of New Basics is to engage young people in learning and in the practice of life-long learning, preparing them for future education and training challenges and diverse workplaces.

[It] is about dealing with new student identities, new economies and workplaces, new technologies, diverse communities and complex cultures (2000, p. 2).

In New South Wales the Department of Education and Training has 140 ‘initiatives’ operating in schools across the state. This would indicate that schools are embracing the middle school philosophy despite the NSW Department of Education and Training not having an official policy related to middle schooling. The Victorian Department of Education and Training (2003) has instigated the Middle Years Pedagogy Research
and Development Project, a plan which involves investigating classroom practice, the development of curriculum material and analysing current pedagogical practices within middle years classrooms and to develop a process to assist teachers critically reflect on their classroom practice (2003, p. 15).

These initiatives indicate a strong interest on the part of education departments to explore some of the well documented and long standing problems associated with middle schooling. It also recognises the specific needs of young adolescents and implies the requirement for practical attention to such needs. These issues, when combined with the range of factors enunciated above, provide a strong rationale for an alternative approach to the education of young people. This new approach into teacher education proved to be the quintessential focus of the Bachelor Education (K-12 Middle Schooling).

Teacher education is complex and as Ben-Peretz (2001) claims “is a nearly impossible endeavor because what one is supposed to be doing as a teacher is vague, ambiguous, and fraught with uncertainties” (p. 48). Despite the uncertainties and ambiguities involved in teacher education, academics at Charles Sturt University are embracing the design, delivery and structure of the new degree with passionate scholarship. Passionate knowers, according to Kincheloe (2003), use themselves as an instrument of understanding, searching for new methods to improve the way self is used in teaching and learning. By being passionate about what one knows allows for a deeper relationship with ones self and such a relationship produces a self knowledge that initiates a synergistic cycle. This cycle grants one greater insights into the issue being studied which therefore continues the development of such personal knowledge. As indicated

[passionate knowledge] orients the mind to see social life as more than a set of fixed laws. Social life is better characterized as a process of being, a dialectic where the knower's personal participation in events and the emotional insights gained from such participations move us to a new dimension of knowing (Kincheloe 2003, p. 65).

Such a passion for the teaching and learning components of this new degree supports a level of empowerment and divergent thinking inherently in conflict with the prescriptive nature of bureaucratic systems. Certainly it was the intent of the new degree to develop outstanding teachers who had specialist affiliation with adolescents because adolescence would be the focus of the graduate’s scholarly passions. Knowledge about subject content would then be explored from this passionate student centred position. From this epistemological base, the new degree was designed and presented to the Faculty for ratification. At this early stage, very strong and positive messages of encouragement came from the NSW Department of Education and Training. The degree won support within the Faculty and student quota was made available. It seemed apparent, that all parties involved were supportive of the degree and its implementation. However, the accreditation process proved to be extremely problematic and the source of protracted and substantial tension and conflict between all parties involved. In fact, as a result of the tension and conflict the once mutually accepted philosophical underpinnings of the degree were challenged and ultimately the degree was substantially altered. It seemed that each party had constructed its own version of reality in regard to the purpose and intent of the new degree. An analysis of
the construction of these differing realities, informed by critical theory, identifies the hidden ideological forces that construct realities and uncovered the links between the particular logics that constitute such realities. (Kincheloe 2003, p. 58).

It has been argued that teacher education programs are the sites of struggle over the consciousness of teachers (Smyth, Dow, Hattam, Reid & Shacklock, 2003). The vigorous and protracted deliberations between the parties involved in accreditation process confirmed this argument. The experience gained from going through an accreditation process for a teaching degree indicates that such struggles are particularly difficult for teacher educators as they come from a disempowered position. According to Kincheloe (2003), power regulates discourse and therefore an analysis of the discourse between the parties involved in the accreditation process highlights the source of such power. Analysis of the discursive practices defined a set of tacit rules that regulated what could and could not be said, who could speak with the blessing of authority and who must listen, whose socio-educational constructions are scientific and valid and whose are unlearned and unimportant (Lemke, 1995 as cited in Kincheloe). Through such analysis it became apparent, that the passionate, scholarly, educational constructions that underpinned the new degree, seemingly had limited validity in the discussions. Also, much of the research into the long standing problems facing middle schooling was regarded as unimportant during discussion concerning the subject content knowledge aspects of the degree.

The following section explains aspects of the accreditation process and illustrates examples of the power struggles. The intention of this paper is to illustrate the degree of powerlessness attributed to any discourse that challenges the dominant neo conservative education discourse in contemporary Australia. Consequently, the paper also laments the limited opportunities for meaningful and enriching dialogue between teacher educators and education officers due to the power of the dominant discourse. The differing perceptions of reality evident in the accreditation process may have contributed to the distinct lack of trust between some education officials and academics.

**The accreditation process**

In undertaking the accreditation process, academic staff enter a bureaucratic domain dominated by ‘ideologies and disciplinary power in ideas, language and beliefs’ (Reid, 1999, p.190) of separate educational organisations. However, in attempting to appease different state authorities, and their regulations, the philosophical aspects of any educational degree can be distorted especially when the course attempts to challenge conventional models of teacher training that enjoy the support of the dominant discourse.

**Commonalities**

While the accreditation process for each state proved to be problematic, several aspects of the process demonstrated commonalities. Education officials, while acknowledging the importance of teacher training programs exploring the educational and social development of young people (as prescribed within the new degree),
consistently found objection and points of conjecture that where framed by dominant discourse, or “the conventional way of seeing things” (Kincheloe, 2003, p. 58). The objections, although expressed in diverse ways, have a core commonality surrounding the areas of curriculum content and assessment strategies. The binary nature of these two elements expressed itself as compliance to teacher preparation consistent with the dominate discourse. In summary, this meant that subject mastery and knowledge of curriculum documentation for future upper primary and secondary teachers were seen as a clear priority by education officers. This position was immensely powerful as it originates from core components of the dominant discourse. The message coming from the initiators and maintainers of the dominate discourse is clear; subject mastery is needed by teachers if student’s themselves are to master subjects and achieve predetermined benchmarks of student achievement in particular key learning areas. This kind of accountability being imposed on school systems is the basis of neo-conservative market inspired strategies sponsored by contemporary Australian governments (Marginson, 1997).

Structure of the degree

The middle school degree includes four strands of knowledge. These are Professional Experience, Middle School Studies, Specialist Secondary Curriculum Areas, and Curriculum Content (Primary Curriculum and Pedagogy). During the accreditation process the Specialist Secondary Curriculum Areas, and Curriculum Content (Primary Curriculum and Pedagogy) drew most attention and were seeming prioritised by the education officials. The other two areas passed with little question or contestation. Interestingly the Professional Experience and Middle Schools Studies components were heavily influenced by ‘passionate’ scholarly pursuits. As the curriculum area was seen as more important and afforded greater validity by the education officers, time was therefore taken from these areas in order to meet the demands of the officials. For example, to meet guidelines for Victoria two specialist areas had to be incorporated for teachers to qualify as Year 7-12 specialists, something not required by NSW. As a result areas from the middle school section had to be removed or incorporated into other subjects. Such instances provide a clear indication of the privileged position curriculum content knowledge plays in educational regimes.

Continuing debate

The debate over curriculum continued and while not dwelling on the nature of every objection, we present the following as examples which were seen as issues in the accreditation process. Adding more specialist areas constituted a significant alteration to the organisation of the degree, but at the same time other K-6 KLA’s were demanding more time because their KLA had specialised curriculum subjects with it, such as Creative Arts. For example, it was assumed that unit assessments were only focused on visual arts and music and that there are no assessments for dance and drama anywhere within the subject. It was also assumed that assessments in this subject did not appear to reflect learning in the arts and that learning experiences did not reflect an understanding of the syllabus or arts pedagogy. Those accrediting the degree did not seem to acknowledge or recognise that the teaching of Creative Arts is also interwoven through several of the Professional Experience subjects. For example,
students spend one week working with a professional dance teacher and then develop, in collaboration with school children, a public performance. Other middle schooling subjects draw on arts strategies for expression and assessment. The idea that something like the arts and creative arts pedagogy could be taught outside of the Creative Arts subject was not afforded any value. We feel that part of the issue here was that the education officers were coming from a school curriculum perspective and were dismissive of the essential tenets of the new degree. This position further demonstrates the differing perceptions of reality.

**Defending positions**

Each primary KLA is addressed in the middle school degree as curriculum areas of school experiences and learning. However, some education academics were forced to defend their academic decisions and knowledge based on issues of compliance. An example of this related to the K-6 Science and Technology syllabus. It appeared that on pages 12 to 16 of the subject profile the rich task did not reflect a consistent approach to the KLA. The officer's objection was that there did not appear any evidence of the design and make process or the scientific investigation process in all assessment items. Compliance to this issue was made and this instance provides further evidence of how, an insignificant point drawing support from within the dominant discourse, assumes incredible authority and righteousness.

**Particular logics**

During the accreditation process particular logics privileged through their affiliation with the dominate discourse and the academic staff struggled against the silencing of its voice. Rather than being totally silenced and not have the degree accredited, concessions had to be made and several major and many minor alterations to the degree followed. At the end of the process it was hearting that the state systems acknowledged that the middle school degree was innovative and did approach some of the long standing issues facing today's school systems. They also recognized the inherit problems of gaining accreditation with two systems. Nevertheless, the most disappointing aspect of the whole process were the missed opportunities to make significant inroads into changing teachers, schools and education systems engagement and treatment of adolescent students. Such lost opportunities constitute what Kincheloe (2003) refers to as intellectual immaturity which allows processes like this to lapse into an irrelevancy and a myopia which only serves to constrain the educational possibilities potentially on offer through such collaborations. Despite how educationally appealing the degree was in regard to developing passionate middle school teachers, capable of tolerating ambiguity and uncertainty, such tenets originate from outside the dominant discourse and regarded as irrelevancies. Conversely, seemingly pedantic issues relating to curriculum content and conformity to curriculum design (extending from perspectives entrenched in the dominant discourse) directed the formation of the degree.
Conclusion

Beyond the research and structural changes to schools, the development of a qualification as a specialist middle school teacher will offer trainee teachers the opportunity to engage in a challenging and relevant program that will afford them high employability. In accepting the research (see Rafferty & Hard, 2004) that supports the need to attend to issues of middle schooling and the nature of current education departments initiatives concerning the same, the instigation of a K-12 middle schooling program would seem to be born into a receptive environment, however, this has not proven to be the case. The intent of a teaching degree which aims to address the educational and social issues involved in the transition from primary to high school for young adolescents would be an appealing notion and a shift in thinking about schooling which we, the academics at CSU, thought would appeal to education authorities given moves in several states to reconceptualise education practice for middle years students. While the rhetoric at preliminary meetings by education officials seemed to acknowledge support for the degree, the process of actually gaining accreditation revealed different agendas, and identified problematic areas for each organisation.

The impact of the accreditation process has been so significant on the academics involved that it has been the catalysis for this paper and for expressing the concerns raised. If the process of accrediting university degrees in teacher training is to be a more effective and meaningful process, for both departments of education and universities, then another procedure will need to be employed. Too much time is lost to vague and interpretative documents which are not clear to either parties and compounded in this case by different government priorities. The accreditation process has the potential to be a positive procedure of engagement between academics and education departments jointly exploring ways to reshape and reinvigorate teacher education and school based pedagogy.

Producing quality teachers, who can meet the educational and social need of children and adolescents in schools, needs to be the basis from which the accreditation process begins and ends, not a seemingly endless war of paper and words that leads to frustration, feelings of mistrust and deceit by both parties. Despite this unsavory experience the Bachelor of Education (K-12 Middle Schooling) degree is underway with its first group of students who are embracing the challenges that this degree demands. In teaching these students it is evident that the accreditation process was… worthwhile! These students have the potential to be great educationalists and possibly future reformists.

References


Mentoring and questioning:
Newly appointed secondary teachers set their own
agendas for change in their classrooms

Lizzie Chase, Alison Campbell, Ingrid Dalrymple, Donna Davison, Paul Ellis, Kris
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Chifley College, Bidwill and Mt Druitt Campuses

This paper describes how, using “mode switching”, the “teacher mentoring process” at
Mt Druitt and Bidwill Campuses in 2003 deliberately became more challenging mid-year
through the use of strategic questioning. In the second part of the paper, newly appointed
secondary teachers describe the insights they gained through internalising two types of
strategic questioning: questions aimed at building reflective skills through a) Pulling It
All Apart [to analyse a problem and work on a solution] or b) Putting It All Together [to
reflect on successes in the classroom, by identifying the factors leading to success]. In
this paper we argue that using strategic questions to reflect and to change our teaching
practice is very empowering for teachers in challenging schools, particularly when this
process is collaborative.

The mentoring context – Lizzie Chase, Teacher Mentor

[The 2003-2004 Teacher Mentor Program in NSW is a pilot program in which 50 teacher
mentors are working to support probationary teachers in some of the state’s most
challenging schools. The first part of this paper examines the mentoring process at
Chifley College, Bidwill and Mt Druitt Campuses in 2003 from the teacher mentor’s
perspective.]

We know that when many newly appointed teachers (NATs) enter the profession they
come with very high ideals, many skills, abundant enthusiasm and a great willingness
to teach students by catering for multiple learning styles, by offering ‘hands on’
experiences and by tackling the dimensions proposed within the Quality Teaching in
NSW Public Schools discussion paper (CDEST, 2002; Martinez, 1994; Newmann,
2000; PSCD, 2003). The realities which they encounter if they teach in an extremely
challenging school can be very disillusioning unless they are quickly linked to
teachers who have managed to maintain their passion for teaching. Newly appointe
t teachers need opportunities to see successful, challenging teaching in their own
contexts, or they run the risk of linking with colleagues who will show them how to
survive but not how to thrive in their teaching (Feiman-Nemser & Parker, 1993;
Feiman-Nemser, 2000). The pilot Teacher Mentor Program offers one such positive
opportunity because it is based on a “face-to-face, close to the classroom” view of
mentoring, through which NATs are provided with many hours of team teaching,
teaching observations and after-class debriefings and strategy sharing, with the mentor
and also with a number of inspiring colleagues (Feiman-Nemser & Rosaen, 1997).

In 2003, I was extremely fortunate to begin work as a teacher mentor in two campuses
which already showed many of the hallmarks of a thriving learning community. In
mentoring my twenty NATs, I found many colleagues who were willing to have NATs in their classrooms to observe their teaching and to debrief afterwards with them, there was open discussion about teaching and learning, differences of opinion were valued and the schools had structures which supported collegial discussion and planning together – professional learning team meetings and learning partnership sessions created time for idea and resource sharing. Both schools were involved in the Priority Action Schools Program (PASP) to lift student literacy and numeracy outcomes and both schools were coming to terms with the Quality Teaching in NSW Public Schools Discussion Paper (PSCD, 2003). This meant that I worked in a context which was extremely supportive of action-reflection cycles in teaching and a number of my NATs conducted their own small-scale action research projects to test their theories about teaching in their classrooms (Kemmis & McTaggart, 1991). I was also assisted greatly by suggestions from colleagues Kate Cameron and Judy-Ann Abdini, who both have years of experience in mentoring teachers.

The mentoring process

I worked with twenty newly appointed teachers who had entered teaching via a number of pathways. Some teachers were straight from university, some had worked in other occupations and retrained, some had come from primary teaching and some had trained overseas. My major focus was being in the classrooms with the teachers and debriefing afterwards, or relieving them so that they could have observation time or joint planning times with their colleagues or head teachers. As well as working individually with each teacher, I met with the whole group once a fortnight for three terms for school induction meetings. For these meetings, I invited many teachers from both schools to talk about their teaching strategies and we gave out many practical resources so that the NATs could see how to do the suggested strategies, step-by-step. These meetings provided a wonderful forum for the NATs to share their own strategies and ideas on a regular basis. In Term One, we focused on establishing positive classroom routines and behaviour management strategies, in Term Two we focused on literacy in the learning cycle, in Term Three we focused on catering for different abilities and learning styles within a multi-ability classroom and in Term Four we focused on establishing individual learning plans and Professional Portfolios. In Term Three, each NAT was asked to target a classroom problem and share how they had tackled it, outlining any successes or setbacks.

My own mentoring process is based on the notion of mode switching described by Ayres et al., when analysing the elements of successful senior secondary teaching (Ayres, Sawyer & Dinham, 2001). They noticed that effective lessons seemed to consist of two sections. In the earlier part, the teachers taught directly and explicitly and explained clearly, while in the second part the teachers set challenging, ‘student-centred’ tasks and switched modes, refusing to give direct assistance. In this facilitator mode, the teachers responded to requests for assistance from students by asking them strategic questions - prompting students to think and solve their own problems. I wanted my mentoring to evolve from being initially directive to being facilitative, so that in Terms One and Two I gave a lot of direct input and advice about effective teaching strategies, so as to give the NATs access to common models depicting elements of good pedagogy (Burke, 2002; Glasgow & Hicks, 2003; Killen, 2001;
In Terms Three and Four, after I felt that the NATs had received enough explicit input about behaviour management and the teaching learning cycle, I switched modes and became a facilitator who asked strategic questions, rather than supplying answers. I outlined this process to the NATs, so that they were aware of my intentions and understood my changed style of relating to them. I also required from Term Three onwards that the lessons I went into had a ‘student-centred’ focus, with ‘hands on’ activities or group work for most of the lesson.

This process travelled in parallel with my use of Glasser’s five basic needs as a powerful explanatory model for the classroom and for mentoring (Glasser, 1998). At first I worked to support the NATs’ needs for survival and belonging – in Term One, I wanted them to know that they could trust me, I was on their side and that I would work with them on behaviour management strategies so that they would survive in the classroom. In Term Two, I worked with them so that they could gain power in their teaching – using literacy strategies and the teaching/learning cycle so as to connect with students and teach clearly (DET, 1999). From Term Three onwards, I worked with them so that they would move from safety in their teaching to significance, so that they and their students could experience fun and freedom. I wanted their classes to reflect their own particular teaching styles and to offer intellectual challenge, relevance and some degree of negotiation for their students. I wanted them to enjoy teaching as a problem solving pursuit and to gain an increasing sense of mastery through analysing their own teaching practice and setting their own agendas for change (Hattie, 2003).

Strategic questioning as a tool for problem solving

I began Term Three by inviting the NATs to ask me into a lesson they knew would be fantastic, so that we could analyse it together afterwards through strategic questioning. At the end of the lesson, the teacher wrote down notes as to why it had gone so well. We talked together about why it had worked, answering these questions: What were you wanting to achieve? How did you know it worked? What were the reasons for the success of this lesson? What would you do differently next time? From this basis of analysing a successful lesson, each NAT was able to begin the process of establishing a metaphor for their own teaching ["It’s all about flow", “I like to see their eyes light up”, “I like to teach them in small steps they can manage”, “I want them to carry away the main idea”, “I want them to do things they never thought they could do”]. Each NAT came away with their own diagram of the key ingredients for a good lesson [preparation, interest level, variety of activities, clear lesson aim, rapport, good management, pace, etc]. Later in the term, the NATs asked themselves these Glasser-style questions in order to plan a change in their teaching: How would I like it to be? How do I believe it should be? What do I want to change? What steps can I take to get there? How will I measure the change? They were able to use their “ingredients for a good lesson” to map what might be missing from a particular class which they were targeting. They also looked at student workbooks and test results to see if what they were teaching was actually being learned by students. In addition, in attempting a change, strategic questioning was used to elicit from students their views of classroom activities, via written self-evaluations: What have you learned from this lesson?
Which activity was enjoyable for you? Is there anything which was hard to understand?

Although the NATs were able to make powerful changes in their own teaching after nominating their own questions to explore, this effect was definitely heightened whenever they worked in partnerships to discuss their agendas and share ideas. This seems to bear out the idea that a shared focus, reflective practice, collaborative partnerships and ever increasing leadership capacity are the keys to successful change in schools (Newmann & King, 2000). I found that the NATs were ready to look at the individual needs of their students far earlier than much research indicates is typical. I also found that for many of the NATs the strategic questioning did become internalised and did not just remain a part of the mentoring process. All the research into teacher self-efficacy points to the fact that teachers who feel competent are at far lower risk of burn out than teachers who have not developed the skills to analyse the problems within their classrooms and to solve them (Guskey & Passaro, 1994; Brouwers & Tomic, 1998). Teachers benefit from the process of asking strategic questions about their own teaching every bit as much as their students benefit.

The following extracts come from extended accounts written by teachers who started teaching in 2003 and they fall into two categories: Pulling It All Apart (Analysis) and Putting It All Together (Synthesis). They were originally written with an audience of 2004 NATs in mind and the last account is actually written by a 2004 NAT, Paul, who has only been teaching two terms.

The Pulling It All Apart extracts by Alison, Allison, Donna and Pam indicate how these teachers changed their teaching because they perceived that something needed to be done. The Putting It All Together extracts by Ingrid, Kris, Maryem and Paul give some indication of the synthesis of their ideas about literacy in the teaching and learning cycle, or building rapport and behaviour management, now that they feel some measure of confidence in these areas. Every extract reflects the individuality of each writer but also shows the benefits of good models to work from and share. Each extract demonstrates the importance of a shared body of ideas and the equal importance of challenging accepted teaching orthodoxies and of making teaching our own enterprise by setting our own agendas for change. Following these extracts, this paper will conclude by drawing together some of the benefits of strategic questioning in mentoring and in setting our own agendas in teaching.

Pulling it all apart: Analysing our practice to solve problems – Alison, Allison, Donna and Pam

The benefits of action research – Alison Campbell, Science teacher

[In her original extended account, Alison analysed the problems she encountered in her ‘explicit teaching’ action research project and the ways in which this analysis prompted her to solve various teaching and testing dilemmas.]
…. I thought this would be simple – to explicitly teach some information, the students already know the questions, then post-test them, they should get excellent results. I was horribly wrong! I did … exactly the same with two Year 8 classes and it worked with one, but not the other. It was terrible to learn that what I thought they had fully understood, had even answered perfectly in class during the lesson, they could not get right in a test… Eventually, after re-teaching the concepts using ‘hands-on’ and ‘visual’ strategies, I realised that perhaps it was not the teaching, but the test that was all wrong. So I designed a visual test similar to one of the exercises that they had done in class. There was a big shift in results and several students received full marks for their post-test. It was then that I realised that pre-testing and post-testing had great advantages for improving my teaching…

Independent learning contracts – Allison Throwden, HSIE teacher

[In her original extended account, Allison analysed the way in which she trialled an independent learning contract to extend her top students. The responses in the anonymous student review at the conclusion of this trial provided useful future directions because they highlighted some unanticipated ‘gaps’ in student understanding.]

…. I learned a great deal from implementing a wide range of teaching strategies in the classroom but I felt unsatisfied because students in my top classes were not really being stretched to their limits. I felt that I did not really give them the opportunity to control and create their own learning (Boomer, Lester, Onore & Cook, 1992; Johnston & Nicholls, 1995). How could I cover the syllabus and allow students to choose what they wanted to learn at the same time? I had no idea how to tackle this problem so I let it drift at the back of my mind until I was introduced to an ‘Independent Learning Contract’ at one of our many Professional Learning Team meetings. This particular independent learning contract involved creating an activity table, intersecting Gardner’s theory of multiple intelligences along the vertical axis with Bloom’s Taxonomy along the horizontal (Bloom, 1984; Gardner, 1993; Pirozzo, 2003)…

Integrating technology effectively into the classroom – Donna Davison, English

[In her original extended account, Donna analysed how she built co-operative learning skills in her Year 11 Advanced English class which had hitherto only worked independently.]

…. At this stage, we were studying a visual text, focusing on visual literacy. The students were all very enthusiastic about the content of the Unit, and demonstrated much higher levels of visual literacy rather than literacy in general. Originally, I had set an assessment task requiring the students to storyboard a one minute video clip to promote the school. However, I saw this as an opportunity for the students to learn to work effectively as a team, and as team members. Instead, the students and I negotiated a much larger task – they would write, direct, star and produce their own show about The Rat Race. I gave them some basic guidelines so that they could fulfil course requirements, but then stepped back and only made myself available for technical advice. The students had to decide on the format, segments, locations, costumes, scripts, talent and deadlines. This meant each member of the team had responsibility for making the video a reality…
How can I get the best from myself and my class? – Pam Johnson, HSIE teacher

[In her original extended account, Pam analysed the way in which she came to see that preparation was the key to teaching success, and the problem solving steps she took to act on that understanding.]

Being a newly appointed teacher can be frightening, but don’t let that turn you away. Communication is the thing. Do not be afraid to ask questions – ask for help. Get help from your mentor, head teacher, principal, fellow teachers, your family and even your students. However, asking for help is not the only advice that can be given to a newly appointed teacher. Preparation is the key…

Putting it all together – Ingrid, Kris, Maryem and Paul

Integrating literacy into the teaching and learning cycle – Ingrid Dalrymple, HSIE

[In her original extended account, Ingrid described how the Teaching and Learning Cycle (Wylie, 1999) describes and ‘synthesises’ what teaching is all about and provides her with clarity and direction. Ingrid believes that language is crucial to thinking and learning, it is fundamental in the classroom, hence the vital importance of giving students access to the language they will need and literacy ‘scaffolding’ so that they can participate fully at school.]

…. When I was shown a model of the Teaching and Learning Cycle for Literacy (Wylie, 1999), I felt that my job in the classroom, in terms of the processes of teaching, became much clearer. It came like a bolt of clarity and, to be honest, I was amazed at how I had managed to get into the classroom and survive without knowing about it. Of course, I had probably learned about the explicit teaching cycle at university, but it was almost certainly filed away in my brain, disregarded as yet another ‘useless’ educational model (DET, 1999). This raises the notion that the things we learn about teaching at university have little impact unless they can be related to real classroom examples. In terms of theories about teaching students to read and write, none can be useful unless we are actually able to contextualise the problems and solutions. Experiencing realistic classroom settings with many students who have not been exposed to a culture of reading and writing is the only place to tackle literacy issues…

Hints for building rapport – Kris Euridge, English/Visual Arts teacher

[In his original extended account, Kris synthesised his understandings about respectful and open communication with students. He emphasised the vital importance of using students’ names, listening with care and presenting material which is relevant and engaging.]

…. Many educators wouldn’t immediately associate the material they are teaching with student rapport, but rapport can be greatly influenced by what you are teaching the students with and about. The plethora of resources available to new teachers is fantastic. You wade through the text books, videos, and other delights, then work out your outcomes and spend hours sweating over a hot desk creating perfect tasks. All of this you take to your Year 9 class and wham! They absolutely hate it. What went wrong? Nothing you did was wrong, these tasks work and the outcomes are fine, but
what about the subject matter? Subject matter can make all the difference, if something doesn’t speak to students at their gut level they may choose to ignore it, or worse, rebel and make your class far from harmonious and stimulating. Students take an interest when they realize you have taken an interest and made every resource count…

Effective behaviour management – Maryem Toufayli, Science teacher

[In her original extended account, Maryem synthesised her understandings about the benefits of using a ‘choice theory’ approach to behaviour management as advocated by William Glasser.]

… As teachers, we have a responsibility to meet students’ basic needs for survival, fun, freedom, belonging and power through our interesting lessons and safe classrooms (Glasser, 1998). I’ve written my advice for you in point form, it summarises what has worked really well for me in the classroom. My main point is that consistency in follow up is crucial – always do what you say you will, keep your promises and follow through on behaviour issues. With challenging students, shouting will not work unless used very rarely, what does work is preparing interesting lessons, working at a fast pace so students don’t get bored or bogged down, praising and rewarding good behaviour and having follow up for poor behaviour. Teaching is a juggling act – it is so important to build a good connection with students, it’s also vital to be strong in managing a class. Kids respect our interest in them and their work, and also our strength…

How do I build an effective rapport with my students? - Paul Ellis, HSIE, 2004 NAT

[In his original extended account, Paul synthesised his ideas about effective communication with students. He believes strongly in the benefits of taking an interest in students’ sporting and extra-curricular achievements as well as their classroom successes. He also stresses the importance of establishing clear boundaries and a strong classroom presence.]

…. Teaching is communication and the key to developing a relationship with students is through effective communication; if you show interest in what they are doing, they will show more interest in what you enjoy teaching. Students need a reason to learn and they want to impress. If you give them a reason to learn, they will impress you. In a tough school where there is a lack of role models at home for educational motivation, you must provide the reason to learn. By getting involved in what they find interesting or enjoyable they will be more open to what you have to teach them and they will want to come to your class…

Strategic Questioning: Putting It All Together – Lizzie Chase, Teacher Mentor

The eight extracts show four major benefits of strategic questioning. Strategic questioning fosters independence, encourages evidence-based problem solving and inquiry, encourages teachers to synthesise their own models or metaphors for effective teaching, and extends their teaching repertoire, fostering creativity and innovation.
1. Strategic questioning promotes autonomy, reduces dependence and fosters individual teaching ‘styles’ because teachers pose their own questions and solutions for investigation. They analyse their own particular situations…

Sample questions: How would I like it to be? How do I believe it should be? What do I want to change?

Pam Johnson analysed her teaching and decided that she wanted to focus on planning because she could see ‘gaps’ in her practice. Allison Throwden felt dissatisfied because her top classes were not being extended. Donna Davison became aware that her Year 11 class needed co-operative learning skills after analysing what was not working in the classroom. In each situation, the teacher was able to discuss possible solutions with colleagues before trialling them. In addition, each teacher had already been exposed to models and strategies which might offer some assistance. Strategic questioning needs time, supportive colleagues and ‘best practice’ resources to maximise its benefits. Without these supports, a teacher seeking self-improvement can go “in circles”, lacking the benefits of additional insights and approaches to teaching. Another requirement is a safe environment for risk-taking. If our colleagues support us when we try a new strategy which may start out by involving some extra noise, then we will be far more inclined to question our own practice and make changes in our classrooms. Strategic questioning works best in a learning context where teachers are encouraged to have their own style and to ‘have a go’.

2. Strategic questions support evidence-based problem solving and inquiry

Sample questions: What steps can I take to get there? How will I measure the change? What will I see in the students’ books? What will I see in their behaviour? What will I see in their tests? What will I see in their writing? What will I see in their reading? What will I see in their assignments? What will I see in their group work?

Alison Campbell thought really hard about how to teach her Year 8 students certain scientific concepts “explicitly” for her action research project. When the post-testing process showed that students could not replicate their oral classroom responses in their tests, she tried re-teaching and re-testing using different techniques. Each step of the process involved very focused analysis and problem solving. The strategic questioning process did not only support benchmarking using pre- and post-testing. In addition, teachers were encouraged to look at students’ work and classroom behaviour diagnostically, and also to ask students themselves about their enjoyment and understanding of units of work, so as to inform future teaching. Typical student evaluation questions included: What have you learned from this lesson? Which activity was enjoyable for you? Is there anything which was hard to understand?

The greatest value of strategic questioning is that it empowers teachers to set their own agendas for change. Using evidence to measure what was happening allowed for student input into the teaching process - we observed and analysed students’ work and behaviour and we also heard from them directly. Analysing student work samples was very beneficial for these teachers, because the patterns of error, or gaps in understanding in student workbooks, set future directions for teaching and showed them what needed to be retaught.
This process of analysing student work also strongly reinforced the need for these teachers to set challenging writing tasks – so that they could know their students well. A book full of notes copied from overheads was not going to show what students could do on their own. Evidence based analysis was a powerful tool for analysing the intellectual quality of the tasks that students were undertaking. At Mt Druitt Campus, when pre- and post-testing were used, they created an imperative towards extremely explicit and systematic teaching. This was because these teachers let the students “in” on the process and the students were very motivated to see how much their understanding of a core concept had improved from start to finish.

3. Strategic questions establish ‘working’ models for effective teaching

Sample questions: What is effective teaching? How does it look in the classroom? What is the teacher doing? What are the students doing? What is good teacher rapport? How do we communicate effectively in the classroom? What are the elements of a good lesson?

These sorts of questions were the ones which I used with these newly appointed teachers at the beginning of Term Three, immediately after viewing an excellent lesson. We built on the positive: synthesising the crucial elements of effective teaching as demonstrated through a superb lesson. This allowed us to diagram a tentative, ‘working model’ of what each teacher saw as effective teaching. Naturally, over time this model would evolve, but it provided a repertoire of effective teaching dimensions and strategies for these teachers to draw upon later when analysing their more challenging classes or disappointing lessons. I would like to thank my 2003 mentor Judy-Ann Abdini for suggesting this as an empowering starting point for strategic questioning.

We only moved on to analysing teaching problems after having synthesised and celebrated our insights. In addition, strategic questioning was always used to pursue issues set by these teachers themselves and to bring about positive change within their classrooms. The synthesis which occurs whenever teachers write down their response to “What is good teaching?” shows the constructivist nature of their ongoing learning as teachers, their connections to deep truths about learning and their personal celebration of what they have learned.

Another important aspect of synthesising our ideas, is to link them to pre-existing models of best practice, so that we are in dialogue with best practice and varying constructions of pedagogy. In her extended discussion about behaviour management, Maryem Toufayli was informed by her understanding of Glasser’s choice theory. In his synthesis of ideas about effective communication, Paul Ellis was informed by notions underpinning communication theory. Ingrid Dalrymple’s teaching practice is informed by Shelley Wylie’s teaching–learning cycle, which in turn is an amplification of the explicit and systematic teaching–learning cycle espoused by the Department of School Education. Allison Throwden and Donna Davison link their practice to ideas within the Quality Teaching in NSW Public Schools document. Allison Throwden also finds Bloom’s Taxonomy and Gardner’s learning styles to be useful models supporting her pedagogy.
4. Strategic questioning extends the teaching repertoire and fosters creativity and innovation

Sample questions: How can I make this more interesting for students? How can I make this more challenging for students? How can I encourage group work? How can I encourage higher order thinking? How can I cater for different learning styles?

Strategic questioning encourages teachers to try teaching strategies which they have not tackled before, in order to solve problems within their classrooms. In fact, sometimes there may not be a problem, just a perception by a teacher that positive change is needed to give students greater variety or depth in their learning experiences. In these instances, teachers often try strategies which foster creativity and innovation in their students. For example, Donna Davison discovered that negotiating student learning outcomes was the way to build student engagement and decrease student dependency, and it also led to a much more enriching, creative task in shooting their Rat Race Video than she had originally envisaged.

In conclusion – All the authors

The extracts above clearly indicate the benefits of using strategic questioning in the mentoring process. It is very pleasing to be able to report that we all continue to analyse our teaching practice and synthesise our insights about teaching. We have internalised strategic questioning and made it our “own” - although it began within the mentoring context. In this paper, we have shown that using feedback from student results, to set questions for ourselves and to change our teaching, leads to powerful improvements in student learning. Teaching is a problem solving activity and we can set our own agendas for positive change from the first day we set foot in the classroom, if we use strategic questioning and collaboration with our colleagues to analyse, debate and synthesise key elements of effective classroom practice.

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Scaffolding academic literacy:  
Case study of pre-service teachers

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The paper reports on a teaching initiative designed to improve the academic literacy of first year students completing a Bachelor of Education. The initiative took place in a first year, first semester subject and draws upon scaffolding theory using a high challenge/high support approach. Eleven students were interviewed at the end of their first year at university and again at the end of their second year to ascertain the consistency of learnings about academic literacy attained in the first subject. Two narrative accounts of student learnings are included as well as accounts of the learnings of the four researchers.

The transition into university life is a significant leap for many tertiary students. A specific skill they need to master quickly is academic literacy which we define as the ability to read, critically analyse and produce pieces of academic writing according to the conventions of the discourse. Within this paper, we report on a project designed to scaffold students in developing academic literacy skills in a first year Bachelor of Education subject.

The impetus for the project came from observing the strategies many of our students used when faced with academic literacy tasks. We wanted them to produce cohesive, well-informed and well-argued pieces of writing for their assignments. Instead, many students avoided reading complex academic texts, coming to tutorials without having read the required readings and adopting a surface, last minute collage approach to assessment (picking words and phrases from readings and stringing them together to produce semi-coherent assignments). We decided that if we wanted our students to produce the kind of work we expected then it was imperative we provide ‘effective university transition experiences’ that address student needs (Krause, 2001, p. 147).

We targeted a first year, first semester subject called Education Foundations. The subject introduces students to perspectives and purposes of education in relation to cultural, social, physical and cognitive development of children and adolescents. In particular, there is a critical focus on the ways that various perspectives of education influence learning and teaching. We adopted a Vygotskian sociocultural perspective in which learners ‘develop their cultural and psychological functions through participating in the communal cultural practices and interacting with more knowledgeable members of the community (Kong, 2002, p. 2). Proponents of Vygotskian theory argue that good learning experiences are pitched ahead of the students’ current ability. The teacher’s role is to ‘scaffold’ the learner ‘in order to assist them to complete a task or develop new understandings, so that they will later be able to complete similar tasks alone’ (Hammond & Gibbons, 2001, p. 3). Mercer
(1994 cited in Hammond & Gibbons, 2001, p. 7) proposes five criteria for distinguishing scaffolding from others types of teaching and learning: students could not succeed without the teacher’s intervention; the teacher aims for some new level of independent competence on the students’ part; the teacher has the learning of some specific skill or concept in mind; there must be evidence of students’ successfully completing the particular task at hand; there must also be evidence that learners are now able to go on to deal independently with subsequent related tasks or problems. We identified six outcomes that would evidence success of the project: confidence in using demanding academic texts; ability to produce well-structured written assessment items; evidence of critical thinking; adoption of study practices that support deep learning; enhanced metacognition; and sense of agency.

A research project was implemented to evaluate the teaching. Eleven students were interviewed at the end of their first and second year at university. The students self-selected from recruitment processes and all were female. They ranged from mature-aged students to some straight from school. All interviewed indicated that the challenge presented to them in Education Foundations had been high and all indicated that there had been significant learning. We also analysed written assessment items produced in first and second year. This paper reports on data gathered from interviews.

**Teaching strategies**

The four pronged approach to teaching included: using academically demanding texts; setting a challenging first essay that required students to take a position, develop an argument and support their claims; using tutorials to scaffold students in academic literacy; and actively promoting, and integrating where possible, the University Academic Skills Program (ASP).

The choice of texts (a reading brick and a text book) for the targeted subject was based on the notion that first year tertiary students should find their classes ‘intellectually engaging and academically rigorous’ (Maloney, 2003, p. 670). The articles in the reading brick were chosen on the basis of being academically demanding, covering a variety of genres, immediately disrupting students’ linear view of education, and contributing to their understanding of learning processes. An expository organiser preceded readings focusing attention on what we hoped students would take from it.

We decided to be intentional and explicit about integrating the ASP into this subject by: using a staff member of the ASP as a tutor so as to improve communication between the subject staff and the ASP advisors; conducting study skills workshops specifically designed for our students focusing on their academic texts and first assignment; selecting specific online learning programs from the ASP site and including them in assignments and introductions to readings; encouraging students to have private consultations when their assignment work was below a credit standard; sending copies of our subject outline and reading brick to the ASP advisors so they were familiar with our requirements.
Tutorial strategies included: stating outcomes for each session which were evaluated at the end; tasks linking students’ experiences to the content of the readings or the focus content; small group activities where students felt safe to share ideas; opportunities for directed writing related to the first assignment; reflections on the different strategies students used to read academic texts, prepare for assignments and manage time.

The students received three assessment tasks, with the first specifically linked to academic literacy. This was a 1000-word essay titled: What is education? The tutorials and readings had been used to show them that education is not easy to define, is a contested field and changes according to the social context and historical period. The criteria for the assignment were: demonstration of understanding of the question; a logically developed argument; conventional use of argument-explanation-discussion; appropriate use of references; cohesive and coherent paragraphs and whole text; use of conventional grammar; use of conventional reference style. Again, the students were directed to relevant information on the ASP website.

Students were told that if their first assignment fell below a pass level they would be given a resubmit. All essays were given detailed feedback about the criteria and ways in which they would improve their writing. The resubmit rate ranged from 50% in one tutorial to 20% in others. Students who received a resubmit were required to meet with the tutor who gave detailed feedback and discussed how they might improve their work. In some cases the students started completely afresh.

Student learnings

The interviews we conducted with students revealed that all students found the Education Foundations experience challenging but helpful in terms of developing academic literacy strategies that increased their confidence and sense of agency in being able to complete the course. However, there was diversity in the orientation of students in terms of what they wanted get out of the course and this significantly affected what they took from the strategies offered in the targeted subject. Below are two student accounts: one representing a student whose orientation was practical (wanting only to learn what she could see as being directly related to the classroom); the other representing a student who embraced all that she was offered.¹

Kara

In her first interview, Kara said she was ‘dumb-founded’ when she was faced with the first Education Foundations essay and she found the associated reading ‘a shock’. She initially used a collage approach to doing her assignments: ‘I used to just put all my ideas down and not flow together.’ This resulted in her being asked to resubmit her first essay. She was very angry, but then realised it was an opportunity and found that working with her tutor resulted in some real learning. In her first attempt, she had virtually handed in the rough draft so that, when she got it back from her tutor, she admitted that even she didn’t understand what she had written!
When Kara was asked in her interview if there are some assignments that had helped her to think critically, she identified the Education Foundations essay. She revealed that the initial high challenge and high support in Education Foundations had helped her to take a more confident and critical approach to academic writing. Critical thinking she defined as: ‘Thinking about your reading and kind of analysing your thoughts and bringing everything together . . . you’ve got to think of all alternatives and . . . not just settle for the first thing you think of.’ She stated that she prefers writing reports in which she can use headings and points rather than essays that require paragraphs and she doesn’t like exploring what others think. Her favourite assignment involved reviewing a children’s storybook because she could use her opinion and because it was more related to teaching.

Readings Bricks have been difficult for her because of the vocabulary. She finds textbooks much easier to understand and in particular likes that they are colourful. She referred specifically to the highlighted points in boxes at the side of the main text because they show her what are the important points, otherwise she states she would summarise everything. A reading that stood out in her mind was one she described as ‘straightforward’ and that told her how to do ‘Running Records’ with children. The reading was spaced out, and didn’t include long paragraphs.

At the end of the second year, she reported she is reading more widely, being more thoughtful about what she reads and finding it more interesting although she still prefers textbooks to reading bricks because they are more practical. She did not use the ASP in either year. She continues to like practical assignments such as reports, designing a pamphlet, doing a survey and constructing a portfolio. Essays are still thought of as hard in that they require answering a set question and developing a position. Still Kara reports that her confidence in knowing how to write has increased because she knows what is expected of her. She continues to do individual assignments in one day if possible and is not keen to ask another person to read her drafts because if she reads their work she might panic if she has not covered what they have covered. When asked what was a turning point in changing the way she approached her university work she stated that being asked to resubmit her first assignment in Education Foundations ‘was a shock to the system’.

Barbara

Barbara is a mature aged student studying early childhood teaching. The first reading for Education Foundations was a ‘big shock’ for her so she immediately went to an ASP academic reading workshop. She found out that her approach of reading the texts ‘like a book’ from cover-to-cover and taking long notes was not helpful. Instead, she learnt that she needed to ask herself what she wanted to learn from the text. This was difficult at first but by the end of the year she believed she was getting better at using this strategy: ‘I have a list of what I really want to know before I start looking.’ The tutorials were extremely helpful in that the tutor linked the readings to the students’ previous knowledge. Talking with other students was also helpful: ‘What I may not have picked up, someone else picked up, and then we’d all get together and talk about it and then it started to make sense.’ Like Kara, she enjoyed the developmental psychology text book because it has lots of diagrams.
Barbara’s strategy in writing the first essay was to summarise all the theorists and make some links to her thoughts about education. When she went to the ASP with her first draft, the advisor went through it and showed her where she was using ‘her own voice’. The staff at the ASP also showed her how to use a diagrammatic form to shape her essay so that she had a view of the whole rather than getting caught in small details. She has learnt the importance of an introduction in indicating where you are going in the essay and she has learnt to link paragraphs. She now makes a draft and puts it aside for a few days so that she can read it with fresh eyes when she comes back. She also gives her essay to others to read and give feedback. Barbara had never used ‘I’ in an essay and being required to have an opinion and to say why she thought a particular idea was really alien for her. Her initial strategy in doing an assignment was just to pick one book but now she gets a few and selects sections from them that are relevant. Throughout her interview she referred back many times to drawing on what her tutor, who was also an ASP advisor, had told her to do. The advice of the tutor was now a form of private speech or self-talk Barbara draws upon to scaffold herself through the assignment writing process. She has discovered that she is learning for herself rather than for marks and that she needs time to mull over ideas. She appreciated, although not at first, that when her tutor asked a question she encouraged students to spend a few minutes thinking before they responded.

When we interviewed Barbara again at the end of her second year at university, she reported feeling more in control in that she is able to work more efficiently. When she begins a subject, she looks through what needs to be done and sets up folders for each topic for ongoing collection of information rather than leaving it until she starts writing the assignment. She referred to this an ‘anticipating’, rather than a ‘waiting’, strategy.

Researchers’ learnings

Each of the researchers, and authors of this paper, came to the project from a different position: program head, linguist, director of ASP, and teacher in both the subject and ASP. We found that what we took from analysing the data depended on our position and so below are short reflective accounts that act as a diverse summary of our learnings from the project.

Christine: Program head

My position means I am interested in the overall experience of the students. The learnings for me have been various. Our students are given a lot of assignments that serve good purposes in relation to the outcomes of their subjects. Some students like doing one or more of the different genres while struggling with others: reports, posters, brochures, essays, programs, lesson plans, etc. Each requires a different set of skills that must be mastered and I doubt that we think about scaffolding the students in mastering the skills of each one. I also became more aware that the quantity of assignments we give them encourages surface learning. One student expressed it as ‘I’ve got a lot to do so I leave it to the last minute and am satisfied with a pass.’ Another student stated: ‘I just have to do this so I don’t have to do the course again.’
While we can support them in dealing with demanding texts and challenging assignments, students revert to last minute surface approaches if the assignments do not demand deep thinking. Setting them a challenging essay is worthwhile because most stressed that they were not aware of how to set out an essay, how to argue within it or how to articulate and develop a position. However, if we are to move beyond surface learning we need to reduce the number of assignments and foster a diversity of literacies that require deep thinking. Indeed, providing students with opportunities for metacognitive learning is helpful in that some become aware of the choices they make including those that encourage superficial understandings. Often they make these choices to cope with the plethora of assignments. The students were not critical of the way in which our subjects encouraged surface learning. It may be that in fourth year they will not be so reticent.

Mary: Linguist

There were two things that proved problematic to me in our research – factors that were both surprising and destabilizing. The first emerged in the collection of written data. Although we used the plural form, ‘literacies’, in our research design and our talk, our starting point actually rested on diffuse notions centred mainly on the essay or the report. I had assumed we would be looking at extended responses to questions like ‘What is education?’ or ‘What is important in language education?’ with a smattering of practitioner-oriented assignments such as units of work and lesson plans. I was unprepared for the wealth and diversity of assignment types students produced just in the course of their first year of study. These included letters to parents of an imaginary school explaining the school’s approach to teaching of literacy, a commentary on a child’s book and its developmental level along with recommendations on how it would be used in classroom teaching, a portfolio of web-based materials on educational development including evaluations of their educational worth, a series of web postings on issues related to information technology and education, a brochure promoting inclusive education in classrooms, and running records of children’s reading plus recommendations for teaching of reading based on these.

The regular meetings we had as co-researchers resulted in a dialogue (and it was truly dialogic in my opinion) that had a curious effect on my own thinking that was both rewarding and problematic. I realized how fragile my own assumptions about academic development were becoming. This was a good thing in many ways. Linguists get attached to categories (particularly those they have developed themselves). After a time, they tend to take the analytical category for the thing they are looking at and become captive to the age-old problem of reification. What I have learned in the course of the research dialogue is that the process of working out shared understandings is more powerful than imposing classifications on the mess of data. Students and co-researchers disrupt categories. In the second year of our research, we have not only unearthed some hidden assumptions about what is academic literacy but begun to confront two emerging questions we had not consciously factored into our initial research design.

1. What kinds of development in academic literacies should we look for in teacher education?
2. How do we promote this development over the four years of the course?

**Linda: ASP and subject teacher**

The thing that struck me most about the first round of interviews was how much the students talked about what they did in tutorials and with other people (peers, partners, parents, etc.). It focused me on how much learning is a social as well as an individual activity. I also thought a lot about the idea of scaffolding. Recent experiences in academic teaching and professional development, coupled with many years of working in learning and academic skills advising, have led me to believe that as tertiary teachers we generally don’t scaffold students enough. We seem to expect students to know what to do once they get to this stage – a kind of ‘if they don’t know it by now, they’ll never know it’ approach. This research has also confirmed my belief in the need to actively practise skills if they are to be mastered. Some of the students talked about this in the interviews. They realised that they had been shown a new way of approaching a difficult task, but they had not done it often enough for the new skill to be a solid part of their academic literacy repertoire yet. This seemed to parallel my learning in this project. As a group we seemed to need the regular weekly conversations. We would often come up with an idea only to need to revisit it and clarify it again the next time we met. Again, there is a challenge for tertiary educators to offer enough opportunities for this type of learning to occur. Too often, we expect students to ‘get it right the first time’.

**Kate: ASP director**

The main thing I have learned from our research project has been to live with doubt. When we set out on the journey I had a strong faith in the pillars of academic literacy: reading and writing. And by reading and writing, I meant hard-core reading—journal articles, meaty textbooks and lots of them—and expository essays. Furthermore, as an academic skills adviser, I had a great investment in these arcane bastions of literacy, because so many students, especially those from non-English speaking backgrounds, found them inaccessible, and I had made my career out of demystifying them. The findings of our project, however, made me seriously doubt these genres. Over the eighteen-month period of our study, students completed nearly 30 pieces of assessment, of which only four were traditional essays. And while the students obviously had a sense of achievement from doing the essays they raved about some others (which I privately disdained) as a fantastic way to learn. For example, a group assignment preparing a pamphlet on the inclusivity policy of an imaginary school was a great experience for them. I had to accept that, as burgeoning professionals, such projects helped students gain valuable professional understandings. So, as an academic skills adviser, I have been challenged to rethink much of my practice. Academic literacies increasingly encompass much more than the essay and the report. As Lankshear (2000) points out, literacies change constantly as a result of cultural and technological forces. We academic skills advisers need to open up our discourse to a broader church, and start to focus on much more than essay structure and the cultural niceties of referencing, helping students to gain more flexibility and awareness of the many uses of language—and visual language—, so that they can let their voices be
heard against a backdrop of other voices in their disciplines, singing many different songs for many different audiences (Ivanic, 1997, Cadman, 1997).

Conclusion

Talking with the students and with each other has led us to some important insights regarding ways of scaffolding students into academic literacy. Generally, it has affirmed the importance of transitioning students into academic literacy both in the early part of their program as well as in an ongoing way. The latter point is important when consideration is given to the diversity of literacies students are required to use as they progress through their degree. In particular, the feedback from students has reinforced the value of setting demanding readings and assessment tasks early in a program while also offering high support to scaffold students to extend their skills. High support can also be offered by establishing a close alliance between subjects and academic skills support programs as a way of encouraging students to use such facilities. It is clear that students who do use this form of resource learn much about what is required in reading and producing academic texts, however, many students need encouragement to use them. High support can also be offered by working on readings and assessment tasks in a systematic way in tutorials and offering an opportunity for a resubmit on an assessment item with detailed feedback early in the program. This allows those students with low-level skills to understand what aspects of their skills are letting them down, how they can improve them and the opportunity to re-work a task so they can see the difference. Selecting text books that are designed to support readers through a variety of scaffolding strategies such as definition boxes, diagrams, narrative examples, etc. also offers support as they engage in the discourse of a particular discipline. We also recognised a need to limit the number of assessment tasks so as to encourage deep thinking.

The study has led us to broaden our understanding of what constitutes academic literacy incorporating the diversity of literacies required in an academic program and in professional life. There is a need for academics to recognise that scaffolding for academic literacies is an ongoing task in university teaching. While students might achieve competence in the literacy skills of one kind of assessment, the diversity of assessment tasks with associated literacies requires continued attention. Finally, we have re-discovered the importance of listening to and learning from our students. We are grateful that they have been so willing to share their experiences with us.

Footnotes

1. This research has been approved by the University of Canberra Ethics Committee. Pseudonyms have been used for students.

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Mapping spaces and choreographing classrooms: A study of communities of practice, learning and identity

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Schools are sites, locations and spaces where multiple and diverse communities of practice are constituted. Through their participation in these communities individuals have opportunities to appropriate and perform particular identities. In this study, using Gordon, Holland and Lahelma’s (2000) metaphor of dance, we highlight the role of spatial practices in constructing and maintaining communities of practice. We consider how relations of difference and diversity play out in the choreography of the dance as we explore the identity work of the participants in a primary school classroom. The concluding discussion will focus on the implications of this study for teacher education programs.

Schools are sites, locations and spaces – both real and imaginary - where multiple and diverse communities of practice are constituted. These communities are dynamic as are their relationships with each other. Our use of space is informed by theorists of social space (e.g., Leander, 1999; Nespor, 1994; Soja, 1996) who focus on the ways in which space is organised and produced and how, as Doecke and Seddon (2002, p. 88) posit, “the design embedded in its production is linked to wider patterns of social division and inequality”. Taking a lead from these theorists, we argue that space is fundamentally involved in the construction of social formations such as communities of practice. Through their participation in the practices of a community, individuals are called upon to take up, and have opportunities to appropriate and perform, social and cultural identities. Learning to be a particular ‘kind of person’, to take up a particular identity, is envisaged as happening through participation in culture-specific social activities (Gee, 1992; Hirst, 2003; Hirst & Renshaw, 2004; Wenger, 2000; Wertsch, 1991; 1998). Communities of practice have specific characteristics relating to values and a tacit set of ground rules which are embedded within them (Renshaw, 2002). Through their participation in the spatial practices of the community, individuals learn which ‘dances’ or ways of participating are privileged, and which are not. It is through these ‘normalising’ practices that power is constituted and boundaries constructed: boundaries which can also “create divisions and be a source of separation, fragmentation, disconnection and misunderstanding” (Wenger, 2000, p. 233). As boundaries are constructed, and certain ‘kinds of people’ and ‘kinds of dances’ are recognised, represented and constituted, others are not. Thus participating in communities of practice can enhance, deny, and/or marginalise an individual’s potential to participate in society (Allard & Cooper, 2001; Cooper & Allard, 1999). In our discussion we consider how relations of difference and diversity play out in these communities through the construction of spaces, and the possibilities for choreography, by students and teachers together, to create new dances.
Methodology

The current study is part of a larger project. Data were collected during a six-month period using a range of ethnographic procedures. For example, classroom observations and semi-structured teacher interviews, conducted by University researchers (UR) and a student teacher/researcher (STR). The analysis of the data involved the identification of the participation patterns, or ‘dances’, in establishing the ground rules of the communities of practice that operate in this classroom, and by mapping the ways that spaces are constructed using the metaphor of dance, following the work of Gordon, Holland and Lahelma (2000). They describe the practices of school as “a complicated dance with formal and improvised steps” (p. 2). Both real and imaginary spaces play a part in the choreography of the dance, and are active in the ongoing construction of participants’ identities. In mapping these spaces we explore the movement, flow and rhythms as participants take up their positions. We discuss how relations of difference and diversity play out in the choreography of the dance.

Analysis

We consider three aspects of the ways space is re/constructed in the classroom. We begin with the construction of pedagogical spaces and spaces within these, then we look at the fragmentation of spaces and finally, at how spaces can be conflicting. Using the metaphor of dance we examine how these spaces are constructed through the performances of the participants. We ask: what is the ‘classroom dance’ and how do students learn it, how do they resist it, and what other dances are they participating in; how do dances overlap and what opportunities are available for extemporisation, improvisation, and the incorporation of different ‘steps’ in the creation of new spaces?

Context of the study

The school, located in a low socioeconomic area of a rapidly growing urban area of southern Queensland, caters for diverse social and cultural groups. The school buildings represent the growth of the neighbourhood over many years and reflect changing economic conditions. The old Queensland style buildings on stilts with verandahs sit next to newer brick additions and demountables (portable ‘temporary’ buildings) resulting in an eclectic mix, ramshackle in parts, with an air of disrepair. Classrooms are cramped and very hot in the summer. The primary class (10–12 years olds) of 25 students (13 girls and 12 boys) is located in one of the demountable buildings, initially erected as a temporary measure to cater for the growing school population. Like many other classes in the school, some students have language backgrounds other than English (LBOTE). Five of the students in this class receive regular English language support. The classroom teacher was rather disappointed to be allocated a small classroom in half of a demountable without verandah space. Although it has a pleasant outlook the room is drab, grubby and uninteresting. The dividing concertina door prevents one wall being utilized. The teacher has tried to organize this space to be an effective pedagogical space for all of the children in the classroom. The desks are arranged in U shape with two rows of three desks in the enclosed area of the ‘U’. This surveillance arrangement ensures all students face the
‘front’ where a whiteboard is located. The classroom is divided by this whiteboard. The smaller space behind is used for withdrawing students for individual or small group activities.

**Dancing spaces**

*Pedagogical spaces within spaces within spaces*

The teacher frequently changed the seating arrangements during the course of the observations. From the first day she made it clear to students that she was the one who called the tune: “I choose where you sit…it is my choice …I make these choices based on your learning” (UR). These decisions are based on a range of factors and to cater for specific students. For example, she initially considers left-handedness (end of row), shortsightedness and hearing problems (close to the front), learning difficulties (front row) and behavioural problems (close to the front). Then, from her observations of students’ working habits, she decides who their partners should be. If they are unable to work quietly and attend to the lesson she relocates them. Neither the physical nor communicative spaces were organised to facilitate group work. This way of organizing the students to construct a pedagogical space resembled a line dance: the students were required to follow the teacher, the ‘caller’, and follow the steps as they danced in their own spaces. If they impinged on another’s space they were moved. Mostly, if students weren’t ‘in step’ they were considered disruptive or resistant - there was little room for improvisation or negotiation.

The majority of the teaching day appears to be conducted in a didactic style, students work from their desks. Hence, the students get little opportunity to speak with the rest of their classmates, other than the people directly beside them (STR). Some students found it difficult to follow these steps. On the first day Theo, a new student who had just arrived from Serbia and spoke almost no English, is a surprise for the teacher. Although he is often ‘out of step’ he seems to be eager to understand and enthusiastic to participate, and appeared to concentrate on the teacher’s direction and the activity. Even though he understands very little of the language he uses contextual clues to aid his understanding, frequently looking around to see what other students are doing, he actively appropriates the ways of being that position him as a ‘good’ student. The teacher helps to ‘bring him into step’ to facilitate his learning by creating a space for him where he is allowed to transgress normal classroom rules as he learns the steps. He is partnered with Dragma, a student with the same language background, and they are allowed to communicate quietly so they don’t disrupt the rest of the class. The identity that Dragma takes up is not constituted wholly by the teacher but has already been established outside the school space through family and cultural networks.

Dragma is an engaging student who seems eager to please and to offer information. She is also from the same cultural background as Theo. Serbian is the language spoken at home. Her mother uses English fluently and her father’s English is limited. Dragma was born in Australia but has spent some years attending school in Yugoslavia. Dragma’s family have assisted their neighbours, Theo’s family, to settle. Dragma takes a caring and nurturing role to support Theo in both his learning and his
Dragma might sometimes find it a strain. In addition, Theo currently appears very popular, which might appear as competition to Dragma who seems to seek acceptance….I wonder if Theo should have a boy sit next to him now in order to create a same-sex friendship. I noticed today as he ran to lunch he seemed a little lost as where to go and there was no-one waiting for him outside the classroom. (STR)

The teacher also suggested that Dragma’s time and learning was being overtaken by her nurturing of Theo, precluding her involvement and engagement with other students. This could result in her marginalisation from some of the ‘good’ girls in the classroom. The teacher was also concerned by Dragma’s academic performance; although her spoken English is reasonable, her written English is very weak. The teacher decided that the dance partners needed to change in an effort to enhance the pedagogical space and to reflect and mirror the classroom dance. Her strategy was to take the pressure off Dragma and move her next to an academically ‘stronger’ girl who could take the lead. Dragma could ‘learn the steps’ of the ‘good’ girl. She moved Djuric, also of Serbian language background, to sit diagonally opposite Theo, to provide learning and language support. Whilst increasing the physical proximity of the support the teacher also increased the gender proximity, arguing that Theo needed a ‘same-sex role model’ (UR). This arrangement proved temporary as Djuric left for an extended visit to Serbia a week later. Theo was then partnered with a ‘high achieving’ male student. We understood that there was a concern about him becoming too girlish in his constant association with Dragma – perhaps not learning to take the ‘male’ lead and thus precluding him from establishing an ‘appropriate masculine’ identity. His new partner, Martin, though considered ‘bright’, is not a ‘good’ student. Does this choreography encourage Theo to take up another position, interpelling a particular form of Australian masculine identity?

Fragmenting spaces

As well as trying to create pedagogical spaces by choosing and changing partners for the classroom dance, the teacher also works to maintain the dominance of this dance by dividing and fragmenting spaces of resistance. These spaces are often the ‘boys’ disruptive’ spaces. Physically this is frequently achieved by using the ‘good’ girls’ bodies to separate the ‘bad’ boys’ bodies. Partnering a ‘good’ girl and a ‘bad’ boy is one means the teacher deploys to reduce resistance, break up one group of disruptive boys in the classroom, and prevent a dominant group from developing. The strategy of ‘divide and rule’ works to maintain the power and control of the teacher. In the following we consider how Kim works to construct a space of resistance. Kim is also a LBOTE student. His background is Korean. He has been living in Australia for more than a year, and is a little older than the other students. He works hard at maintaining relationships in the classroom. These are not only achieved through
dragma's family networks has been transported and productively deployed in the classroom. A pedagogical space within a space has been constituted here, one that enables Dragma to work as a surrogate teacher. This is a pivotal relationship in supporting his apprenticeship into this learning community, although the following observations suggest it might not always be productive:

social relationships. She frequently turns to him to make suggestions, translate, give advice and explain what is going on in the class. A space constituted through family networks has been transported and productively deployed in the classroom. A pedagogical space within a space has been constituted here, one that enables Dragma to work as a surrogate teacher. This is a pivotal relationship in supporting his apprenticeship into this learning community, although the following observations suggest it might not always be productive:
physical and visual proximity, a result of the desk arrangements, but the space he creates is populated exclusively by other boys; he constructs and maintains a gendered space.

Kim is constantly sending looks and speaking quietly to three other boys in the classroom. He is not overtly disruptive but none-the-less has an effect on the other students around him by gaining their attention during lessons. I wonder whether the differences in classroom environments (between Korea and Australia) has lead Kim to feel an unaccustomed freedom? (STR)

In this class, it is not uncommon for gendered spaces to be choreographed through competitions for example, in word games. In one of these games, or ‘competitive dances’, the girls’ and boys’ sets, comprising same sex partners, used a dictionary in a contest to find the meanings of words. Kim and his partner were wallflowers for a while, unable to compete as they lacked a ‘proper’ dictionary. After a while, Kim turned to his electronic dictionary and working with his partner joined the dance. However it was difficult for them to learn the new steps; it took time for Kim to grasp how to use this dictionary differently – he had to select an English dictionary rather than the bi-lingual dictionary that he had been using previously (UR). In the activity following this competition Kim continued to use the dictionary and explore a range of other words.

Kim, Arvids and Nick have formed a small group with a lot of giggling and talking and little else, though they are not disturbing the rest of the class. Kim is using an electronic dictionary, which he shows to me and appears to be using. I leave them to their own devices for most of the lesson but little gets done, while the rest of the class is almost finished. Eventually Kim and Arvids are moved (by Helen’s recommendation) to the front wet area to finish their work, while Nick is moved to the back of the class to finish alone. Kim and Arvids continue to giggle and the electronic dictionary appears to be a source of humour, so I confiscated it. (STR)

Kim and his partner had been exploring words related to sex during this session, they create a titillating space as they dance, their bodies arching over, shoulders high, heads down, with occasional sideway movements as they check their position and guard their ‘game’. The teacher discovered this ‘game’ when she examined the search history of the confiscated dictionary. The affordances offered by this technology (search history) served to embarrass Kim, making the boys’ private space a public space. In their discussions at the end of the school day the teacher and student teacher/researcher find this incident both amusing, but also one that they must regulate: “Helen and I both find this amusing but agree we will have to watch the use of the dictionary in the future!” (STR). Their amusement, ‘boys will be boys’, invites us to consider their collusion in the gendered construction of boys, the kinds of things boys are interested in, and the kinds of dances that boys will engage in – we wonder what the response would be if girls had been involved in this activity. Gender has been differently invoked to create spaces; paradoxically it has been deployed both to fragment and to reconstitute certain kinds of spaces - to break up bad boys’ spaces and to reconstitute gendered spaces, reinscribing traditional boundaries. An opportunity was lost for choreographing a new dance, a hybrid dance where Kim, an expert technology user, could work with a partner with other expertise. This reciprocity could highlight the value each other’s differences.
Conflicting spaces and contested spaces

In this final section of analysis we draw attention to how spaces can be contested and collide. The incident we explore involves Alan, a student excluded from the Language other than English (LOTE) lessons, apparently for his benefit. These lessons are conducted in the classroom space.

Alan is diagnosed with ADHD but does not appear to have any overt problems in regular class time. Helen feels that the loudness and excitement of the LOTE lesson may simply not meet Alan’s learning needs. (STR)

Alan is excluded from the pedagogical space the LOTE teacher constructs for the learning of a second language, a loud and exciting space, a space in which the dance is not as structured or regulated as the ‘normal’ classroom dance. The LOTE space, the classroom teacher argues, is not conducive to Alan’s learning. Alan is constructed in passive terms, as a student who has little control over his behaviour; excluding him from this differently organised and less regulated dance is an effort to prevent Alan being a ‘bad’ student. Similarly, the LOTE teacher argues it is for Alan’s own good - “so he won't get into more trouble from the school” (STR). Her decision to exclude him was due to continual harassment (STR). Here we see him constructed as an active troublesome provocateur. The following incident occurred at the end of a LOTE lesson:

At the end of the class there is a loud confrontation between the [LOTE] teacher with a student [Alan] that re-enters:

T: Alan, you are not meant to be here while I’m here
S: It’s over. It’s lunchtime
T: Go! Get out!
S: No! I’m not going and you can’t make me! This is my class
T: (Walks towards door). Go! No? OK your choice but there will be consequences (STR)

Following this clash, the student teacher/researcher reports:

The LOTE teacher informed me (not discreetly) that Alan had told her that he is Australian and that he doesn’t need to learn another language in this country. She claimed she would not put up with ‘that thing’ in her class (STR)

Here we can see the collision of conflicting spaces. Alan and the LOTE teacher have both constructed spaces in this physical space of the classroom. Alan’s denial of the LOTE teacher’s right to teach in this physical space is about claiming back this space for himself as a member of the class. He argues that the LOTE dance is over. A different identity is constructed for Alan here. In his refusal to participate in the LOTE teacher’s dance, and his rejection and resistance of the identity of the LOTE learner, he is constructed as dancing to another tune, a nationalist tune. He is positioned as a supporter of an Australian monolingual space, a space where only English is needed. By inference, this ‘Australian’ dance excludes the LOTE teacher. There is no space for interanimation, for negotiation, for dancing a new dance together.
Discussion

In this paper we set out to consider how relations of difference and diversity play out in the choreography of the classroom dance. We have seen how students participate in the construction of pedagogical spaces, the identities available to them in these spaces and the identities they invest in or resist. We have also seen how the teachers are closely implicated in this process. The diversity of the dances, the groups within the groups, the fragmentation and the conflicting spaces remind us of the ever changing, complex and dynamic places that classrooms are for students and teachers. We are also reminded of the relations of continuity and temporariness. Whilst classroom spatial practices continue to look much the same the classroom does not; the increasing mobility of students, their relocation and the effects of globalisation, even the temporariness of their classroom building suggest a diversity of spatial practices.

Students are learners and they learn in a myriad of ways and in a variety of spaces both real and imagined. We have considered how these spaces are implicated in their learning, how they are constructed, and the relationships between spaces - the small private spaces and the one public space. Although we found some overlapping spaces that allow for flexibility and movement, the borders of the dominant classroom space were closely monitored. The students with culture and language backgrounds that tend to marginalise them, to make them ‘out of step’, are gently and consistently encouraged and cajoled to ‘take up the main steps’. In most cases they do this without resistance. Most students keep in step and when they don’t they are brought ‘back into line’.

There are various images of the dance that we have invoked to describe these spatialising practices. There is the line dance lead by the teacher who takes the students through the steps, sets out the rhythm and makes the moves apparent for the students. Students respond to these dances in different ways. Theo and Dragma dance together and have mutual ways of working and supporting each other. Kim leads a separate dance and many of the students observe for a while and tentatively follow a few of his steps. Alan rejects the unruly LOTE dance, is it because he needs the structure of a line dance or that he considers the LOTE dance as invasion of an Australian space? From our analysis it is clear that at different times there are dominant and marginalised spaces, that offer students different kinds of possibilities to be different kinds of people. We wonder about different forms of dance that may be possible.

Conclusion

By including an analysis of spatial practices we have broadened our understandings of sociocultural practices and the ways in which privilege is enacted. The ways that ‘good girls’ and ‘good boys’ and their ways of doing and being are highly valued in the classroom and how their dancing is used to demonstrate the excellence of the pedagogical endeavours. Meanwhile those who are out of step are re-partnered or excluded. This kind of analysis can help teacher education students reflect on the ways these processes are implicated in their own lives, and how social relations are constructed and can be interrogated, challenged and interrupted. These students need
spaces themselves to reflect on their learning and to watch the dances and reflect on what ‘kinds of people’ are valued and ‘what kinds of dances’ are recognised, as they consider the ways that teachers can most actively engage all their students.

The metaphor of dance has proved useful in understanding the complexity of classroom relationships and the way macro social practices are both reflected and re-constituted in the classroom. It can help teacher education students consider how teachers can use resistance and conflict and contestation to build more productive pedagogical spaces, rather than continuously reinscribing old dance patterns. By considering the classroom as a space for students to try out and initiate new steps and improvise the dance, there is potential to create new hybrid dances and spaces. The construction of productive communities of practice and pedagogical spaces offer the possibility, as hooks (2003) suggests, to open up new spaces for dialogue and to cultivate hope. If teachers see themselves as choreographers, as active in the construction of the dance, then steps can be changed, the dance can be opened to nuance and stylised to suit particular purposes; other kinds of dances can be considered. For example, circle dances could encourage the dancers to maintain their own style and allow them to perform individually or as a collective, that provide the floor for difference in community – not always a harmonious performance, but a community of practice that is about creating dances for diversity. Allowing for the expression of difference within the dance. The classroom dance then becomes an ongoing and dynamic process, a collection of diverse movements, not fixed prior to the dance, but evolving and responding in socially just ways.

Spatial metaphors permeate much of our thinking. Our sense of space is complemented by our sense of self as both part of and as separate from the world. The power of space is clear when one sees students in close proximity in active learning in small classrooms. Students react badly to being enclosed too closely in spaces. We ask how can the dance become emancipatory? Who is in the front line of the dance? Who is hidden in the back row of the chorus? Space and movement matter. Schools and classrooms provide spaces for learning, spaces for locating and positioning students. Spatial control is apparent in classroom settings, the ways that teachers place students, space students and construct students is crucial. The ways teachers choreograph the dance is an essential element that education students need to take account of in their professional practice. This project involved a teacher education student learning to dance as a researcher and the creation of a hybrid identity of teacher/researcher by appropriating the steps, for example, focussed observation, systematic analysis and critical reflection. How teacher education students actively construct themselves within the possible identities available to them is crucial for their learning and professional experience in communities of practice.

References


Teacher challenges:
Making spaces for children with autism

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Teachers’ fear of the unpredictable behaviours children with autism presented in the everyday context of the regular classroom, dominated their reactions and treatment of the disorder. Positive and negative connotations surrounding autism were analysed in terms of their meaning and consequences for children with the disability. Participants’ dialogue indicated how they produce and conceptualise autism. In essence, the disorder was produced as difference and deficit. Terminology has either enhanced or suppressed others’ perceptions of individuals with autism. Society’s experience with autism and the historical connotations surrounding this phenomenon influenced the nomenclature used to describe the disorder. Hiding a disability proves futile in changing the dominant discourse and challenging the ways individuals with autism are perceived in society.

Zachary the case child is in year four at a regional primary school. He is a bright, mousey brown haired boy with a gentle disposition. The nine year old loves his football and motor racing. He is also autistic. Zachary's autism is produced as difference and deficit throughout his schooling contexts. The terminology available to his teachers and carers to describe his behaviour and progress has either enhanced or suppressed perceptions of Zachary as an individual with autism. Society’s experience with autism and the historical connotations surrounding this phenomena have influenced the nomenclature used to describe the disorder. But as I argue here, hiding a disability proves futile in changing the dominant discourse and challenging the ways individuals with autism are perceived in society. Poststructuralist theory provides a framework to investigate the representation of autism through spoken texts (Wright 2000). In this paper I present excerpts from my interviews with Hugh, a teacher in a regional primary school, and Zachary’s parents, Alexis and Exley. All names used throughout are pseudonyms. Hugh has taught Zachary twice throughout his schooling career, once in Kindergarten and again in year four. Zachary is now nine years old. He was originally diagnosed with Asperger’s syndrome however, he has been subsequently described by his teachers and aides as ‘autistic’. Zachary was also interviewed as part of my doctoral study, along with two aides, and his teacher from the preceding year. Throughout this paper, I argue that as Zachary’s teacher, Hugh is passively positioned in relation to the discourse of disability. He is thus unable to intervene in pre-existing classroom routines to plan for Zachary’s inclusion. I draw on the work of Walkerdine (1990), Wright (2000) and Davies (1991) to analyse how Hugh and Alexis position Zachary and his peers in relation to dominant ‘regimes of truth’ in disability discourse as played out in the school situation. Rather than assisting students and teacher to think and behave differently from the ‘othering’ behaviour that discourses of disability have produced historically, my data suggests that integration policies may in fact be reinforcing gendered and deficit discursive norms among children. Unless teachers are prepared to take an alternative role in
naming, adapting classroom learning practices and foregrounding social skill development among all children, then those with a disability, like Zachary may continue to be actively produced as abnormal and dis(en)abled as social subjects through their ‘inclusive’ school experience.

(Dis)enabling disclosure of discourses

Discourses operate to signify people’s positioning of themselves and others in society. Language use, therefore, indicates how fractions in society are positioned in relation to certain discourses and how this either enables or (dis)enables them. As Jan Wright (2000, p. 153) argues, discourse acts to develop “meanings, subjects and subjectivities” through their use in social practice.

Wright (2000) discusses how teacher talk manages and disciplines the body’s physical movement. These discourses act to (re)produce how others think about bodies and how they should act in certain environments and contexts (Wright 2000). My doctoral research project also examines how significant others around those with autism enable or (dis)enable those with the disorder through their use of language in discourses which perpetuate notions of disability and ways of interacting with people with disabilities among to the younger generations to which they speak.

What is immediately striking in my data is the degree of silence which surrounds Zachary’s autism in school. Hugh regards diagnosis disclosure as superfluous. He portrays Zachary as a child needing supervision. The other children in his classroom rely on Hugh’s non-verbal behaviours to decipher messages about Zachary’s autism. The teacher looks “over in the corner where Zachary is” to indicate to the children his reference to the child. Talk and discussion around Zachary is hidden. His diagnosis is produced as a topic not to be discussed openly around him. The teacher thanks others for their behaviour towards Zachary in a covert manner:

…I think you don’t have to give the name, they know. At different times, I’ve talked about Zachary when he was in the classroom and just put it in, but the kids know who I am talking about. I might even just give a look over in the corner where Zachary is or something. I might be thanking the kids for their behaviour. I often thank them, let them know they are doing a good job with Zachary (Hugh).

This silence may be interpreted to mean that Hugh, as teacher, is unable to deal openly, or effectively, with Zachary’s learning needs in the classroom.

…I think in the end they probably do know ‘autism’. I don’t think I have actually mentioned autism to my kids this year …it is not that important for the kids, they know he is different and they enjoy the difference…. (Hugh)

Hugh initially suggested he has mentioned “autism” (not Asperger’s syndrome) in the general classroom. However, here his story changes. The word “autism” has not been used this year in front of the class. Hugh’s uncertainty about disclosing Zachary’s diagnosis can be detected through his constant rephrasing. The teacher’s description of the children’s understanding of diagnosis disclosure is characterised by uncertainty: “I don’t think, I think” and “they probably do know.” This signifies Hugh’s own lack of understanding about students’ knowledge base surrounding Zachary’s autism. It
has never been a legitimate part of classroom planning and management. Hugh remains passive, he does not program and monitor the regular children’s knowledge about autism. As a result, Zachary’s ‘inclusion’ into the regular classroom is formulated ad hoc, in response to daily circumstances. The disorder is not spoken as one of the factors that imposed on the classroom’s operation.

**Teacher’s passive pedagogy – defying the notion of inclusion**

Child-centred pedagogy asserts the role of teacher as passive: a watcher, observer, monitor and facilitator (Walkerdine, 1990). In Walkerdine’s (1990, p. 137) terms “Teacher and mother are defined as ‘passive’ in relation to the child’s ‘active’. They are nurturant, facilitating, sensitive and supportive, and they know when to intervene but not to interfere”. This ethos can be detected in the discourse entrenched in Zachary’s schooling. The child is presented as the controlling centre of his environment. The teacher on the other hand acts to facilitate Zachary’s integration into the regular classroom by offering support when required. The teacher only intervenes when the need arises. Intervention is not pre-planned. This results in the attribution of success in Zachary’s integration to the individual child. At the same time, Hugh fails to acknowledge Zachary’s misalignment with the social interaction of the other students in the integrated environment. This makes him pawn to the circumstances of the everyday classroom. Success is dependent on fate. The child is tunnelling through a darkened passage of the unknown. His apparent control is limited by the contingencies presented in the integrated environment.

Walkerdine’s (1990, p. 119) work in the area of gender has brought her to argue that “What the [traditional] pedagogy does is produce norms of what is supposed to be, and to be happening: it therefore pathologizes the difference which it finds from the child it defines”. Therefore, pedagogy (re)produces the dominant discourse through its practice. Hugh defines Zachary’s behaviours as ‘different’. The child is regarded by the schooling discourse as not fitting the status quo. The child is not being liberated from difference or included as part of a more diverse constitution of the norm. This defies the notion of inclusion.

...There are ... times when they don’t enjoy the difference but they’re quite prepared to put up with that because there are positives as well as negatives (Hugh).

Hugh warns against using labels, highlighting their dangers. He feels labelling is not important. Children need only understand that Zachary is different, and to “enjoy” this variation. However, occasionally, as he says, the children do not enjoy this difference. They are required to endure or “put up with that.” But again, the difference becomes nameless through Hugh’s use of “that” as a descriptor. Children tolerate some of Zachary’s variations: however they never understand nor learn to accept these as part of regular social experience. They recognise Zachary’s positives, which counteract his apparent negative traits. But in order to accept the child, the regular students undertake a weighing up process. Special consideration is accorded to this practice, their acceptance is not innate or natural, and it must always be given. The dominant discourse drowns the child and produces him as always different in the eyes of his peers.
The playground abyss

During Zachary’s kindergarten year, the lunchtime playground was difficult for him. It posed as a monstrous abyss engulfing the child in a world of uncertainty and havoc. By year four, however, Hugh regards the playground as the child’s main source of social learning. Once again, Hugh attributes the responsibility for success in this domain completely to Zachary. The child is responsible for and in control of his own social programming. This signifies a lack of recognition of the schools responsibility to promote a general social contribution towards Zachary’s success.

When describing Zachary’s playground experience, for example, Hugh takes the view of a reflective onlooker, leaving the onus for ensuring Zachary’s socialisation with the regular students with him. Hugh abandons the child to be alone in the playground. The regular children acknowledge Zachary’s aloneness and draw him into their circle, but this sort of interaction is always unplanned and haphazard. The educational responsibility for developing Zachary’s social skills is attributed to no-one. Teachers’ lunchtimes are spent away from the children, with the exception of rostered duties.

...lunchtimes early on in Kindergarten lunchtimes were a big thing for him. Crowded, the situation was uncertain the whole time because it wasn’t a structured time ...[now in the] playground, I think, it is just the main social learning type thing for him I think he has done really well ...At first he would have been very alone then the rest of the kids would come in around him ...(Hugh)

Davies (1991, p. 4), in her work on gender, asserts “Much of the adult world is not consciously taught to children, is not contained in the content of their talk, but is embedded in the language, in the discursive practices and the social and narrative structures through which the child is constituted as a person, as a child and as male or female”. In relation to the current study, the interview data suggested that children involved in the unstructured lunchtime play with Zachary develop gendered understandings about interaction with the child from the teacher’s lack of intervention at this level. This may explain students’ tokenistic approach to play with Zachary. The child is included in games at a superficial level. Zachary remains ‘outside’ the range of the normally, socially constituted child. As the following extract from a shared interview conversation with his mother and father shows, Zachary does not have ‘a friend’.

Exley
But friends and company wise he does not crave it...We have not seen any negativity by not having a friend....

Alexis
...He does not come home crying that no one will play with me. He is quite happy to be by himself and he will go and talk to the teacher

Exley
The teacher on playground duty or go to the library and just hang around

Alexis
And even if kids are there they will go “Hello Zachary! How are you going?” so everyone knows him, so you know
Female angels

Zachary is mothered at school. His classmate, Kendall, has been his dominant caretaker and, as a result, he regards this little girl to be his best friend. However, as we have seen in the extract above, Alexis questions Zachary’s understanding of the notion of best friend. Kendall does not conceptualise the term ‘best friend’ in the way Alexis does. Alexis believes Zachary regards a best friend as someone who “would help him or watch him.” However all the girls in his class fulfil this mothering role. Zachary is therefore positioned as one who needs constant watching and helping. He is under constant surveillance and the watchful eye of many significant others. In this way, the child is therefore constituted as more childlike than his same aged classmates. They are there to govern him.

... there was a little girl in Kindergarten she treated him like her, she was the mum and she just looked after him. It is only this year that Kendall has not been in his class and I thought, I wonder how, cause he always says Kendall is my best friend. But he does not mean it in like you know best, best friend. If there was a problem she would help him or watch him and all the girls do though they love him to bits in the early years (Alexis)

The regular children have been enticed into a version of the child-centred pedagogy. The teacher’s presence or lack of involvement in Zachary’s education has created the discourse for the other children to act upon and (re)produce it as their own. According to Walkerdine (1990, p. 137), the child-centred approach aims to develop a ‘rationally ordered and controllable universe… It is also deeply involved with the attempt to describe and therefore regulate ‘woman’, ‘the child’, ‘the working class’, ‘blacks’ and ‘the mad’”. The other children have observed and adopted the dominant discourse, which advocates a need for others to survey those with disabilities. This tendency is particularly obvious through the girls’ desire to monitor Zachary and regulate his behaviour in the playground. This practice ensures that society remains rational and controlled. Thus, as Walkerdine (1990, p. 137) asserts: “…discursive practices themselves – in producing the terms of the pedagogy, and therefore the parameters of practice – produce what it means to be a subject, to be subjected, within these practices”.

Kendall was removed from Zachary’s class for the first time this year. Alexis is puzzled as to why this was done. Her bewilderment is indicative of the poor communication and social relations between the school and the home. Additionally, Alexis’ reaction signals her support for Kendall’s mothering of Zachary. She knows her child is being looked after, suggesting her own belief that Zachary is more childlike than his regular peers. He is a child needing governance.

As Walkerdine (1990, p. 76-77) asserts, qualities of “nice, and kind and helpful” were the three most common signifiers posited as desirable characteristics for girls to possess. The girls in Zachary’s school demonstrate these traits in their interactions with the child with autism. The girls, as opposed to the boys, take on the role of nurturer. Their surveillance renders Zachary powerful, and at the same time, incapable. The girls take up their traditional role as nurturer, which makes thempawn to Zachary’s needs and desires. The child moves through the playground experiencing conflicting subject positionings. Those governing him become subject to him. The girls organise themselves around Zachary, therefore, they hold the conflicting positions of influencing him and being subject to his movements, needs and desires.
Work conducted by Foucault (1980) inscribes notions of language use and the impact these have on forming power relations within society. These relations are not unitary; rather, they discretely shift and struggle to develop subjectivities (Wright, 2000). Children are rendered powerful and powerless as they move through the discourses presented (Davies, 1991).

Alexis asserts her knowledge about the girls “love” for Zachary. However, these feelings were generated during the early years of Zachary’s schooling, and she does not know whether the girls still demonstrate these feelings. This again highlights the lack of communication and information Alexis has about Zachary’s schooling compared to the earlier years. What the girls “love” is his weakness and ‘powerlessness’, in terms of typical male behaviour.

**Dis)enabled by discourse**

Words shift together, characterising what they surround. Discourses always generate meanings which in themselves always represent the opposite of what is signified – enabling or (dis)enabling those they describe. Walkerdine (1990, p. 138) in her work found “…signs which are linked within discourse also pile or heap together to provide evidence of a related classification” (original emphasis removed). In this sense, Zachary is described in the current study through words relating to disability. The child is placed within the parameters of dominant notions of disability and therefore, he is compared to others also situated within this framework. When Hugh describes Zachary’s personality, the child’s inherent or static qualities are compared to the disability discourse, whereas those personality traits perceived as learnt or developing derive from nomenclature associated with ‘normality’:

[And the characteristic that Zachary has that makes him successful in the integrated environment?] ….. the increasing ability to see the humour and he likes to be humorous himself and he has got a great way. He is getting to be a good, a better conversationalist. Get the right things asked about your health or “How are you going” or what you did on the weekend things like that. General happy natured kid …. He likes things ordered, of course, but we made a big push at being flexible that is our key word for this year, our class, flexibility, be flexible [And that’s working with him?] Yeah I think it has. Letting him know that he has got to be flexible too, “Even though we said that we would go outside at ten thirty and it is now 10:45, but we will be there, cause we have not finished, such and such.” But earlier on he might have kicked up a stink “It is 10:30 Mr Parry-Okeden, we have to go, we have got to go.” But no no worries (Hugh)

Hugh positions Zachary as successful in the integrated environment for his personality traits: humour, conversation ability and happy nature. All aspects mentioned represent elements of social behaviour. As I have argued above though, this is the exact social behaviour that has not been directly taught through instruction. Zachary demonstrates an “increasing ability to see the humour and he likes to be humorous himself”. Hugh formulates this ability as a developing quality. The child has improved on his previous attempts. This increase in humour is conceptualised as a preferred trait to display. Thus, the child is being appreciated for his demonstration of qualities that reflect those of the status quo.

Hugh’s assessment of Zachary’s conversation ability is modified as he speaks: He changes his assessment of this from “good” to “better.” The child is being compared
to his regular classmates. He is not quite as proficient as them but, nevertheless, demonstrates improvement. Zachary is asking the right questions. He is gradually developing fluency with society’s methods of engaging others in conversation. However, he has to generate his own learning about social interaction. These skills are not taught.

As Hugh says, generally Zachary is a “happy natured kid” except on occasions where he becomes distressed over changing routines. However, this autistic manifestation is diminishing due to Hugh’s constant reinforcement of “flexibility”. The child “has got to be flexible too”. Within this discourse, the child is constituted as part of the whole. He forms part of a system where everyone must be flexible. Zachary must be like the other children. His behaviour is judged according to that demonstrated by his regular peers. The general students set the benchmark for both correct and naughty behaviour.

Hugh considers Zachary’s nice nature to be “a big plus.” Interestingly, this aspect is portrayed as a static quality, whereas his ability at humour, conversation and flexibility are developmental. Thus, according to Hugh, before Zachary had developed his ability to converse with others and be humorous, the only factor constituting the child as successful in the integrated environment was his “nice nature.”

The developmental social qualities of humour and conversation ability are presented as heightening Zachary’s successful integration into the school environment, yet they are not included in the regular curriculum.

**Conclusion: Teacher challenges – unshackling notions of deficit**

These data suggests that Zachary’s experience at school may in fact be instilling gendered and deficit discursive norms among children. Individuals with disabilities, like Zachary, may remain to be actively produced as abnormal and dis(en)abled as social subjects through their inclusive school experience, unless teachers are willing to take and active role in naming, adapting classroom learning practices and foregrounding social skill development among all children. Just as Davies (1991, p. 12) asserts, “Genitals do not have to be linked to feminine or masculine subjectivities unless we constitute them that way”, similar notions can be connected to (dis)ability. Connotations of deficit do not have to relate specifically to (dis)ability unless society structures discourse this way. Access to discourses that unshackle the confines of (dis)enabling notions, acts to eradicate elements of deficit within (dis)ability. Poststructuralist theory allows individuals to select from a variety of positionings and adopt those most productive:

[So he is successful in the integrated environment because he has got that nice nature?]
Yes that’s a big plus. We have two Down’s girls in the school too and one is very happy natured and one is very sour and kids warm much more easily to the one with the easy nature. Well Zachary is one with a good happy nature, easy to warm to him ..... Hugh

Hugh compares Zachary to children with Down’s syndrome. The child’s nature makes it easy for others “to warm to him”. Thus, change is not effected from society; rather, it emanates from the child with a disability. One girl with Down’s syndrome is not accepted by her peers because she is very “sour”.

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Zachary’s success within the integrated environment is constituted through and constrained by the abilities of his regular counterparts, namely the qualities of humour and conversation ability. However, he is compared to individuals with disabilities when defining how regular students’ position or perceive him as someone to be liked. The child’s static quality, being his ‘nature’, is defined within the constraints of disability discourse. Zachary shifts between positionings of normalcy and those of disability.

Discourses position people in society. Zachary was produced as different which (dis)enables him in the schooling context. Within the integrated environment, this child is left to control his own social integration. This practice reflects the dominant child-centred pedagogy where teachers act as passive facilitators to students’ learning. Teachers’ interactions with Zachary shape the way regular students engage with him. Their lack of effective social programs means children take a tokenistic approach to including the child into their playground games. The females in Zachary’s life have adopted the dominant discourse of caretaker. Zachary also functions in a discourse where his static qualities are defined through the disorder and the developing attributes in relation to normality. The child cannot escape the (dis)ability connotations and this framework (dis)enables him. Change needs to emanate from society’s characterisation and conceptualisation of (dis)ability. Schools and teachers may find that they can take a responsive and active role in adopting positionings that enable, rather than (dis)enable, children with autism.

References

Beyond pretence: New sensibilities for computing and communication technologies in teacher education

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Making particular reference to schools’ traditional relationships with CCTs (and the kinds of ‘pretend’ and ‘artificial’ learning/assessment tasks that this relationship has historically produced), this paper details a research and teaching agenda focused on exploring the potential of having students work on tasks with value to local and/or school communities. The paper maps the informing theories and current practices of schools participating in the ‘knowledge producing schools’ (KPS) agenda. Particular attention is given to the ways in which KPS schools are better positioned to respond to the needs of diverse student/community populations, particularly those students traditionally perceived as ‘at risk’.

Teachers and teacher educators are currently challenged to respond to a maelstrom of agendas. The current, often business inspired, indicator terms such as quality, innovation, change, client engagement, accountability, back-to-basics, conservative creativity, outcomes, boom and bust, market forces, flag an increasingly complex policy climate. In crude terms, these indicators seek to reshape schooling (and, by extension, teacher education) according to one or other business emphases. One problem with drawing on business-related thinking to rework schooling is that schooling tasks differ from business tasks in one crucial way: it is not always required to respond to ‘real’ world practices and as a result, many ‘in school’ activities have a ‘pretend’ rather than ‘real world’ nature. Despite the invocations of real, relevant or rich, the majority of tasks are artificial, safe replicas of the world beyond.

Clearly there are many reasons why schools tend to operate in these ‘safer’ spaces. But in a context where the uneven nature of educational outcomes across different student groups is once more under scrutiny, and where technological mastery is routinely identified as vital for contemporary youth continuing to do more of the same vis-à-vis CCTs is difficult to defend. This paper, then, explores a response to the challenge of meeting the needs of contemporary students in changed and changing times that goes beyond pretend tasks. Making particular reference to schools’ traditional relationships with CCTs, the paper details research conducted with schools, teachers and teacher educators who are together exploring the value of having students work on tasks that have value to local and/or school communities. The paper will map the theories informing schools participating in the ‘knowledge producing schools’ (KPS) agenda and provide examples of KPS projects. Attention will then be given to the ways in which KPS schools operating with a particular set of mindsets are well positioned to respond to the challenges opposed by diverse student/community populations, and to maximising the ‘quality’ of the learning experiences offered to students traditionally perceived as ‘at risk’. We begin with a brief overview of traditional approaches to CCTs in schools and teacher education.
Traditional approaches to CCTS in schools and teacher education

Broadly speaking, teacher education programs and schools have historically been in the business of finding educationally useful things to do with each generation of CCTs (Bigum, 1998). The use of CCTs in teacher education courses dates back to the time when they were first taken into classrooms by enthusiast teachers in the late 1970s. Universities and CAEs responded by offering postgraduate awards in “computer education” which have metamorphosed into a range of courses and options at both undergraduate and postgraduate level today.

However, as computer vendors recognised the significance of the school market, the activities generated by the curiosity of initial cohorts of enthusiast teachers was replaced by other activities motivated by claims that the use of CCTs could improve learning and life chances. Indeed, for a very long time, this mindset has dominated approaches to CCTs in schools and teacher education. CCTs are read as things that improve other things: learning, engagement, completion and so on. A key challenge, in this mindset, is ensuring that teachers are well positioned to get the ‘most’ of out their in-school technologies (there is a powerful efficacy literature reflecting this point but it is beyond the scope of this paper to explore that in detail here). As such, the often cited problems of obtaining educational value from CCTs in classrooms is solved by ‘better’ preparation of teachers coupled with the selection of ‘better’ software. Thus attention was given to identifying ‘new’ technologies and as each wave of improvements to CCTs appeared—colour, graphics, greater processing power (eight, to sixteen, to thirty two bits and beyond), networking, portability, wireless communication etc.—the educational importance of technologies was re-asserted (one interesting manifestation of this assertion is the emergence of so-called ‘laptop’ initiatives in countries such as Australia and the US (Patterson, 2003)).

Interestingly, the claims made for each set of CCT products were rarely tested: critical analyses of how and when learning was ‘improved’ have been few and far between. What appears to have been more important was that the next generation of hardware and software were found an educational role. In teacher education programs, we have long seen the mapping of particular theories of learning onto classroom practices using new CCTs and emphasis placed on teaching students how to integrate CCTs into existing curriculum. The resultant, well-intentioned, activities are subject to scrutiny not only because they tend to involve students using technology to ‘pretend’ to achieve real tasks (publishing a newspaper by using columns in word processing for example) but because they focus inwards upon school-ed versions of real world texts and practices and draw attention away from a consideration of the developments outside schools (Angrist & Levy, 2002). Some, indeed, don’t even make this much use of technologies (Cuban, 2001) However, while many schools have been busy finding educationally comfortable purposes for CCTs, the global economy (and the CCTs underpinning it) continue shape the life chances and opportunities of all students. Shifts that have occurred outside school have exacerbated the patterns of disadvantage (Vinson, 2004) that are evident in many schools and school systems. Nor is there any evidence to suggest that the pace of social change (and its articulation with technological change) is in any sense plateauing. Moore’s law (which arose from
an observation that the number of transistors able to be packed into a fixed area in an integrated circuit was doubling every year, and now is understood in terms of computer capacity doubling every eighteen months (Webopedia Computer Dictionary, 2004) suggests significant future impacts on the two big problems for robotics: recognition of speech and vision. Even with inefficient workarounds, the increase in processing power in twenty to thirty years time will provide workable solutions. What will this mean? That most of the employment generated by the most recent wave of automation, the low-paid service-type jobs will be wiped out. Conservatively, half of all jobs will be done by robots of various kinds. In twenty years time, the children who are now entering school will be in the early years of their (un)employment.

This creates an urgent situation for schools and teacher education faculties. It is frightening to imagine that while kids are preparing for a real world of unemployment and class division, schools and teacher educators might be still pursuing uses of CCTs in classrooms that conform to the current practice of making up pretend tasks to achieve problematic learning outcomes. Clearly, of course, changes taking place outside schools have had an impact on a number of school systems in most states. There have been a spate of curriculum initiatives that have been generated by a broad perception that schools may not be ideally aligned to meet the diverse needs of the young in preparing them for a fast changing world. Despite these systemic concerns and the adoption of ‘new basics’ and ‘essential learnings’ proclaiming the importance of ‘multi-media’, communication, futures and relationships the role of CCTs in all of these new initiatives remains true to the current mindset: artificial.

Moving forward

To move beyond the current, dominant way of thinking about and engaging with CCTs in schools and teacher education is not simple. In a related context, we have argued that (Rowan & Bigum, 2003, p. 187):

Moving beyond limiting performances is not just a matter of starting a new performance (sooner or later any successful performance will be brought back into the dominant explanatory system). Rather it is the constant introduction of new performances, the use of parody, mimicry and other devices to denaturalise old performances, and the ceaseless movement between the new and old performances that together give us the greatest chance of destabilising that which we wish to move beyond.

To work in this way requires a different ways of thinking about CCTs and education. In this respect, Michael Schrage (Schrage, 2000, p. np) makes the point that “To say that the Internet is about “information” is a bit like saying that “cooking” is about oven temperatures; it’s technically accurate but fundamentally untrue.” The biggest impact that digital technologies are having and will continue to have, argues Schrage, are on the relationships between people and between people and organisations. This idea that CCTs or indeed any technology can be seen in terms of the relationships they affect or mediate, the new relationships they support and the relationships they terminate (Sproull & Kiesler, 1991) is not, in itself, new. What is important here is the emphasis or mindset that sees relationships rather than information or technology itself as important. This is a significant shift. It means that rather than worrying about finding useful things to do with each new set of CCTs that find their way into schools, the focus becomes one of examining the changes in relationships that develop around
the deployment of the new technologies. Such enquiry necessarily engages a much changed and changing world and leads to distinctive forms of education, teacher education, school experience and related research. We turn now to the description of one form of this relationship centred enquiry.

**Knowledge producing schools**

In recent years, a small research agenda informed by this view has been developed at a number of schools in Queensland and Victoria. Dubbed the knowledge producing schools or KPS agenda (http://www.deakin.edu.au/education/lit/kps/), it represents attempts by schools to examine new, knowledge producing relationships with their local communities. In doing so, they have moved beyond what we call a “fridge door” mindset for student work. (We use ‘fridge door’ as a shorthand to indicate the normal pattern of knowledge production in schools, that is: student completes an assignment, a teacher assesses it, the assignment is taken home by the student and published on the fridge door for a few days before parents discretely discard it.) For knowledge producing schools projects always end with the production of a product or generation of a performance that exists beyond the teacher/student/family relationship. An important part of negotiating the production of such knowledge is that the product or performance is something that students see as being valued by the consumer or audience of their work. The resultant work is taken seriously and the students know it. These are not teacher driven artificial projects with students pretend to solve problems. They are real projects with actual outcomes: sometimes they are given to students as problems to solve, in other cases they are identified by the students. In both cases the work responds to ‘real world issues’.

For example, when the Principal of one of the schools was invited to talk about developments at the school to a state conference of primary school principals, she commissioned a group of year seven students to document the use of CCTs in the school on video and to produce a CD. The students planned the shoot, collected the footage using a digital camera, did the editing, voice overs, supplied music and credits and burned a CD. The students then presented the product to the conference audience of over two hundred.

Other examples include year six students working with the local cattle sale yards to produce a documentary of the history of the sale yards for a beef expo in 2003. In another instance, students were commissioned to videotape interviews with local identities as part of a tourism promotion for an old gold mining town. The agency who commissioned the students also commissioned a professional company to do the work. The agency chose the student work which was made available to tourists via touchscreen kiosks in the town.

What is important here is that CCTs are *not* the focus of any of the work. They serve useful roles to support the work of students and the work itself (not the technology underpinning it) has value to an outside group or audience. The role of CCTs in providing students with another means of expression has proven pivotal to the success of many of the projects. Producing knowledge in a primary school would have been much more difficult if students had to rely solely on producing written words. And
because technology is subordinate to knowledge production there are, of course, projects that have made no use of CCTs.

The other important element in this work is that community engagement occurs in two ways. Community becomes a source of problems on which to work and a resource for students to tap into in solving other problems. As Moore and Young (2001:459) suggest, there are now strong grounds for ‘reorienting debates about standards and knowledge in the curriculum from attempts to specify learning outcomes and extend testing to the role of specialist communities, networks and codes of practice.’

None of the individual activities or technologies or focus on community are particularly new. What is new is that all of these elements are drawn together under a new logic, that of schools as producers (not the consumers, guardians or managers) of knowledge. This logic positions schools as an important new resource for community and provides students with valuable experience in serious knowledge work. In this way schools are engaged in a fundamentally transformative role in the ‘real world’. However, it is not enough for schools to seek to redefine their relationship to knowledge. Instead, they need also to attend to their relationships with the increasingly heterogenous population that is found within, and around, schooling systems: populations of students, parents, care givers and community members as well as diverse groups of teachers, administrators and policy makers. We turn in this next section to a brief discussion of how KPS sites are challenged to deal with issues of educational disadvantage.

Schools, technology and disadvantage

To this point in the paper we have emphasised the value of connecting technologies and schools to ‘real world agendas’ in the production of student-driven knowledge. But there are some extremely important parallel arguments that need to be read in conjunction with this agenda if the KPS framework is to be genuinely valuable. In this section we want to highlight the key social justice perspectives that must underpin any work of the KPS kind.

First, while involving students in work connected to the real world is, as we have argued, a valuable step towards the reinvention of CCTs’ relationships with schooling it is important that schools venturing into this terrain bring with them detailed skills in the analysis of the environment they will encounter. Not everything that exists in this ‘real world’ is worthy of endorsement, replication or celebration. Indeed, many of the practices and products of ‘real’ world industries, communication systems, media products, bureaucracies or governments are problematic in a number of ways. From sexism to racism, homophobia to xenophobia, dominant cultural products are routinely involved in the production and normalisation of marginalised groups and individuals.

In this context, exhortations for schools to ‘get real’ must not be read as attempts to have schools accept without question the practices in/of that world. Nor can knowledge producing schools be involved in the unproblematic, uncritical adoption of practices that may well be legitimated in particular discursive environments within
that world. Indeed, the Knowledge Production which is central to the KPS agenda involves producing knowledge about precisely these kinds of issues. So while we would insist on the value of critiquing ‘pretend’ practices with CCTs we would not in any sense wish to do away with the positive potential associated with the imagination of new, possible futures. Indeed, the creation of alternative figurations of identity and alternative understandings of culture is in itself a knowledge production project of the highest order.

Second, critiquing the political operations of society must extend to critiques of the ways schools deal with social and cultural diversity. Schools have long been complicit in the production and reproduction of social disadvantage. Endless research studies combine to demonstrate that education continues to be experienced in vastly different ways by various individuals and groups, despite many years of educational reform focused on ‘at risk’ students. The clear implication here is that the practices and traditions of schooling—its curriculum, assessment, pedagogies and social/technical relations—are more likely to reproduce than to contest or subvert patterns of social inequity (Teese & Polesel, 2003).

Knowledge producing schools are in no sense immune to these dangers. Attention to ‘real’ technology does not in any sense translate automatically into attention to ‘real’ disadvantages. Just as there are many different ways of conceptualising the potential/value/role of CCTs in schoolings, so, too, are there many different mindsets associated with disadvantage. Each of these has various strengths and weaknesses but there is insufficient space in this paper to outline the characteristics of the dominant approaches to equity based educational reform—the equal opportunity, valuing difference and socialisation approaches for example: these are discussed in detail elsewhere (see for example, Rowan, Knobel, Bigum & Lankshear, 2002). Here we want to argue that the possibilities associated with KPS agendas are most likely to be achieved with diverse students if coupled with what has been described as a transformative framework for conceptualising equity based reforms (Rowan, 2001).

Following the traditions broadly associated with post-structuralism generally, and post-structural feminism more specifically, transformative approaches to educational reform are characterised by a commitment to a holistic analysis of educational environments (and the contexts within which these are situated) in order to identify the multiple ways in which meanings about student identity (and student success or failure) are constructed. Attention is drawn to the production of educational (and cultural) norms, and to the complex work associated with trying to denaturalise existing definitions of particular individuals and groups, while simultaneously trying to introduce, validate and celebrate alternative (and multiple) understandings of identity and subjectivity.

To counter the differential power of discourses about gender, or race or class that are negotiated by students on a day-to-day basis, transformative approaches to educational disadvantage emphasise not only skills in the analysis of cultural norms, but also the production and validation of multiple understandings of normality. In this framework, the argument is not that girls can be active OR passive; or that students can be smart OR sporty; or that all kids with parents from China will learn in the same
way. Rather emphasis is on identifying and celebrating multiple performances of gender, ethnicity, race, socio-economic status and so on and tying these performances to educational success. This, then, is the bottom line: enthusiastic responses to technology, genuine concern for ‘at risk’ students and commitments to engaging with the ‘real world’ will be of little value if the frameworks underpinning these beliefs are insufficiently theorised.

What we are trying to emphasise, then, is the fact that while KPS frameworks appear to have much to offer schools attempting to respond in meaningful ways to changed and changing environments, these schools have as much responsibility as any others to address head on persistently uneven educational outcomes, and to shape their activities in ways designed to improve the educational experiences for all learners. This means that in addition to being able to think critically about technology, and knowledge, and schools’ relationships with both, KPS teachers need also to possess sophisticated approaches to thinking about student diversity, and educational reform. Our contention is that combining a non-traditional approach to technology with a transformative approach to disadvantage offers the greatest possibility that students will experience an education that is simultaneously ‘relevant’, ‘rich’ and socially responsible.

**Implications for teacher education**

The initial analysis of KPS work suggests that students in these schools are motivated, engaged, ‘on-task’, and competent in the deployment of a range of operational, cultural and critical literacies. As these are still the early stages of the project, however, detailed conclusions about the ‘value’ of the approach cannot be made. Nevertheless, it is possible to project forward some implications for teacher education of the model itself, and of the on-going need to evaluate this and other ‘not-school’ approaches to technology.

First, to work productively in KPS-like projects, teacher education students need to be provided with critical and analytical skills that allow them to identify traditional relationships between schools and technologies and the extent to which these traditions have met the challenges of the real world. They must also - like students in KPS projects - have the opportunity to experiment with technologies in the pursuit of meaningful educational goals: not merely in the performance of routine tasks.

Second, teacher education students need access to frameworks for assessing the ‘outcomes’ of schooling that go beyond attention to traditional markers of success, and which highlight the ways in which various individuals or groups may be routinely positioned in a problematic relationship with schooling. This necessitates the involvement of teacher education students in research projects to make ‘sense’ of the outcomes from KPS projects.

Third, teacher educators are challenged to ensure that graduate teachers can analyse critically the likelihood that any educational endeavour will work not simply to ameliorate, or accommodate patterns of disadvantage, but rather to lay foundations that could conceivably result in the deconstruction of practices that produce and
reproduce the effects of disadvantage. And finally, it is vital that teacher education programs make use of, and refer consistently to, explanatory and analytical frameworks that exist outside the traditions of education. It is also important that people ‘outside’ schools are involved in the kinds of educational agendas that are developed in the 21st century. This necessitates an approach to teacher education that involves real and meaningful partnerships between teachers, academics, ‘experts’ from diverse professional areas, community members and students themselves.

The activities of knowledge producing schools are still in their early stages, and ongoing work to assess the ‘value’ of their activities, and their impact upon student difference is vital. But even in the early stages KPS projects appear able to bring together truly transformative understandings of technology and student difference in a way that promises much for the future of schools and teacher education. This is our greatest hope.

References


Dangerous orbits:
Satellite campuses and educational ideologies

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In recent years, two teacher education courses have been established at a site in Dubbo as an offshoot from two existing courses at Charles Sturt University in Bathurst in Australia. The satellite campus at Dubbo has never been given the status of an official campus and is known as the Dubbo Interactive Learning Centre (ILC). The Dubbo ILC was originally intended to be a learning centre linked by the latest interactive video technology to the larger parent campuses in Wagga Wagga and Bathurst. The learning centre was marketed as the ‘clever campus’, mainly referring to the clever use of ICT in the delivery of courses. However, the reality has panned out very differently for the two main faculties of Health and Education that currently engage in on-campus teaching in Dubbo. In this paper, I examine the history of the education faculty’s involvement with the Dubbo ILC in an attempt to examine the underlying educational philosophies espoused by the major stakeholders, both human and non-human in this context.

The concept of serving the tertiary educational needs of remote communities via interactive technologies has been a seductive idea for educational administrators in Australia. In the last decade, many satellite campuses have appeared as the capacity of information and computer technologies has increased to enable interactive video connection between satellite and parent campus. The enthusiasm of educational administrators for satellite university campuses has been surpassed by the local communities who eagerly bid for the lifeline that a tertiary institution represents. However, the educational ideology of the universities is often far different from the local communities’ perception of what a university should do. There are also other ideologies in orbit that seem to be on a collision course. Fortunately there are also ideologies that are on the same plane as well as intersecting orbits that generate new pathways for tertiary education. This paper describes the orbits that are in synch, the orbits that are in danger of collision and the intersecting orbits of educational ideologies that circle in the Dubbo ILC.

The Dubbo ILC was established by Charles Sturt University in 1997 in temporary premises in F Block at the local TAFE. After the roof blew off F Block in a mini-cyclone in 2000, the ILC moved to another temporary home at a local shopping mall. During this time, a one off capital grant had been secured from the federal government to a permanent campus in Dubbo. The local community in Dubbo were much excited by this and the anticipation was so great that the university allegedly purchased a pallet of bricks to be put on site as a sign of progress! The brand new ILC finally opened in July of 2001. The Health faculty had already been running courses since 1997 and the Education faculty since 1999. The two main faculties had clearly taken different pathways in the delivery of their courses until this date. The Faculty of Health had committed on-campus staff from day one to teach face to face courses at
the Dubbo campus. Their main argument in support of this move had been the need for practice-based courses, such as nursing, to have a strong demonstration and supervised practice component in the teaching of their subjects. Despite the fact that the education course had the same practical orientation, the education faculty delivered the course via a different mode. This included face to face lectures from part-time staff on Dubbo campus, recorded lectures from the parent campus and regular visits from staff at the Bathurst campus. The students did not enjoy the videotaped lectures and this mode of pedagogy was soon condemned as “death by video”. Although the videos were the focus of their dissatisfaction, essentially the students were protesting at the failure of the parent campus to consider the pedagogical implications of attempting to replicate an existing course in a completely new context. Student dissatisfaction and strong resistance from staff at Bathurst campus to the imposition of Dubbo teaching in their workloads forced the faculty of education to employ more Dubbo based staff in 2001. It was ironic that just as the new Interactive Video Technology came online with the opening of the new campus in 2000, the faculty began to move away from this mode of course delivery.

**Educational orbits in synch**

Despite the fact that the education faculty began to move away from a diverse model of course delivery in 2001, a few innovative lecturers from the Bathurst campus took up the challenge of delivering their subjects in modes that took advantage of the new technology Dubbo ILC campus. In effect, they adapted their pedagogy to the context created by the designers of the building. The context was rich with educational technology that actually worked! It was amazing to see experienced lecturers quickly pick up the skills required to run an interactive video workshop. Once the initial skill threshold was reached, then pedagogical innovation followed. The best examples quickly moved away from replicating a lecture-tutorial mode via the video technology. These subjects typically involved a mixture of interactive video workshops (not lectures!), school visits, online subject materials and forums. The best of these subjects demonstrated the beginnings of what is termed in the e-learning literature, ‘blended pedagogy’ (Darby, 2002). I see blended pedagogy as being a mixture of the best features of internal and distance education subjects. Students meet face to face when they have something interesting to discuss that they have prepared beforehand. This preparation is scaffolded by the provision of learning materials online such as readings, activities and quests. An online forum facilitates the communication between all members of the learning community. These lecturers began to adapt their educational practices to suit the context of the interactive learning campus. In other words, a synchronicity was happening in the orbits of the educational administrators and these lecturers.

**Orbits in danger of collision**

Among the many educational ideologies in orbit with this satellite campus, there are a few that have come close to catastrophic collision with the mother ship. I have termed these orbits, *technology as God* and the *bricks and mortar fixation*. 
Technology as God

The title of this orbit refers to the rampant technological determinism displayed by some of the original stakeholders from the faculties involved in course delivery at the Dubbo ILC. Technological determinism here refers to the uncritical acceptance that the advent of new educational technology would automatically lead to more efficient and superior educational delivery. It draws on the old narratives of science and technology that will lead the way to a better world for humankind (Henderson, 1998). The manifestation of technological determinism in pedagogy is simply bad teaching done online. Well thought out courses and subjects are still important, no matter the supposed power and status of the new technologies that help deliver them. I cringe whenever I hear a lecturer begin an IVT class (audible from my office as I type) begin a session by calling the class roll. If the lecturer then proceeds to give a lecture to a room full of passive students for the next hour my worst fears are confirmed. Bad teaching is bad teaching, no matter what the mode of delivery. Yet some stakeholders in the Dubbo ILC thought that this style of course delivery, branded as flexible learning, would be sufficient to attract students. The numbers of students enrolled in these courses over the last three years has portrayed a different story. Students have voted with their feet by deserting these courses in favour of other courses taught at the Dubbo ILC or other campuses. Unfortunately, this has been taken as a sign of a lack of interest in these courses at Dubbo rather than a failing of the course itself in some sections of the university. The failing to me has been the inability of some course providers to see beyond the lustre of the new technology to examine the requisite pedagogies demanded by the unique location.

Bricks and mortar fixation

In regional centres a university is a status symbol like a cathedral or town hall. This bricks and mortar fixation is understandable given the contraction of government and private services in regional centres, especially those away from the coast. The university in this context is almost a guarantee of the long term prosperity of a city and its surrounding regions. Real estate agents in Dubbo were quick to add the “close to university” descriptor to their advertisements. This belief in the symbolic power of the university presence is evidenced by the number of requests that CSU executives get for a “Dubbo in their town”. To complain about the bricks and mortar obsession seems almost an act of disloyalty on my part but there are limitations to what a regional university can provide in the way of services in this age of fiscal discipline. We cannot hope to recreate the Sydney University quadrangle, the Fisher Library (we have a few shelves called the resource centre) or the social milieu that it sustains. The provision of physical resources is only a minor part, however, of the bricks and mortar fixation. The real constraint is the model of course delivery that it implies. Bricks and mortar translates into on-campus mass lectures and tutorials. This perception is directly apposite to the idea of the Interactive Learning Centre promoted by the university. Innovations in course delivery first have to overcome this mindset if they are to have any chance of succeeding. In my first full time year of teaching at Dubbo (2003), I tried hard to innovate with the pedagogy in my subjects. I was dismayed by the response of one student who said they wanted to sit in a mass lecture like other real universities instead of sitting in what I thought were my engaging, interactive
workshops! The difficulty of establishing new practices is made even more difficult when it is coupled with the spectre of students learning challenging technologies, such as online databases, webpage design software and interactive video studios. The orbit of the bricks and mortar fixation needs to be avoided in the quest for innovation in the Dubbo ILC!

Orbits intersecting

What are more interesting to me than the collision of orbits are the new educational orbits that have been generated by the establishment of the Dubbo ILC. These orbits intersect with the other orbits, sometimes deflecting stable orbits from their destined path. These new orbits emanate from the relationship between the human and the non-human actants (after Latour, 1999) that make up the educational network that is the Dubbo ILC. First, I describe the unique architecture of the Dubbo ILC. Second, I endeavour to depict the socio-technical assemblage of the educational environment (after Bigum, 1997) that is created by the relationship of this architecture with other human and non-human actants in this network.

Architecture

Phase one of the Dubbo ILC involved the construction of a large round building with a massive internal communal space with rooms on the perimeter. A spiral walkway ascends the inside of the dome giving access to these rooms, which are used for offices, teaching or meeting depending on their respective size. The first building is designed to be the hub of a network of buildings that are to form the Dubbo campus of CSU in the future. Cool air emanates from the air circulating around the four large cooling towers in the main hall of the building. The cascading sound of the falling water creates a pleasant white noise throughout the building. The building is reverse veneer construction with corrugated iron used on the outside and brick and timber on the inside. The entire effect is very pleasing to the senses.

There is a body of literature in education that focuses on the idea that the architecture of school buildings is simultaneously a reflection of societies’ attitudes towards education and a significant determinant of the type of the educational experiences that occur within them (Lawn, 1999). Thus, industrial societies produced schools designed to instruct students in an orderly and controlled fashion. The type of teaching that occurred in these buildings was necessarily constricted by the limited amount of space for children to move around. In contrast, schools that are built today reflect more nurturing and emancipatory notions of education. New school buildings have space for group activities, wet areas for art work and are light and airy. A variety of ideologies can be inferred from the design of the Dubbo ILC. At first, one is reminded of Bentham’s panopticon (Jackson, 1998) because everything that happens in the main hall can be seen from most parts of the building. However, the idea of physical surveillance or implied surveillance (after Foucault’s reworking of the notion of panopticon) does not sit well with what actually happens in the building. The observers are the observed and the positions are interchangeable so there is no notion of hierarchical order.
The next idea that comes to mind, especially for someone working in education, is the notion of the spiral curriculum inspired by the spiral walkway. The spiral curriculum is Bruner’s idea (1960) that important ideas in education need to be taught in a spiral fashion, with the educator repeatedly returning to the topic with increasing levels of complexity. The spiral curriculum inspires the educator to think through what exactly are the big ideas of their discipline as well as to the consideration of the integration of content matter across disparate subjects. Integration is a worthy goal in tertiary education as courses can easily be fragmented conceptually as each subject coordinator teaches their own subject in isolation from any collegial consultation.

The predominant educational idea, as the name Interactive Learning Centre suggests, is one of interactivity. The building is not a private place. Academics cannot retreat to private offices away from the students. Students interact freely with lecturers in the main hall, carry conversations from floor to ceiling and there is an audible hum in the building when it is full. If talk is the new dynamic of knowledge generation then the ILC must be helping to fire new neurons in many minds. There is not the calm of the traditional university library or study hall. It is impossible not to share your work as your colleague can look over your shoulder to see your screen or overhear your learning conversation. This fostering of egalitarian teamwork among students is one of the great benefits of the interactivity enabled by the design of the ILC.

**Socio-technical assemblage**

Classrooms have been described as socio-technical assemblages in the lexicon of Actor-Network theory (ANT) (Bigum, 1997). In this socio-technical assemblage, teaching has been described as a form of heterogenous engineering (Bigum, 1997). Bigum (1997, p. 257) describes traditional teaching as an attempt “to form a stable actor-network in which all the agents behave as the teacher requires.” In the previous section, I examined the architecture of the building as being just one engineer creating an interactive learning environment. However, there is more than one ‘engineer’ in the Dubbo ILC. The notion of heterogeneity, however, goes beyond granting the architecture of the building the role of an active agent. All non-human entities, such as the computers, the wireless networks, the stark physical surroundings, the curriculum, as well as the students and lecturers are given the chance of being seen as ‘engineers’, or actants, using the ANT perspective. This merging of the social and technical is not easy when one is used to scrutinising one or the other in ethnography but I think gives a better account of the learning interactions at Dubbo ILC.

I like using the example of network connectivity to describe the relationship between the human and digital in the learning environment of the ILC. As a technophile, I am excited to know that anywhere in the building I can access the larger university network through the local wireless network. This excitement is less important than the pedagogical opportunities it creates. For example, instead of scribbling on white boards during brainstorming or plenary sessions, I scribe straight to a word document that is projected onto a large screen. I can then post the distillation of the class discussion onto the class forum where the students can access it at a later date. As a result, students spend less time writing notes and more time talking through their emergent ideas. In another class I was in a fortnight ago, students wanted to clarify a
question they had in regards to the K-6 science and technology syllabus. In a matter of moments, I had downloaded the document from the web and we were able to answer our question. This is not groundbreaking pedagogy by any means but it does demonstrate that the interactivity in the ILC is the product of human and non-human actants. Of course, the human actants need to possess the desire to work in a manner that enables the benefits of the non-human actants to be expressed. I describe this as the requirement to think digitally on the part of the lecturers.

Another non-human actant that helps to engineer pedagogy on campus is the provision of online support for internal subjects. In a context like Dubbo ILC where some students travel over 300km one way to attend classes, having access to quality materials online and subject forums is crucial to the quality of the students’ learning experiences. Students can access lectures notes and readings before their class so that they can spend their class time actively engaged in learning rather than being switched off in a large lecture theatre. I find teaching some of my classes here very rewarding as students come to workshops ready to refute, question and debate issues as well as to offer many suggestions relating to the quality or lack thereof of the materials! I plan my classes now to maximise student to student and student to teacher interaction. This is particularly pertinent when one is repeatedly reinforcing the importance of interaction in children's learning. So the combination of digital readiness on the part of the human actor in combination with the preparation afforded by the digital network itself provides the conditions for a rewarding learning community. This is definitely an intersecting orbit that moves my own educational orbit out of its regular trajectory.

**Conclusion**

There are many unforeseen educational consequences when satellite university campuses are established in rural centres. At times, these consequences can seem like the collision of orbiting planets to the casual observer. Fortunately, for every tension, there is at least one unexpected outcome. Orbits in synch’ occur when there is a natural congruence between the different stakeholders whilst intersecting orbits flash through the plane of a regular trajectory to send us off on more generative orbits.

I have argued here that the best way to understand the potentially dangerous orbit of satellite campus is to conduct an ethnography that examines both the human and non-human actants involved. At the Dubbo ILC, interactivity is substantially enhanced by the relationship that exists between the wireless digital and human networks. In the language of the internet, the Dubbo ILC at its best is open code free to all: egalitarian, accessible, democratic and intellectually invigorating. I hope that this particular educational ideology remains in orbit for a long time.

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Making spaces for Indigenous teachers in ‘the impenetrable whiteness of schooling’

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Key issues informing a new four-year study of the career pathways of Indigenous teachers in Australian schools, funded by the ARC Discovery grant scheme (2004-2007) are raised. Extracts from a pilot interview with an Indigenous teacher, and data from official reports including the NSW Department of Education and Training’s 2002 report on Equal Employment Opportunity are used to argue that teacher education must make space to seriously consider the issues of Indigenous education and Indigenous teachers. Current teacher education practices provide little sustained support and preparation for Indigenous teachers entering the profession, and do not prepare them adequately for what we see as the “impenetrable whiteness of schooling”.

Prologue

The young man walked quickly towards the supermarket. It was hot and steamy, and threatening rain. He needed milk, tomatoes, a steak and frozen chips. He was tired; it had been a long day with Year 2, a new class, a new school. He needed to get going on his programmes... his supervising teacher would want to see them. “Hey, Mr Symons, Mr Symons! It’s my teacher, Dad! It’s Mr Symons! It’s Mr —” He turned around to greet the child, recognizing the voice, pleasure infusing his whole body. Matt?! Matthew something? As his lips formed a welcome smile he suddenly froze. The child’s excited voice had abruptly stopped. There was a sharp intake of breath. And then tears, confused and frightened. He saw them falling as he watched, helpless, ashamed and impotent, while the child was jerked by the arm and pulled away, into the crowd at the front of the store. “Don’t you speak to that man! Don’t you ever speak to a black man!” The words were not meant for him, but he can still feel their sting. They cut, shamed and angered him, cutting through his confidence and pleasure, and pulling the ground out from under his feet. He turned away quickly, and felt his fingers form a fist. What’s the use, he thought, what was all that hard work for?

Mr Symons graduated as a teacher in 1997, a few months after this final school practicum. He never worked in a school. He took a job in student services at a city university interstate, and works there still.

In a paper that was communicated around the world to internet lists from a North American Native News Digest, Jensen (1999) named what he called the “dirty secret that we white people carry around with us every day”. As he phrased it, “in a world of white privilege, some of what we have is unearned.” He linked this to what he sees as
the “ultimate white privilege”: acknowledging that you have unearned privilege but being able to ignore what it means.

Three of the researchers connected to this paper, Cathryn, Ninetta and Jo-Anne, are white, and privileged. As women, we are perhaps not so quite so ‘ultimately’ privileged as the masculine ideal currently constructed in terms of teacher shortage and recruitment needs. We have not been able to ignore, in our own lives, the effects of white male privilege in education that has positioned us as less able, less strong, less intelligent, less worthy, less rational. As teachers and teacher educators, however, we acknowledge the unearned privilege of our whiteness in our own educational histories, and are becoming increasing unable to ignore the meaning of white privilege in the discursive construction of our selves, our students and our collective working lives in Australian education today. Our research partners, Lee, Laurie and Barbara, are Indigenous teachers, who have lived their professional lives quite differently from us. They have not been able to ignore the whiteness of Australian schools, teachers and curriculum. And like many of their Indigenous teaching colleagues, they have entered (and in two cases left) the profession “accidentally” as part of successful careers that nonetheless have been constrained by what we are calling the ‘impenetrability’ of the dominant white culture of schooling, and the lack of potential for genuine reform.

In this paper I raise and explore key issues that inform a new four-year study of the career pathways of Indigenous teachers in Australian schools, funded by the ARC Discovery grant scheme (2004-2007). I draw on extracts from a pilot interview with an Indigenous teacher who has changed career path in recent years, and data from official reports including the NSW Department of Education and Training’s 2002 report on Equal Employment Opportunity (NSWDET 2003). I speak for the project team here, to argue that teacher education at the present time must make space to seriously consider the issues of Indigenous education and Indigenous teachers. At the moment our teacher education practices provide little sustained support and preparation for Indigenous teachers entering the profession, and do not prepare them adequately for what we are calling the “impenetrable whiteness” (McConaghy 2000, p. 218; Morrison 1992, p. 33) of schooling.

I begin with a contextualising account, taken from our research application (Santoro, Reid & McConaghy, 2003), of the object of our study – Indigenous teachers for Australian schools. I then make use of the EEO data noted above (NSWDET, 2003) to focus first of all on the whiteness of school staff rooms – or more precisely, the lack of Indigenous teachers inhabiting those staff rooms as members of the teaching profession. I then briefly review the issues, tensions and problems that we found have arisen in training Indigenous teachers. Our research focus is on NSW and Victoria (interestingly, the mainland states with, respectively, the highest and lowest numbers of Indigenous citizens percentage). I draw, here, on extracts from the interview story told by ‘Debbie’, an Indigenous woman who graduated as a teacher in the mid 1990s. This account is added to the small body of evidence available more generally about what happens to Indigenous teachers once they are trained and ready to take their places in schools. This paper aims to contextualise our project’s initial attempts at
mapping out the material and discursive environment in which Indigenous teachers work.

We are aiming ultimately to make explicit the discourses of racialisation, citizenship, social justice, culture and nation, which, we claim, exclude and estrange some members of the teaching profession, while taking the assumption of whiteness and white privilege as the norm. Our task is to build on accounts of Indigenous teachers’ strategies for dealing with this discursive environment, so that we might be able to learn from them. Our hope is that the teacher education strategies we suggest will help make the culture of Australian schooling more permeable for those people not born into the privilege of whiteness. In speaking for my colleagues here, I want to both acknowledge their work and contribution to the conceptual framing of the project, and the drafting of this initial public account of our research.

**Background**

The research team brings a range of personal and professional experience to this study. All work or have worked as teachers and teacher educators, and when Jo and Ninetta first began teaching Indigenous student teachers in a large Victorian university in the 1980s, we had difficulty understanding why so many of our ex-students would not actually begin working as teachers. They would often finish their teacher education but then quickly take up other jobs in their communities even though they continued to worry about the education of Indigenous children in the schooling system, and continued to do everything they could at home to support ‘their kids’ at school. One of us felt particularly perplexed and disappointed when an outstanding Koorie graduate chose to remain as an Aboriginal Education Assistant (AEA) in her secondary school rather than apply to join the teaching staff. She had so much to offer students, so why did she not choose to be named and recognised as the English teacher she already was? Cathryn’s experience as a teacher educator in the Northern Territory meant that many of her Indigenous graduates did commence teaching in their remote communities, but not all remained as teachers. Like Debbie, our three Indigenous co-researchers, Lee, Laurie and Barbara, have all experienced the ‘impenetrable whiteness of schooling’ as Indigenous ‘Others’ to the dominant notion of ‘Teacher’ in Australian education. Like her, they have uncomfortable and confronting stories to tell about their educational and professional histories. And like hers, their stories will ultimately form part of the corpus of data available for our study.

These accounts need our attention. We have listened too many times to the stories that Indigenous student teachers like ‘Mr Symons’ tell, when they return from schools, to continue to keep such stories quiet. We have reassured our new teachers too often that the experiences they themselves had as Indigenous students in school were produced out of a history of ignorance and intolerance – and that their experiences as teachers will be different. More importantly, we tell them, from our well-intentioned whiteness, that their presence in schools will make a difference for their kids – and we do have models and success stories to share. And when the students come back from school experience, the stories they tell are usually quite typical of those told by all student teachers – up to a point. They love the teaching and the interaction with kids.
They put up with the long nights of preparation. They are going back to see the kids next week at the class concert. They secretly “even quite enjoyed” the tedium of yard duty, as it gave them a chance to interact quite differently with the children. But unlike the non-Indigenous students with whom we work, these people often tell us that they have kept well away from the staff room.

It does not take us long to understand some of the reasons why. While school classrooms and playgrounds may reflect the range of cultural difference and plurality of Australian society, staff rooms do not. This is not pleasant news, particularly for those of us who enjoy the camaraderie and spirit of our school or department staff room as respite from the classroom. But unpleasant or not, this is one of the ‘dirty secrets’ that we as teachers have to face if we are to interrogate the meaning of our whiteness, and its effects on our colleagues and students who do not share its unmarked privileges.

We claim that one of the fundamental reasons for this is that the discursive environment of Australian schools remains overwhelmingly ‘white’ despite decades of multicultural policies. Fundamental to this observation is an argument that whiteness so often “constitutes hierarchy, exclusion and deprivation” (Fine 1997 p.viii). As another Indigenous ex-teacher, Linda Burney reminds us of the need to realise how the White Australia Policy was built into the foundations of the educational institutions in which almost all of Australia’s present generations of educational leaders were schooled. Australia was still White Australia until 1972. Six years ago now, she wrote that this means that “practically everyone now in a position of power or influence or authority that grew up in Australia also grew up in White Australia and grew up with all the attitudes and values that White Australian stood for. That includes most teachers” (Burney, 1998, pp. 57-58). Similarly, the teaching practices of an overwhelmingly monocultural and monolingual teaching profession (Rizvi, 1992; Santoro, Reid & Kamler, 2001) privilege the dominant white majority in ways that are simply taken for granted. Despite several decades of policy objectives to pluralise Australian education (McConaghy, 2000), being white in Australia is still constructed in our curriculum and cultural practices as normal and natural (Burney, 1996, McConaghy, 2000). Thus, our research seeks to consider the impact of these resilient discursive, structural and cultural environments in schooling on the lived experiences of Indigenous teachers.

Indigenous teachers for Australian schools

At the present time, NSW government is conducting another Review of Aboriginal Education, the terms of reference for which are: “To examine current approaches in the delivery of Aboriginal education addressing issues including: attendance, retention rates, and academic performance” (NSWDET, 2003). This highlights once again the continuing failure of the government school system to improve the life chances of Indigenous Australians (RCADIC, 1991). The implication of teacher education in this failure was stressed in a number of submissions to both the 2000 Ramsey Review of Teacher Education in NSW, and the Report of the Independent Inquiry into Public Education in New South Wales (Vinson, 2002). They expressed dissatisfaction with the preparation of teachers for rural and disadvantaged schools and urged for the
inclusion of compulsory study of Indigenous culture in all preparation for the teaching profession. The State Government has announced (March, 2004) that such study will indeed be mandated for all teachers graduating after 2005. As researchers we welcome, and take up, this call, advocating for curriculum innovation that will highlight how whiteness is produced and sustained as the dominant norm of Australian schooling. We want to demonstrate how processes of Othering in educational discourse and practice impact on and affect the opportunity of Indigenous students and teachers to succeed in our schools. We stress the importance of ensuring that our teacher education practices can impact on the ability of non-Indigenous teachers and students to understand and acknowledge whiteness and its associated privilege.

As we argued in our application (Santoro, Reid & McConaghy, 2003), Indigenous children remain the most disadvantaged students despite numerous policy initiatives. An urgent issue for Australian education, recognised by governments and researchers alike, is how school systems can provide better quality schooling for Indigenous students. One significant strategy used internationally, such as in Canada and New Zealand, has been to attract more Indigenous teachers to the teaching profession. Yet this has been extraordinarily unsuccessful as a strategy in Australia. Indeed, the Ramsey Review (2000, p. 219) of teacher education in New South Wales calls for the development of “pathways programs into teaching for talented and suitable Indigenous people”. As Ramsey notes:

The issue of increasing the number of indigenous teachers is long-standing. The figures [for Aboriginal and Torres Strait Islander (ATSI) people newly employed as teachers within the Department of Education and Training since 1994] are well below the number needed for proper representation of Aboriginal teachers within the profession, given that the [ATSI] population in government schools is approximately 3.7 per cent. […] Issues of critical importance in Aboriginal education will not be addressed appropriately until this level of entry into teaching is increased substantially in both government and non-government schools (Ramsey, 2000, p. 47).

The numbers of Indigenous people currently working in NSW schools is extremely low, and the actual number of Indigenous people employed as teachers is not publicly disclosed by the government, even within their EEO report. Ramsey (2000, p. 47) reports NSWDET figures of only 24 new Indigenous teaching appointments in 2000. In 2002, there were 792 Aboriginal people and Torres Strait Islanders employed in NSW schools, district offices, and state office, as ‘teaching and non-teaching staff’. This figure represents 1.1% of the total number of people employed by the Department, and far less than this percentage of the number of Indigenous Australians in NSW. This is a very small figure, especially given several decades of support for university and college programs targeting the preparation of Indigenous teachers. Clearly, the issues of supporting and retaining Indigenous teachers in Australia are more complex than can be solved through resourcing or policy support.

What is of greater concern though is that the number of Indigenous people recruited as new staff fell from 1.1% in 2000 to only 0.7% in 2002 (NSWDET, 2003, p. 32). These figures concur with preliminary data we have obtained from NSW universities that the numbers of incoming Indigenous students, and the retention rates of Indigenous students in teacher education programs is also very low. Additionally, a
large number of Indigenous teachers leave teaching after a period of time. Although no figures for the School sector are provided, the separation rates of Indigenous teachers from the NSW TAFE sector in 2002, are suggestive. They indicate, for instance, that 2.9% of Indigenous employees left the sector in 2000, and 2001, and that this figure grew to 4.5% in 2002 (NSWDET, 2003 p.39). Some resignations are due to promotions to administrative and policy positions, and it seems that Indigenous teachers may be particularly susceptible to ‘poaching’ from the fields of Indigenous Health and legal services, though our evidence for this is as yet only anecdotal. What seems clear, though, is that many are as a result of difficult working contexts.

As Debbie explained, with reference to many of her Indigenous colleagues:

…we have ‘accidentally’ moved out of teaching. It hasn’t been a career move, that we’re trying to advance ourselves. The opportunity has come up, and somebody has said that: “You should really be doing this”, or, “We want you to apply for this” or whatever.

Researching Indigenous teacher education

There have been several previous national initiatives to prepare Indigenous teachers. The first was in 1972, under the rubric of ‘Indigenous teachers for Indigenous kids’. In 1981 Paul Hughes made an optimistic call for ‘1000 Indigenous teachers for Australian schools’ by the year 1990 (Hughes & Wilmot, 1982). This followed a 1980 NAEC Report indicating that there were only 72 qualified Indigenous teachers in Australian schools. To achieve a ratio of Indigenous teachers to students comparable to that for the non-Indigenous population, a target of 5000 Indigenous teachers by 1990 was required. While no accurate national figures are currently available, it would appear from the NSW data presented above that numbers are still nowhere close to this figure, and that trained Indigenous teachers are continuously leaving the schooling sector. Our premise is that Australian teacher education institutions and schools, structurally and culturally, are a considerable challenge to Indigenous Australians.

As we argued in our application (Santoro, Reid & McConaghy, 2003), there is considerable policy support for the need for further research, and our project builds on and is contextualised by documents such as The National Strategy for the Education of Aboriginal and Torres Strait Islander Peoples 1996-2002. This lists as a key priority the need to increase numbers of Indigenous peoples employed in education and training. The Collins Report into Indigenous education in the Northern Territory (1999) recommended that the NT Department of Education develop and implement “a strategy to vigorously pursue an increase in the number of Indigenous teachers and Indigenous people involved with schools in an official and paid capacity”. This is seen as “the best long-term solution for addressing high teacher turnover and to support a major recommendation of this review to achieve the active involvement of Indigenous people in the control and delivery of their own educational services” (Collins, 1999, p. 9). The NSWDET has a range of strategies in place to support Indigenous teachers in its service, but as reported in the EEO Report (NSWDET, 2003 p. 3), the numbers of people actually involved in these is very small. The most successful strategy reported here appears to be the Aboriginal Mentor Program, in which 37 Aboriginal staff participated during the 2002. But only four women took
part in the 2002 Management Development Program for Aboriginal People, aimed “to improve the representation of Aboriginal people in middle management and senior management positions in the NSW public sector” (NSWDET, 2003, p. 3).

In order to make a useful contribution to the training and support of Indigenous teachers we have planned to research the career pathways of Indigenous teachers in four key areas. First, we see that there is a need for detailed first hand accounts of the experience of Indigenous teachers. To this end we will interview men and women who have studied and entered the teaching profession – and who either have remained in classrooms, left teaching to take on administrative, teacher education or other roles in schools or systems, or who have left the field of education entirely. The interview with Debbie, which I draw on in this paper, is part of the corpus of data collected at this stage of the project. It is important to consider the considerable insights and experiences of Indigenous teachers in their efforts to live and work within the racial hierarchies existing in Australian schools if we are to develop strategies to disrupt them. Second, we believe that if Indigenous teachers entering the profession are to be supported and nurtured, we need to have a clearer sense of their histories, location, training, expectations and ambitions. To achieve this goal we will be seeking to determine the numbers of Indigenous student teachers currently enrolled in teacher education programs in all Universities and Colleges located in the two focus states, Victoria and NSW. This information will allow us to track the progress towards and after graduation of these students over the four-year period of the study. Third, recognising that Indigenous teachers alone cannot dismantle racist structures and logics, we argue for the development of action research type strategies with schools to increase their capacities to interrogate their own practices and the racial hierarchies institutionalised within them. Our aim here is to find ways of improving in-school support for Indigenous teachers by following four teacher education graduates through their first three years after graduation. These longitudinal case studies will focus on volunteers who will be recruited from focus groups of current teacher education students in each state.

Central to each of the research strategies outlined above is a reconceptualisation of the issues confronting Indigenous teachers in their initial training and working lives. We argue that such a reconceptualisation needs to look beyond the frames of curriculum relevance, cultural difference and simplistic arguments about access and participation. The problems of Indigenous student teacher retention, so often echoed in the working lives of graduate Indigenous teachers emerge as more complex than simple exclusions or inclusions. They are more complex than a recognition or non-recognition of ‘their difference’. Instead, we explore the possibilities for reframing the issues in terms of the resilience of a particular ‘racial imaginary’ in Australian social life, one that emerged early in the nation’s history and which has persisted in various guises within all major social institutions, despite many decades of liberal policy reforms.

**Indigenous teachers in Australian Schools**

Because the department was placing Aboriginal graduates into schools, you had priority employment and basically, they said to me, “What school do you want to go to?” and they gave me to that school. And I picked a school that had a significant enrolment of Aboriginal children. When I got to the school, the principal was at a Principals’
Conference for three days. The [Acting Principal] said, “I don’t want you at this school and the only reason you’re here, is because the principal wants you here.” That was my introduction to the school. For three days, I just wandered the school. She didn’t introduce me to anyone, she didn’t allocate me any duties or tasks or anything. And she really did resent me being at the school, and it was really very difficult.

Although it has been recognised for some time that racism is a key factor in the low retention of Indigenous teachers, the exact nature of the various forms of racism that exists in schools and teacher education institutions has not been fully explored. Nor has there been a systematic attempt to identify the processes for dismantling racist cultures (Arber, 1997) in Australian educational institutions. What is required is a reconceptualisation of ‘the problem’ away from a focus on the capacities (or incapacities as is often the case) of Indigenous teachers and, instead, to consider the various forms of racism in Australian education. In this instance we argue for racism in schools to be theorised as an aspect of the racial imaginary of Australian society.

Our analysis of whiteness resists the type of identity politics that have resulted in what McConaghy (2000) calls often simplistic culturalist analyses of Indigenous Australian education in which whiteness and blackness, or Indigeneity, are presented as unproblematic concepts. In short, we argue that a racial imaginary that portrays the ordinariness or naturalness of whiteness informs the everyday practices and relations of social power of Australian schooling. How this takes place, despite the rhetoric of multiculturalism and tolerance of difference, is a crucial focus for educational research (Hickling-Hudson, 2003). We would suggest that the processes by which whiteness is reproduced as a resilient form of national imaginary have to do with the structural relationships between the formation of subjectivities, curriculum knowledges, institutional arrangements, discourses and relations of social power. Debbie, for instance, recounts her inability to accept her own expertise as a teacher when she was asked to apply for a job in a university:

Well it was interesting for me. I was at [a large regional] public school and the Principal had contacted me one day when I’d come into the staffroom and said, “Deb, the Head of School at the School of Education at [large teaching university] has contacted me and wants you to phone them.” And I said, “Oh yes, okay.” And I thought he was just mucking around, so I didn’t phone. And a couple of days later, he said to me, “Did you phone the university?” And I said, “No, I thought you were only mucking around!” And he said “No!” So they phoned again, and they asked me to go out, and they talked to me and said they had a job […] They asked me to apply, which I did, won the position, and I was too frightened to take it. That happened twice. […] I didn’t take it. It was offered and I didn’t take it. […] I thought, “Working in a university? Intelligent people work there. …Who was I?” Because I felt as if I’d bluffed my way through teaching.

This story echoes an account by Kevin Rogers, a member of the Wandarung people, and a member of the NAEC, who in 1994 was a student teacher at Batchelor College:

My community can see the Yolgnu [Aboriginal language for Aboriginal] teacher as an “in between” man, for he must be able to have the knowledge and respect to assist in teaching culture and also be able to understand and work in the European ways in which he has been trained. As an “in-between” man, the community knows that the Aboriginal teacher must teach the European teacher more about Aboriginal culture and ways. The European teacher must also help the Aboriginal teacher to be a real teacher. (He must not be seen as half a teacher so the community wants him to be taught basic skills on site).
Some would suggest that having these skills is more important than having a formal training (Rogers, 1994, pp. 98-99).

It is clear in considering these two passages how the notion of the Indigenous teacher as ‘half a teacher’, and this representation of the inadequacy and lack of Indigenous teachers, is produced in the text and in present-day discourses of education as an effect or complement to their Indigeneity. The Indigenous teacher is contrasted in Rogers’ words with the ‘real teacher’ — who does not need to be described or marked in racial terms. The ‘norm’ is white, and the ‘real’ teacher is understood as white. We can only make sense of Rogers’ words if this is the case. The idea of an ‘in between’ teacher though, is in fact not a lesser position but a superior one. Such a teacher, who not only has “the knowledge and respect to assist in teaching [Yolgnu] culture [but is] also be able to understand and work in the European ways”, is a better option than the ‘real’ teacher in fact. Such a teacher, encouraged and prepared to teach not just ‘Indigenous kids’, but in all Australian schools, is a much better option for a society seeking reconciliation between Indigenous and postcolonial Australians. It has been well documented that Indigenous Australians experience racism in Australian education as teachers, parents and as students. However, it is not just as a result of racist events that Indigenous Australians are alienated from Australian schools. Racism and various forms of objectification, erasure and discrimination often work in more subtle ways.

Rather than ‘researching Indigeneity’ as a key to understanding the under representation of Indigenous teachers in Australian schools, as has been a common approach to Indigenous education research for many decades, our study argues for detailed analyses of the complex ways in which racial hierarchies are formed in schools, from the staff room to the play ground. One of the ways to investigate how ‘whiteness’ is produced and sustained through education policy, curriculum and teaching practices in Australian schools is to explore the experiences of Indigenous teachers and Indigenous student teachers in Australian schools. In particular, it is necessary to explore how practices of Othering in educational discourses impact on the professional lives of Indigenous teachers and student teachers. Hickling-Uudson and Ahlquist (2003, p. 73) state that teachers working in schools with large proportions of Indigenous students: “said that their universities had given them little or no preparation to teach anything other than the Anglocentric curriculum that they had received in their own teaching and learning programs”. It is imperative that we do make space to review and consider our curriculum not only for mainstream student teachers needing preparation to teach indigenous children, but for Indigenous student teachers who may well be finding our own educational practices ‘impermeably white’.

Footnotes
2. Laurie Crawford’s account of his experiences as one of the first male Aboriginal teachers in NSW can be found in the CSU publication Starting Out - Stories of Beginning Teaching, 2004.
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The mediation of teacher education: Part one

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The way in which teachers are educated is under pressure from a number of sources such as: governmental requirements for teachers in schools, the social perception of ‘education workers for children’, the competitive pitches of academics theorising about how teachers should learn their trade, and the economic needs of business development. This paper is the first part of a four stage process based at the University of Tasmania, which seeks to explore these forces, and to undertake research using a group of in-service BEd student teachers who have attended a summer school at the university. I shall use the following examination of argumentation to map the terrain that will be probed in the research and to provide a path to understanding as to how mediation of teacher education happens in contemporary Australian society.

I must firstly clarify two main points. This paper is not a reductive move in teacher education designed to encompass all activity on BEd in-service programs within literary practise. Nor does it seek to integrate the ‘multi-modal’ expansionism of multi-literacy discourse (Cope & Kalantzis, 2000) into a generalised in-service paradigm. It will use the work of, for example, James Paul Gee, in order to prioritise the meaning making of in-service trainee teachers and to make connections between this meaning making and the context in which they are being educated:

If meaning is not rooted in the signs and texts themselves, or what is in people’s heads: then education cannot be seen as the overt teaching of facts or skills. Education is always and everywhere the initiation of students as apprentices in various historically situated social practises so that they become insiders (Gee, 1992, p. 290).

Figure 1. The intersection of the three areas of: meaning making, teacher education and multi literacy.

This figure provides an overall scheme for the paper as a whole.
It is interesting and indeed worthwhile in terms of being a good thought experiment to apply a sense of congruence between the discourse of trainee teacher educators and the emergent field of multi-literacy. These nodes of inquiry would seem to sit at opposite ends of a tenuous and extended connective structure. Teacher discourse is saturated with institutional power concerns (Connelly & Clandinin, 1999; Mitchell & Weber, 1999) that require the learning of a technical language and programming and strategic techniques to integrate social policy with particular teaching practises. On the other hand, multi-literacy has, at various points on its trajectory, definition and dissemination, become riddled with the discourse of possibility that underpins western democracy (Cope & Kalantzis, 2000), and, in particular, the communicative and literate possibilities that new digital technologies are extending to global populations. This paper attempts an uneasy marriage of the two areas so that the meaning making of the trainee teachers may emerge through congruence, and from the latest definitions of how that meaning making impinges upon literate understanding in contemporary society.

The congruence that may be applied between teacher education and multi-literacy is through the act of meaning making. It could be said that teachers attending a BEd in-service summer school are part of a designed and specific cohort that create meaning through acts of social engagement and in multiple social contexts (Barton & Hamilton, 1998; Gee, 1996). This is a literate community that not only absorbs meaning from textual practise that is undertaken during the teacher training sessions, but also creates meaning according to intentional rules. It may be stated that embedded within these intentional rules are cognitive skills for manipulating knowledge that are mobilised and coalesced through the action of social capital (Falk & Kilpatrick, 2000).

Social capital may be defined as the norms (values), networks and trust (Coleman, 1988; Putnam, 1993) that power the economic and social wheels of society. It draws upon knowledge and identity as an agent of change that will, in the case of teacher educators, help to unlock notions of the self as apprentice teachers. Research has shown that learning communities are given confidence through the introduction and production of social capital (Kilpatrick, Bell & Falk, 1999), and for BEd in-service students the use of social capital as a cohesive bond would make a positive difference to their meaning making in terms of giving them a sense of connectedness and direction. Yet this positive difference assumes a rational basis for agreement, which may or may not be forthcoming in the context of the summer school activities. If the picture of meaning making for teacher educators in the contemporary context stopped at this point, social capital would be the ‘magic’ solution to our educational problems in democratic society. Yet this is not the case. As the New London Group commentators have noted (Cope & Kalantzis, 2000), meaning making in the contemporary educational situation is complicated by the number of communicative options available to students and teachers alike. To take a simple example, the student teachers may read an article in the newspapers about violence in a multicultural classroom that is contradicted by an internet site and emails in a discussion forum that is given another twist by stereotyped and false representations of teachers in Hollywood films.
In other words, the meaning that students take and make in the course of their training does not come from a singular perspective. If anything defines the way in which students learn about teaching in contemporary society, it is that there is no one authoritarian source that defines the way in which society understands the process of teaching and learning. Social capital itself is a mediated process that may create division as well as cohesion as every relationship necessarily defines a separation as well as a bond. The opposing perspective to the one that states that the relationships inherent within social capital are mutually beneficial is the one that states that these relationships create inequality between those who are in possession of contacts within the social capital web and those who are outside of its sphere of influence. Nowhere is the perspective of disempowerment and alienation felt more strongly than in the area of educational technology. From the perspective of those ‘enabled’ by the introduction of digital technology into the learning process, for example, Slouka (1995), one may plainly note the differences in opinion about contemporary society and modes of meaning making that, for example, the creation of virtual worlds of learning have produced. These perspectives underline the fact that technology is enabling great changes in the way in which we communicate and think. Within this framework, the BEd teacher trainees are an inter-related sub-set of global literate functioning (the ‘hyper-literate’). This view permeated much of the educational thought of the 1990s, and is exemplified, For example, by the writing of Carmen Luke (1996) or Howard Rheingold (1994), who have contributed to the creation of an atmosphere and arena for the existence of what has been defined as the “rhetoric of the technological sublime” (Jones, 1995, p. 35). This arena has made inter disciplinary links between academic subjects at will, and has theorised the union and development of a global village connected through communication technology and delivering the promises of western democracy such as universal education.

However, this perspective has since dimmed in eminence in some quarters, as, for example, the promise of universal education would seem to need reassertion, or at least restatement as to where the idea comes from. Commentators such as Bertram C Bruce (1998) have shied away from the seduction of the cybernetic panorama dominating educational life, and have listed this perspective as just one of several options that relate to the use of technology in teaching and learning. To add cohesion to his meaning making about learning, Bruce has mined the history of educational thought and opted for the ideas of John Dewey (1884). Dewey was led to a constructivist theory of meaning; in his view knowing was a process in which the individual learned through reflection on ordinary experience and through communication with others (Bruce, 1998). It is straightforward to translate this foundational, progressive and rational process to the BEd in-service cohort, who should be reflecting and communicating as an integral part of their summer school experience. Bruce expresses the extension and application of this process as ‘socio-technical practise’ of literacy that could be said to construct meaning by using all the techniques that available technology affords and that is consistent with the body of work on the social construction of technological systems (Bijker, Hughes & Pinch, 1987; Bijker & Law, 1992). This type of constructivist perspective on literacy also confirms Alan Luke’s (1996) opinion that “literacy training is not a matter of who has the ‘right’ or ‘truthful’ theory of mind, language, morality or pedagogy. It is a matter
of how various theories and practises shape what people do with the technology of writing.” (p. 309).

This is precisely the point of the research into meaning making of trainee teachers in the BEd in-service context. These students will positively integrate socio-technical practises into their meaning making as trainee teachers, as they are and have been practitioners in socio-technical techniques as part of the work-force. This factor has influenced my choice of this particular cohort, as the question still remains as to what they will do with this practise in terms of their writing and meaning making, and in particular the connections that they will make between their meaning making as trainee teachers and the mediation of teacher training as they perceive it. Certainly one of the strongest factors in play in the decision making of the student teachers is the ‘digital divide’, and the way in which they may articulate its effect upon their literacy learning. The fundamental question informing this project may therefore be framed as: whether the trainee teachers may integrate multi-literacy meaning making into their understanding of an enhanced teacher functioning due to the digital technology available and the use of social capital and socio-technical techniques; or whether the amalgam of social, moral, economic and political forces readily acting upon individual student teachers due to the digital explosion of communicative possibilities giving free access to information, will overwhelm their meaning making and their understanding of mediated teacher training.

It seems to me that the first possibility is well mapped out and clear in terms of process and design. We are perhaps assuming a definition of multi-literacy at this point in the exploration; this will be dealt with later in the paper. First, we must address the second possibility, to mark out the way in which we can understand how a loss of meaning, identity and control over meaning making may be understood in terms of teacher education. For this possibility to become clearer, we must turn to critical social theory; and in particular the work of Michel Foucault.

The book that defines the field in the area of the controlled and the oppressed is the seminal *Discipline & Punishment*. One might say that this work has advanced a sense of the existence of literacy for the jailed and the subjugated; it has articulated the way in which society is divided and the forces at work in this division. Firstly, a normative projection of the individual must be applied for subjugation to take place; this Foucault has termed as ‘knowable man’. The knowable man is a synthesis of normative qualities, and in the context of digitally mediated society, knowable man is a simulation of normality that can be utilised to amplify the corporeal control of society by exercising power in the most efficient manner possible (Nichols, 2002). The criteria of normality are the self-reflective discourses of abstraction that violate the reality of the individual due to their deceptive nature; as Bogard (1996) has put it: “they feign what they do not possess” (p. 4), and in so doing they obscure the boundaries between reality and myth. This obfuscation is prescient in the hands of the modern state armed with digital technology, as the administrative structures far from analysing the human data of normality in a neutral fashion, are able to construct simulations of efficient and expedient outcomes (Bogard, 1996, p. 20).
Foucault has qualified this movement of normative power in the modern state system through his description of the disciplinary tactics, and the three criteria of their action: 1) they obtain the exercise of power at the lowest possible cost. 2) They maximise the reach and intensity of social power. 3) They increase both the utility and docility of all elements of the system (Foucault, 1995, p. 218). Such criteria of the disciplines attached to the normalisation of society in the modern state were congealed in the physical examination, and as Foucault has termed it, the ‘normalising observation’ (Foucault, 1995, p. 217). This technique has found a home in the construction of surveillance processes, the social sciences and the panopticon of the utilitarian prison system. In terms of education, normalising observation is a common technique for classroom control, and it is played out through teacher training in terms of peer and social pressure to fit in with a certain socially acceptable, professional teacher profile (the knowable educator). Foucault has more recently explored this notion in terms of the power/knowledge conjunction, and in particular, how the ‘technologies of the self’ are controlled through institutional discourses of self discipline and of action, practise and identity (Foucault, 1980). Before we explore this context, it is perhaps worth noting Maurice Blanchot’s comment on the prison system and the way in which it works in contemporary society:

The penal system, which goes from the secrecy of torture and the spectacle of executions to the refined use of ‘model-prisons’ in which some may acquire advanced university degrees, while others resort to a contented life of tranquilizers, brings us back to the ambiguous demands and perverse constraints of a progressivism that is, however, unavoidable and even beneficent (Blanchot, 1987, p. 83).

In a sense it is the ambiguity that is being explored through this paper. On one hand, digital technology gives central powers such as the modern state system a greater ability to control the power/knowledge constellation, and the further possibility for intrusive inquiry and disclosure (Rouse, 1994, p. 96). On the other hand, the swarming effect of the disciplinary mechanisms is accelerated through the use of digital media, as local information is readily compiled and transmitted on computers, making central control quickly reach saturation or limit point (Rouse, 1994, p. 96). The focus for trainee teachers learning their trades in local situations such as Tasmania; is rather how their inner nature will be objectified and dominated through the intervention of the normalising power from the exterior. Charles Taylor has expressed this intervention as being through, “the disciplines of organised bodily movement, the employment of time, and the ordering of living/working space.” (Taylor, 1986, p. 77). We shall now examine how the notion of multi-literacy bears up against these forces in education, and the resultant meaning making for the trainee teachers.

Multiliteracies as it has been explained by the New London Group is a theory of literacy practise that is meant to open up and emancipate the learner by giving him or her the opportunity to design their literate behaviour. It is not only about technology in learning, but the recognition that meaning making has gone beyond the solely linguistic, and now must embrace many other elements, such as visual literacy to arrive at what has been termed as multimodal discourse (Cope & Kalantzis, 2000, p. 155). Kress has theorised multimodal discourse in terms of explaining the rational, choice laden layers that constitute its construction. He has aimed at combining the
agency of the user with representation, so that individual learners may be positioned as designers through transformative practise. Cope and Kalantzis have used this notion of meaning making and included it in their four pedagogic practises:

1. Situated practise: this draws on progressive pedagogies such as whole language and process writing and engages and immerses students in literate practises and topics that are part of their community context.
2. Overt instruction: these are explicit and focused learning episodes which draw upon teacher-centred transmission pedagogies such as traditional grammar and direct instruction.
3. Critical framing: this is pedagogy that draws upon the paradigm of critical literacy.
4. Transformed practise: this is pedagogy that focuses upon the transfer of strategies from one context to another (Cope & Kalantzis, 2000).

![Figure 2. The multimodal meaning diagram.](Adapted from Cope and Kalantzis (2000, p. 26)]

We may ask ourselves, is the combination of the four pedagogic practises and the multimodal meaning making (figure 2), what we should be encouraging our BEd
trainee teachers to become proficient at in the present context? It is certainly a convincing picture of meaning making for the contemporary teacher, as it gives them a process to understand the way in which meaning making is changing. As Cope and Kalantzis (2000) have expressed the point, “meaning making is much more than the sum of linguistic, visual, spatial, gestural and audio modes of meaning. It also involves processes of integration and moving the emphasis backwards and forwards between the various modes” (p. 211). In other words, teachers will have to carefully focus their teaching practise on choosing material, the consequent analysis and expression of points arising from that material: in order to produce teaching sessions that should provide the multimodal meaning making that does not prioritise one mode of meaning making over another.

However, how practical a suggestion is this for our trainee teachers? In order to return to the point of social critique taken from Foucault, and Taylor's summary of the power of the normalising forces: we should ask how will the introduction of multi-literate mores control inner nature through the organization of bodily movement, the employment of time and the ordered dispositions of living/working space? Michele Anstey and Geoff Bull (2004) have adapted the multiliteracies perspective on identity to mark out the terrain of a combined and contemporary literacy identity:

![Diagram of literacy identity](image)

**Figure 3. The production of literacy identity.**
Adapted from Anstey and Bull (2004, p. 89).

Through examination of this diagram (figure 3), one might say that multi-literacy is an attempt to introduce ordered dispositions of living and working space in the separation of the life world and the school world. They do come together, but this connectedness is a prioritisation of what the authors have privileged as literacy identity, and this adds to the separation and ordering of the living and working space. Time is employed in multi-literacy through the transformed practise, which is an endless task of transference and adaptation. Bodies are organised in that the present...
system of teachers and pupils is the training ground through which the ideas of multi-literacy and multimodal meaning making (figure 2) are perhaps beginning to be applied.

In conclusion, I am able to perceive many parallels between the multiliteracies project and the normalising powers of the modern state as they have been identified through the social critique of Foucault. The teachers on the BEd in-service course will be able to make meaning that may or may not reach multimodality and therefore transformed practise, depending upon whether they are given the principles and resources to understand how it should function in their teacher’s repertoire. The point of the research is an exploration of how the factors involved with multi-literacy such as the plethora of meaning making options in the technologically enriched environment, play themselves out in terms of trainee teachers and the way in which they are socialised. To study this process, I shall introduce a CD Rom into the training program of the BEd in-service and compare the responses of the students with regards to their perceived literacy with students learning through the summer school. The methodology and results from this study will be presented in a follow up paper.

References

From policy to practice: The forgotten interstices

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Faculty of Education, University of Tasmania

Change agendas in education are increasingly politically motivated. While there often is a consensus for change, political and education agendas typically are at variance. Furthermore, the escalating intensification of teachers' work presents challenges to the processes of effecting change. This paper is based on a case study of Tasmanian education policy implementation. Data sources included political and departmental documents, the print media, and a range of policy actors, including the Minister of Education. The study's participants reported diverse accounts of policy. Teacher-participants expressed varying levels of preference for involvement in the education policy process prior to implementation at school level.

Teachers work in an environment under mounting pressures brought about by the confluence of increasing politicisation of education (Bascia & Hargreaves, 2000) and the intensification of the teaching role (Churchill, Williamson & Grady, 1997). Education policy texts are negotiated and mediated by a range of policy actors who face constraints of time, and who employ differing frames of reference and draw on a variety of prior experiences; “multiple operational forms” of enacted policy ensue (Lowham, 1995, p. 111).

The study: Purpose and background

This case study sought to reveal, in one example of the policy process in the Tasmanian government school system, the different courses one policy traced as it was mediated by policy actors in a variety of environments. The policy process emerged from the issue of inappropriate student behaviour in government schools. Following public debate in the print media and questions asked in the Parliament, the Minister of Education referred the issue to his advisory council and then referred its report to his department to compile a response. The Minister of Education announced a professional development program as a crucial strategy ostensibly to address the issue. This paper provides a report about aspects of this policy process and explores issues which may assist in defining strategies that government or systems might utilise in order to sustain teachers' change.

Methodology

An Australian policy cycle devised by Bridgman and Davis (2000), as presented in Table 1, was employed to provide a lens through which to view the policy process in this case study.
Table 1. Framework for the study based on a policy cycle. Adapted from Bridgman and Davis (2000)

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Note. ---- = observations of the policy process either at the time of, or retrospective to, its occurrence

Qualitative methods included data gathering from a range of document and print media sources, as well as interviews and questionnaires with policy actors, to construct a view of the policy’s trajectory and transference into several school settings. Content analyses of documents, Hansard and print media articles, and analysis of some of the interviews with policy actors, including the Minister, revealed some of the history of issue identification, policy analysis, policy instruments, consultation and coordination, i.e., the process that led to policy decision, in this instance, the Minister’s announcement of the Key Teacher (Behaviour Management) Program. Interviews with and completion of questionnaires by school-based policy actors tracked aspects of the policy’s transference to schools, and a quasi post-script questionnaire invited teachers to reflect on their observations of the policy process and suggest improvements to future education policy processes. Table 2 provides an outline of data gathering sources and methods.

Table 2. Outline of data gathering sources and methods

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Note. ---- = periods of the policy process during which data gathering occurred
Summary of results

Some themes that emerged from the study and that are explored briefly in this paper include: symbolic policy, provision of adequate resources and support for implementation, involving teachers beyond policy implementation, the importance of evaluating policy and professional learning, and the convergence of increased political influence and intensification of teachers’ work. The finding that the policy was primarily symbolic weakened the likelihood of other themes contributing positively to policy implementation.

Symbolic policy

Subsequent to the issue of inappropriate student behaviour gaining prominence in the Tasmanian print media and receiving attention in the Tasmanian Parliament, the Tasmanian Minister of Education referred the issue to his advisory group, the Tasmanian Education Council (TEC) who prepared two documents: first, a discussion paper (TEC, 1994a) that was circulated within educational circles and, second, a final report which the Minister referred to the Department of Education (DoE) for its response. A quick and easy solution was required. Despite acknowledgement, by the TEC and the DoE, of the complexity of the issue of inappropriate behaviour and the incongruity of “a simple set of solutions” (TEC, 1994b, p.iii), a professional development program proposed by the Department, the cheaper of the only two proposals listed with any detail and costing (DEA, n.d.), was adopted by the Minister to form the basis for his announcement of approaches to address the issue.

The announcement released by the Minister’s office stated, in part

Every Tasmanian secondary school and college will be provided with at least one key teacher specially trained to handle students with behaviour problems…. The key teacher program will incorporate a minimum of 13 days’ training …. Such a team approach to professional development has already worked very successfully in the prep literacy program, with resource teachers working alongside classroom teachers. (Beswick, 1995)

This instance of policy illustrated the effects of “political impatience and expediency” which, while acknowledged as plausible influences, are unproductive for longer term or educational change (Fullan, 1994, p. 187). It rapidly became apparent that some aspects of the Minister’s statement would not occur resulting in a lessening of the resources available to each participating school. Colleges were not to be included because their students undertook post compulsory schooling (years 11 and 12) and thereby were deemed to have different needs than younger students attending school compulsorily. The colleges were replaced by the more numerous district schools which include secondary cohorts as part of their K-10 enrolments. The inclusion of a greater number of schools meant that the costs associated with releasing more teachers for professional learning reduced the number of days that could be offered from a very small budget.

The provision of, in the Minister’s words, “at least one key teacher” amounted to what ultimately became 11 days of professional learning for one member of the teaching staff, with schools having to fund replacement teaching time for their Key Teachers to
attend 3 of the 11 days, and all replacement costs if they chose to have more than one key teacher. Furthermore, the apparent rationale for the Key Teacher approach, whereby resource teachers would work alongside classroom teachers, could not be applied to the Key Teacher (Behaviour Management) Program. The Prep Literacy, with which the Minister had compared the Key Teacher (Behaviour Management) Program, had been resourced to provide each school with prep enrolments with additional teaching time to facilitate teachers to work along side each other.

Exponential growth in professional knowledge and a corresponding need for teacher learning are integral to the teaching role (Guskey, 2000). Schools are places for learning; an incontrovertible premise in respect of students’ learning. Accordingly, time, resources, structures and supports are established to maximise student learning outcomes. To overlook the provision of similar conditions for teacher learning equates to “an invitation to disillusionment” (Sarason, 1990, p. 152). Trust is crucial (Hargreaves & Fullan, 1998); adoption of a model professional development that gives the impression of addressing deficits or inadequacies in teachers’ knowledge is detrimental to teacher learning and policy implementation. The Tasmanian Branch of the Australian Education Union (AEU) expressed concern about the model of professional development outlined by the Minister: “It fails to address the real needs. In effect the [department and] Minister are questioning the adequacy of employees’ skills rather than the adequacy, or inadequacy, of resources” (C. Lane, personal communication, March 14, 1995).

A senior officer, with responsibility for the Program’s implementation, commented regarding the political origin of the Program.

It was a political prompt …. The minister was coming under a certain amount of political pressure… there had been some instances in the newspaper about violence in schools … [and] questions [were] being asked in the House. (S.O., interview, 08/95)

Analysis of data from print media, Hansard, and other policy actor sources confirmed the premise that this was symbolic policy. Moreover it was seen to be symbolic by teachers with responsibility for policy implementation. One teacher noted that failure to make sufficient provision, and the obvious political motive behind this policy, risked loss of credibility of their school’s Key Teacher staff member and the program.

As with any ‘special’ position, their credibility with colleagues is ‘on the line’ and they need to perform from Day One. Some colleagues may have seen it as a cynical political exercise. (OT1, questionnaire 10/00, emphasis in original)

The announcement of unrealisable, or symbolic, policies is effectively promoted through, in part, the drawing of a clear distinction between policy-making and policy implementation (Knight & Lingard, 1997). Identifying strategies to ensure that the policy process is more inclusive of a greater range of policy actors is an area demanding greater attention.

Involving teachers beyond policy implementation

In order to develop shared frames for viewing policy and a greater number of mutual understandings, actors involved in stages throughout the policy process, together with
policy researchers, need to evaluate and improve policy practices collaboratively through establishing a “dialogue and connection” in an environment of “mutual confidence” (Blunkett, 2000, p. 19; Holdaway, 1982, p. 32). One benefit that arises from collaboration of this kind is exemplified in the observations of one teacher that pointed to issues of ownership, empowerment and respect for teachers’ expertise.

Teachers are one of the key stakeholders and, while their views, concerns, etc., would have been indirectly incorporated by the TEC and the Education Department, direct consultation with them involves them and may ‘unearth’ other issues, strategies etc. not otherwise envisaged. (OT1, questionnaire, 10/00, emphasis in original)

Reference to the importance of consulting with teachers, in order to reveal additional ideas, was contained also in the observations made by one of the Key Teachers.

Teachers need to know there will be real [emphasis in original] support from beyond the school when all of a school’s efforts have been exhausted re particular students. Rather than have to suspend [a student] we would like some process beyond this; teachers may provide some ideas in the positive. (KT5, questionnaire 10/00, emphasis in original)

Ownership was referred to by another key teacher who provided their view of the often used term ‘consultation’.

Unless teachers feel that they have an input into planning they are unlikely to ‘get on board’. Consultation is being ‘told’, representation is being ‘listened to’. (KT1, questionnaire, 10/00)

While the Tasmanian Education Department’s rhetoric points to the importance of appropriate participation, involvement and consultation with the range of school community members (Department of Education, 2000), this inclusive stance has been matched with a “prevailing milieu of control politics” (Cuttance, Harman, Macpherson, Pritchard & Smart, 1998, p. 148). Additionally, overuse, or misuse, of the term ‘consultation’ may reduce the potential benefits of collaboration.

Change overload on teachers, combined with limitations exercised by other policy actors on opportunities for teachers to contribute to change, frequently results in an adversarial approach to the policy process (Fitz, Halpin & Power, 1999). Consequently, school-based policy implementers, primarily teachers, may be viewed as either compliant or defiant, and their responses evaluated in terms of matching policy-makers’ intentions. Analysis of the data during this study pointed to the dangers inherent in what was perceived as being symbolic policy with respect to inspiring teachers to have confidence in policy-making and change processes.

**Resources and support for policy implementation**

Inadequate funding and the resultant failure to provide an appropriate level of support will ensure either that teachers contest change while they attempt self-preservation (Evans, 1996) or that they simply will be unable to sustain change in which they engage willingly (Hargreaves & Fullan, 1998).
The senior officer with responsibility for the program remarked on the minimal budget allocation, and its resultant limitations on a range of aspects related to implementation.

It has been an extremely difficult area to organise because we were given no resources to do it. I mean we were given the resources to get the teachers out [of their schools] but we had to do it over and above our own current positions and it meant we had to ask people to give up their time, such as the principals and support service people who planned and helped in the professional development. Co-ordination of that sort of thing is a big task. (SO, interview, 08/95)

One principal testified to the uncertainty associated with too many externally driven initiatives and lack of commensurate resource allocation in some instances.

Schools experience difficulty in identifying the issues the department believes are important. The amount of departmental demands contributes to this predicament. Even stated priorities are not always supported. (P3, questionnaire, 07/97)

The capacity of principals, who were not their schools’ Key Teacher, to give meaningful support throughout the program was diminished by their omission from continuing involvement in the professional learning sessions. Principal 3 questioned the omission of principals as crucial policy actors in change efforts.

Behaviour management is such as political issue in schools that everyone has to be involved in the dialogue and the solutions must be agreed. Can one person who is not the principal even lead this? (P3, questionnaire, 07/97)

It is important to bear in mind that the Department had authored the proposal that received the Minister’s approval. Findings of this study indicated that in the instance of this policy, only an initiative requiring a somewhat token budget would be implemented. Insufficient provision of resources for professional development has been likened to assuming a “head-in-the-sand view of professional development” that limits the potential for extensive educational change (Smyth, 1995, p. 72). The policy at the heart of this study illustrated several facets of the results of inadequate provision.

Evaluation of policy

Actors involved in stages throughout the policy process, together with policy researchers, need to work towards collaborative approaches to evaluate and improve policy practices by establishing a “dialogue and connection” in an environment of “mutual confidence” (Blunkett, 2000, p. 19). One observation of the lack of a formal feedback process was noted by a key teacher.

There was very little opportunity to feedback anything; in the _____ district it [opportunities to provide feedback] was all informal. (KT 1, questionnaire, 10/00)

The lack of a feedback mechanism evident in this study is not at odds with the circumstances depicted in the literature. Despite the centrality of teachers’ roles in and perspectives of the development of educational reforms, their opinions and feedback typically are not sought (Bailey, 2000) nor are they informed about how their input has been employed (Bridgman & Davis, 2000).
Evaluation of professional learning

The importance of evaluation receives increasing attention in the literature (Calderhead, 2001). The approach to evaluation in the instance of policy studied, however, was conspicuous by its absence. The lack of resources, and resultant effect on evaluation, were noted in the following observation by the senior officer.

We didn’t have any evaluation process beyond questionnaires at the end of each session, we had no money [except for releasing teachers to participate in the professional learning program] and we had no time because we were doing over and above so we did it on the ‘smell of an oily rag’ really. (S.O. interview, 08/95)

An evaluation framework more broadly based than merely seeking participants’ reactions to professional development is crucial to enable evaluation of: first, participants’ learning; second, organizational support; third, participants’ use of new knowledge and skills; and fourth, students’ learning outcomes (DEET, 1988).

Conclusion

Teacher-participants expressed varying levels of preference for involvement in the education policy process prior to and subsequent to implementation at school level. A common theme, however, was the articulation of a desire for more involvement, or representation by a teacher colleague, in order that teachers’ expertise and understandings genuinely be recognized, and exploited to enhance the policy process. Similarly, principals highlighted their centrality in the provision of leadership and support for policy implementation in their schools.

Fundamental to enhancing policy processes is the creation of contexts in which school-based policy actors: first, are encouraged to view themselves as members of a policy partnership; second, are enabled to communicate and have input beyond the scope typically offered; and third, are facilitated to provide feedback throughout the process, both in ways that relate to the current policy and that have the potential to influence future policy processes.

More than twenty-five years ago, Berman and McLaughlin (1978, p. viii) in their seminal study of education change described a two-way “mutual adaptation” in which programs adapted to the actualities of each school context and in which recognition accorded to the roles and expertise of a range of policy actors were critical aspects of successful change efforts. Their findings and those from this study provide cogent advice for contemporary policy advisers. Assuming that power in the policy process resides exclusively with policymakers is erroneous and intrinsically problematic (Howlett & Ramesh, 1995) and fails to recognize the unique nature of individual schools and the influence and expertise of those who enact policy.

References


A quest for collaboration and community: One teacher’s search in online professional development

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One country teacher participated in a professional development course that was predominantly delivered via the Internet. Communicating via asynchronous methods the participant took part in a course where 16 other teachers were in the ‘audience’ for his communication. Using records of the online communications, together with interview and survey data, this paper explores his attempts at collaboration and finding a place in the community of other teachers. The paper concludes that a paradigm shift in how teachers perceive their role in and prioritization of professional development events is required for successful professional development courses delivered online.

Continuing professional development seems to be particularly suited to the online environment with the opportunities it presents to participate and communicate anywhere anytime. Often espoused as both convenient and time efficient, it seems a win-win situation for employment/registering bodies of professionals and the professionals themselves.

The wider context for this case study is a professional development program for teachers regarding the inclusion of children with special needs in mainstream classrooms in Australia, particularly New South Wales. Since the Australian Federal Government 1993 Anti-Discrimination Act, many students have been progressively integrated into regular schools. The down-side of this educational initiative driven by social justice principles, is that the vast majority of teachers in NSW have graduated from their pre-service teacher training before subjects addressing integration and inclusion were included in that training. The need for professional development programs in this area have been long recognised by many.

In 2001, a professional development program was offered to teachers in a government system country school district of NSW and those in a metropolitan/coastal district of a non-government school system. Seventeen teachers responded and started the course, first attending face-to-face induction regarding the course, the communication and the information systems to be used. For the remainder of the course, communication was via email and electronic forum postings. Some telephone conversations were held when specific troubles were encountered; however, these were rare.

The model used for the design of the professional development course was based on a constructivist philosophy. It aimed to recognise the importance of both inter and intra personal construction of knowledge, based on Vygotskian principles. It was an adaptation of a model previously used with undergraduate teaching students (see McKinnon, Opfer & McFadden, 1998 and McKinnon & Nolan, 1999 for discussion of the model and its evolution). The course aimed to bring together ‘virtually’ a
geographically and systemically distributed group of teachers who had similar problems to solve. In doing so, it attempted to create an environment for collaboration and community for teachers. Activities to promote this included interaction through a focus on joint reading, provision of resources based on individual participants’ requirements and having participants reflect on individual settings. We asked teachers to compare their reflections with those of other participants through communication in a closed electronic forum, and the model assumed these would be an impetus to offer participating teachers a means to form a learning community to solve shared problems.

The concept of a learning community is written in various forms in the literature related to learning and sociology. Depending on the geography of that literature, be it physical (i.e. Europe) or virtual, there are common features. Kilpatrick, Barrett and Jones (2003) discuss such features and varying definitions in light of such diversity, and propose a definition as follows:

“Learning communities are made up of people who share a common purpose. They collaborate to draw on individual strengths, respect a variety of perspectives and actively promote learning opportunities. The outcomes are the creation of a vibrant, synergistic environment, enhanced potential for all members, and the possibility that new knowledge will be created.” (p.10)

Hargreaves (1994) contends that collaboration and its close relative, collegiality, are commonly used and discussed as if they were widely understood, yet

“what passes for collaboration and collegiality takes many different forms… [such as] team teaching, collaborative planning, peer coaching, mentor relationships, professional dialogue and collaborative action research to name but a few”(p.188).

He further explains that what the activities have in common, predominantly, is teachers working or talking together in some way. In this paper, I use the term collaboration to mean more than dialogue between two teachers but rather a reciprocity in learning for each participant to produce a joint understanding.

In the following pages I will elaborate the ways in which information has been gathered to create this case study, my role, the story of the case itself, my discussion of the elements that stand out, and then conclude with possible explanations that inform my understanding of teacher professional development online.

**Methodology**

This paper uses a case study of one teacher who participated in the professional development course explained above. A study of the course, as a whole, was one part of a research project, which will form the basis for a doctoral dissertation. My role in that research, as facilitator of the course, was as a participant observer in the overall structure, and accordingly needs to be recognised in this case study. As facilitator I was responsible for communication facilitation and moderation, managerial, administrative and evaluative functions normally associated with the role of teacher.

As a form of research, case study is defined by interest in individual cases and not by the method of inquiry (Stake, 2000). In this paper I explore the experiences of one
participant in the course, referred to as ‘Garrick’. Garrick was fully aware that documentation and data was being collected for research, and gave formal informed consent to participate.

The case of Garrick is important as it provides opportunity to learn about the concepts of collaboration and community from Garrick’s perspective. It is bounded by who, what and where Garrick was at the time. He was the only male who participated and completed the course. Garrick’s experiences could never be the same as any other participant in the course, the facilitator’s, a researcher’s or a theorist’s, it is unique to Garrick. However, it is useful to look deeply at Garrick’s words and actions in an endeavour to understand how an individual member of the teaching population selected, participated, and completed, an online professional development course. The story of Garrick is a thick description of such an experience.

This case study uses qualitative methods of data collection. Garrick’s case is informed by the use of semi-structured interviews (pre, mid and post participation), online forum and direct (email) communications with the facilitator, and pre and post completion surveys and evaluations. Through all these sources a picture emerges of Garrick’s expectations, actions, articulated views and issues and hindsight.

The case proper...

In the following section, information is given on Garrick’s experience in teaching, professional development and the goals he had in mind when he commenced the course. Following this are excerpts from interviews, information and some analysis from electronic communications over the period of the course.

A snapshot of Garrick

Garrick is a male primary school teacher, in his late thirties, who completed initial teaching education as a mature age student after a career in an unrelated field. It should be noted that it was a field that was bound by rules, regulations and rigidity. Garrick completed his initial qualification three years prior to commencing this course. Since graduation he had worked in local rural and regional schools as a casual classroom teacher for short and long periods. At the time of the course, he was organising and running a special project to cater to the needs of children with behavioural issues – a pull-out program to address student behavioural issues and return them to the mainstream after a set period of time. He had experience of practice and theory of inclusive education through direct experience and his recent qualification studies. Despite this, Garrick felt ill at ease with his knowledge of the workings and integration of special education into mainstream schooling, so much so that when an administrator from his schooling system informed him of the course, he agreed to participate. In his words, he was motivated and had set himself goals to achieve by participating in the course:

“First of all it would be getting an overall understanding of special education in the broad context. I think understanding why students are being integrated into the mainstream, making myself understand the goals that need to be achieved by a student, understanding that the problems that they are facing the outcomes that they need to achieve. Being
aware of the difficulties that they face and understand that there is an area there that you can assist the student. I think another outcome would be to form a close relationship with the parent and the student, sometimes I think that you get caught up with the student and the parents seem to be isolated.” (Tran 1)

Garrick had been involved in relatively recent professional development sessions (within the last year), and professed that personal development of teachers was very important. He also articulated that he was open to professional development being delivered in alternative contexts and that his employer should be exploring alternative forms of professional development delivery. He noted he had mixed reactions to one-day events and believed it was important to share ideas with other teachers.

In the years between graduating and participating in this course, Garrick mainly worked in casual positions and had undertaken professional development at school mandatory staff development days or through regional district mandated ‘in-service’ (the term ‘inservice’ is a popular term in NSW to described employed teacher learning events) programs – mainly related to curriculum changes. He found some of events offered ‘short and sometimes long-winded’ (Tran 1).

Garrick elaborated on why he chose to participate in the course after completion by saying:

“I’m always looking to improve the next chance. Rather than [be] satisfied with the way it’s going, if I can improve that student, and extend the student rather than going, okay, it’s fine. It’s easy teaching you know. And I just think that every student should be given that opportunity. So… I had to look at, with this particular course I had to look think of the links- how is this course going to help me or how is this course, would this course help me.” (Tran 3)

Technology

Garrick disclosed that he had some experience in accessing information via the World Wide Web. He rated his technological literacy as adequate; detailing that he used the Internet to seek out information for school and research, personal and work related correspondence and self-guided professional development. He assessed he was familiar with and regularly used word processing, e-mail, database, spreadsheet, paint and draw programs, Internet browsers and computer games. However, at the induction day when software was being introduced that was integral to the course, it was apparent that Garrick’s technological awareness was at the lower end of the spectrum, as evidenced through examples such as a lack of an email address. This lack of skill was again evidenced during the course, when participants were asked to do a web-search for resources in special education, review them, annotate them and post them to the forum. It was to create a meta-list of resources regarding the special needs in focus by participating teachers. While Garrick did complete this task, he did not provide URLs for the resources he had located. He needed explanation of what a URL was and why it was needed (Tran 2).

Communication/Interaction

When talking about previous professional development experiences, Garrick mentioned interaction as an element of successful experiences. Yet when I explored
this asking about interaction with other people at a face-to-face courses he did not find it important to interact with fellow participants or relate it to learning at the event. As he said:

“I don’t need to interact with the other people that are there, unless you say hello to them. Yeah, unless someone particularly wants to talk to you, they think you’re from a particular area or particular field they want to know, or be known, or to be seen to talk to you.” (Tran 1)

In the online environment, Garrick participated in discussion in bursts, with heavy weighting at the front end of the course. He joined the discussion on a number of occasions, including threaded discussions at the second or third level. In these, he generally introduced himself as ‘From Garrick, Country Primary’ at the top of his response, to make it clear who he was, signing off the same way. He personalised messages with opening sentences such as ‘Great to hear from Marie’ and ‘To Elle Black’ (Forum postings 19/8/01), trying to emulate face-to-face discussion. His postings were very direct, however, and highly task focussed, they did not convey a sense of comfort in the process, as he indicated:

“I have found emailing people that I can’t see a little frustrating, maybe because I’m so used to face-to-face, little questions come up that I need answered that I can’t get an instant reply to.” (Tran 1)

One of the activities used in the course was an online version of ‘think, pair, share’. A common face-to-face collaborative activity to have group members interacting on a one-to-one basis and reporting to the group. This activity was replicated, with participants asked to elaborate their personal experiences in an email message, send it to another nominated participant, comment back to one another, and then combine to post it to the forum. Garrick was extremely hesitant in this activity, saying:

“I haven’t asked the question in the email of the person, I just want to know why that was that and why there was a question that, where do I posit my response to, I mean I sort of wanted it answered instantly and that was a little frustrating because I hadn’t really, because I hadn’t really we’re all communicating. I sent her, Cheree [his nominated partner], I sent her a message and I haven’t heard, she sent me something back so, I’ve … yeah…Time is a thing for her too I suppose. And it’s getting the two lots of information together… whether I’m supposed to send my paragraph and she somehow downloads it and somehow sends it to you [referring to the facilitator of the course]…” (Tran 1)

And yet, later in that same interview, when exploring whether he felt any hesitancy in pressing the ‘send’ button on an email, there appeared a contradiction:

“Yeah, the information is going to be sent. I don’t have that issue. I’m very confident with what I write. Very confident, so I don’t have that issue.” (Tran 1)

When I followed this further in interview, Garrick elaborated, saying:

“… I didn’t know whether you could approach the person because you can’t see them, you don’t know whether you can… it’s private information you’re going into their private space where you send information, are they going to be offended if they hear from Garrick from Country? Do they even want to know this question from Garrick from Country, private space again!” (Tran 1)
Later postings from Garrick to the online forum became purely operational – answering the focus question posed by the facilitator and giving no regard to other readers in the audience (Forum posting 18/8/01; 29/8/01). The sense of belonging had disappeared for Garrick and he no longer acknowledged others or responded to their messages. Toward the end of the course, Garrick’s communications were directly to me, requesting extensions for assignment deadlines or advising that assignments had been sent.

Garrick said that he shared information with work colleagues in his physical environment. He elaborated by saying that he printed pieces of information to give them, and was astounded that they weren’t aware of some key facts available in the information provided as a resource to participants in the course. He was able to share his knowledge and gain credibility with his work colleagues. He felt the information valuable enough to want permanent records of it for future reference.

Discussion

Garrick ‘successfully completed’ the course. He submitted all course requirements – communicating online, answering focus questions geared to knowledge construction, completing assignments that required him to analyse his context at a workplace level, implementing designed interventions to assist his student with special need and evaluated them. He felt the course was successful as he learnt from the information provided and left with a sense of achievement. He was able to share his knowledge and gain credibility with his work colleagues.

But what this course, that could be done anywhere and anytime, did, was replicate the transmission of information for Garrick. Collaboration and community were not replicated for Garrick through the mediated environment that was this course. Garrick wanted the information and he attempted dialogue with colleagues online, but it was forced, unnatural and stilted. He acknowledged frustration with the process. After initial attempts, he stopped. There is tension here. On the one hand Garrick mentions that interaction is an important aspect of professional development, on the other he talked of people only talking to him if there was kudos attached in a face-to-face environment. In practice, Garrick makes a few rather awkward attempts at interaction in the online environment and then turns his back on the audience. I posit that Garrick is aware of educational theory that promotes the importance of interaction for learning. Yet, he does not relate this theory to his own learning in a conscious fashion. Garrick did however attempt social construction of knowledge, though it was not with other participants. Garrick turned to the more comfortable (perhaps safer?) option and went to colleagues in a face-to-face environment. He shared his knowledge with colleagues he was working with on the ground. In fact, he used participation in the course to build his credibility amongst those colleagues, promoting the information so well, that they wanted copies of the information he was sourcing from the course. This is sharing, which Little (1990) suggests is a means of collaboration.

It is important to note a few points here. The first is that I do not mean to imply that Garrick is deficient in any way in this discussion. If we look closely at why Garrick participated, it was purely for the information; he did not come to the course for
collaboration or community. He didn’t give any indication that he saw a benefit in interacting with other participants in a face-to-face, or ‘virtual’ environment.

Garrick treated this course after the initial burst of communication, in a relatively passive sense when it came to collaboration and community. Would he have done the same in a face-to-face environment? Where he would have been ‘eye-to-eye’ with those he needed to work with, teach to and learn from? He may have, but I tend to think that he would have had more commitment to the process as there is no hiding in small group work in face-to-face environments.

If the understanding of teacher professional development is, as its name implies, a developmental process – the question becomes: is collaboration and community required in the immediate learning environment? If not, then the Garrick’s experiences are acceptable. However, if knowledge is socially constructed and internally processed, and pedagogical practices should encourage this, then some form of collaboration and community is required in the process to maximise the learning for an individual. What did Garrick learn of other environments aside from his own? Did he become aware that there are other ways of doing the work, understanding the work, bettering the work? His development was from what was written in the text and by passively reading the work of others. A very safe way that avoids conflict or confrontation.

Garrick in an early interview about his professional development experiences said that he didn’t really interact with colleagues at professional development sessions – inferring that they (the other participants) only spoke to you if there was some kudos in doing so. There seemed to be no value attached to Garrick learning from them, in other words there was no reciprocity in the interaction. In professional development as a whole, one can speculate about why this is the case, could it be a fear of competition, a lack of confidence, or perhaps part of his gender identity as a male and a teacher? In the online environment of this course, it could be any of those as well as a lack of connection. Connection could include issues of gender, systemic, technological ability and experience or even physical geography. Perhaps the face-to-face informal environment provides the connection needed for Garrick to collaborate.

This brings me to how teachers view professional development. Formalising the learning either face-to-face or online changes the dynamics. We can talk about collaboration and community in a one-school environment, where colleagues see each other regularly, can have the informal conversation about personal lives as well as professional lives, and here I think is where the collaboration and collegiality that the literature talks of is the most important. If you take the teacher out of that familiar everyday environment, then you cannot expect these to be transportable. In professional development contexts, as opposed to broader educational reform contexts, the professional development needs may well dictate differences in the notions of collaboration and community. They don’t have to be the same. Another dimension is added when professional development goes online.

Little (1990), in analysing some of the literature that details activities that are grouped under the broad terms collegiality or collaboration, elaborates that there are references
to phenomenologically discrete forms of activities, that she places on a spectrum from independence to interdependence. Story telling and scanning she locates at the independence extreme, sharing she places slightly more toward interdependence, and joint work at the extreme of interdependence. If we use this model, in an online environment with geographically distributed participants, is it possible to develop an online professional development event and encourage interdependence? Activities in the course ranged the spectrum, from storytelling, to sharing and joint work, in a developmental fashion. However collaboration and collegiality and subsequent community were not apparent in Garrick’s communications.

Conclusions

Hargreaves talks about principled professionalism which rests on teachers being “open to, engaging with and developing understanding among parents and the public on whom the future of teaching and state education ultimately depend.” (1999, online). I contend that before we can do that with those ‘outside the school’ we must do so ‘inside’ – with our colleagues.

Bourdieu is credited with coining the sociological use of ‘habitus’ which Webb, Schirato and Danaher explain:

“A concept that expresses, on the one hand, the way in which individuals’ become themselves’ – develop attitudes and dispositions – and , on the other hand, the ways in which those individuals engage in practices.” (2002, p. xii)

This may well prove a worthy means by which to illuminate Garrick’s experiences and ideas further. It would take into consideration his position in his employment system, experiences in the system, his previous employment experiences and how they have dictated his disposition to professional development and hence the way in which he engages in practice.

A logical conclusion may lead one to believe that teachers need to change their views about their concept of professional development if professional development is to be successful in an online environment. To be a passive receiver is to accept the deficit model, which says one needs to be ‘topped up’. Mediated communication takes away the paralinguistics of informal face-to-face communication and the formalisation of written communication requires teachers to develop confidence and maturity about sharing and collaborating in writing. This can be hard in a face-to-face situation, so it is even more of a struggle in the virtual environment. On the other side of the coin, those that theorise, plan and enact professional development experiences for teachers need to be cognisant of the differences in the histories, experiences and disposition of the future participants that they are holding as images. These images guide while they theorise, plan and enact. In this sense the quest is not for the participants, but for the researchers, theorists and facilitators to find ways to bring teachers into collaboration and form community through the curriculum, pedagogy and evaluation messages of professional development.
References


Hearing voices:
The linguistic turn and education research

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The claim that research can produce knowledge is disputed by some sociologists of science and by postmodernist theorists. This paper argues that activities which do not, will not, or can not distinguish ‘knowledge’ and ‘belief’ should not be confused with research, no matter how ‘liberal’ or ‘progressive’ the purported intentions of proponents.

This paper continues a conversation commenced by the author and Dr Peter Rushbrook at the Qualitative Research as Interpretive Practice Conference (QRIP) in September 2003 (Pickersgill & Rushbrook, 2003). Our aim was to develop a deceptively simple point; that the primary aim of research is to increase human knowledge. As teacher educators in the vocational, workplace development and adult education areas we engage with students who are mature aged and have substantial industrial skill and experience. As teacher/trainers they will need to develop curriculum in continually changing work environments, to conduct useful occupational research and, most importantly, to interpret and pragmatically apply research findings of others. This requires an appreciation that although particular research methods can, and frequently do, have social, political and moral consequences, these consequences are logically distinct from the knowledge obtained. Culturally contingent beliefs may influence the direction, assumptions, limitations, interpretations and acceptance of research, but they do not constitute knowledge. Claims that they do confuse ‘knowing’ with the ‘known’.

A joint interest in the history of technical education meant that our approach was stimulated by Keith Windshuttle’s (1996) The Killing of History. As the book’s subtitle, how a discipline is being murdered by literary critics and social theorists indicates, it is an unremittingly hostile, uncompromising, ruthless and highly entertaining demolition of structuralist, post-structuralist and postmodernist cultural and epistemological relativism in history and other disciplines. It is a dish best savoured cold.

A second stimulus for this paper was an address by Yvonna Lincoln at the same QRIP Conference and publicised in other forums (e.g., Campus Review, September, 2003). This mounted a sustained critique of ‘evidence-based research’ as currently understood in United States education policy. In Lincoln’s widely shared view, the promotion of evidence-based research as a ‘gold standard’ is a manifestation of a wider conservative agenda. While the different institutional frameworks and general intellectual climate makes it unlikely that the US experience will be replicated here,
some flow-on seems inevitable. That debate may therefore provide a useful focus for this discussion.

Space constraints mean that only a sketch is attempted of broad philosophical and methodological positions considered below. In particular the paper uses the terms ‘post-structuralist’ and ‘postmodernist’ interchangeably, with ‘postmodernism’ used as a general gloss for the ‘linguistic turn’. Admittedly this runs a risk of the paper conflating many of the Heinz varieties of postmodernism. Foucault, for example, never described himself as a postmodernist. Despite the risk of caricature, those identified here as postmodernists or representatives of the linguistic turn in any case self-identify as such in the context of the evidence based research debate in the United States. They understand that they are targets, why they are targets and that they are identified as products of the same ideological factory. So, for the purpose of this paper it is argued that they share sufficient common characteristics to be considered as a piece. These include: derivation from structural linguistics; irrational views of science; epistemological and ethical relativism and a conflation of knowers with the known.

The paper proceeds as follows. The first section briefly discusses the inability of postmodernism to distinguish knowledge and belief. It argues that this constitutional inability to distinguish the two means that postmodernist critiques are fatally flawed. The second section provides an overview of the controversy surrounding ‘evidence-based research’ in education policy in the United States. It argues that both sides confuse the outcome of scientific practice with its methods. Proponents of evidence-based research identify a specific method employed by some scientists with scientific knowledge. Those who see a conservative political agenda in state imposition of this methodology may well be correct. However, Foucaultian or postmodern reduction of knowledge to sociological construction or to politics leaves these same critics without a rational basis for complaint. Methodological choice is just politics after all. Section three addresses the Human ‘induction problem’ and argues that inductive fallibility is not a sufficient reason for scientific or social scientific scepticism.

The final section takes ‘voice discourse’ as an exemplar of postmodernist practice, and argues that the claims of proponents that they are engaged in ethically justified programs of empowerment and advocacy are hollow. A claim to engage in ethically justified programs cannot be meaningfully made without recourse to some non-relativist ethical position. The humanistic concerns of ‘the Enlightenment’, such as the concept of universal human rights, give such a basis. Postmodernist textural reductionism and relativism do not. The paper therefore explicitly opposes all theories that understand human activity as merely ‘wording the world’ (St Pierre, 2002, p25).

**Truth and knowledge**

To claim that something is known is to assert that something is in fact the case. Knowledge is a claim about truth. Knowledge may be incomplete or partial, but it is distinguishable from belief. It is possible to talk about ‘false belief’, but meaningless to talk about ‘false knowledge’. Such a claim is just wrong from the meaning of the terms. Nor is it sensible to talk about knowledge in the plural. Many different things
may be known by one or more ‘knowers’, different knowers can know the same thing, but multiple ‘knowledges’ of the same thing offends language and logic.

The same holds for ‘truth’. Foucault’s well known statement that ‘I believe too much in the truth not to suppose that there are different truths and different ways of speaking the truth’ (1979, p. 51) is, as intended, striking. But it is unsustainable outside a relativist framework. Foucault is implicitly saying (while cleverly avoiding stating) that ‘truth’ has the same status as ‘belief’. Given that beliefs do not necessarily have truth content, the logical conclusion is that truth does not necessarily have truth content. This is self-contradictory. True Lies indeed. The statement derives its force from a misuse of language to equate logically distinct terms. Like the Red Queen, it is certainly possible to believe impossible things before breakfast. However, a belief in impossible things is a dubious basis for theory construction. Consider a simple substitution in Foucault’s sentence. ‘I believe too much in belief not to suppose that there are different beliefs and different ways of speaking (of) beliefs’. The second statement clearly does not have impact of the first. It simply says that there can be a range of beliefs and different ways to express those beliefs. Which is true, but trivial. There may indeed be ‘different ways of speaking the truth’, language is flexible, but there cannot be different ‘truths’; at least not different truths about the same thing.

Evidence-based research and United States education policy

Debates over research methods, their relations to scientific knowledge and their utility in educational and other forms of social science research are neither new nor restricted to the United States. However, they have recently become prominent with the linkage of a particular set of research methods (experimental designs) to the No Child Left Behind (NCLB) Act 2001. NCLB is itself a reaction to earlier debates about literacy levels and pedagogies highlighted in a (2000) National Literacy Panel Report. These public debates occurred within broader objectives to introduce Standards Based Reporting (SBR) and other accountability systems to government programs. In addition, the National Research Centre (NRC) was asked to identify acceptable scientific research methods (Feurer, Towne & Shackleton, 2002) with the pragmatic aim to identify ‘what worked’. This (2002) Report, although arguably sensitive to White House policies was also, at least partially, a response to longer-term criticisms (both academic and political) of the quality of educational research and teaching, and to a perceived inability of researchers to demonstrate effective programs that would ‘solve the problem’.

At first blush, a preference for evidence-based research would seem to have more to recommend it than lack-of-evidence based assertion; particularly when public policy directly affects the life-chances of individuals and groups. ‘What works’ for students is surely important. Accountability for public money would also seem unproblematic. This is the stated position of supporters (e.g., Slavin, 2002; 2004), and broadly by those who have qualified views of the methodologies proposed in NCLB (e.g., Feurer, Towne & Shavelson, 2002; Maxwell, 2004). However, as usual the devil is in the detail. While the original NRC report was careful to avoid a hierarchical categorisation of research methods (Feurer, Towne & Shavelston, 2002; Mayer, 2001)
and considered that both quantitative and qualitative research shared the same fundamental epistemological basis, it was explicit in rejecting ‘educational fads’ and even more explicit in rejecting postmodernism (NRC, 2002, p. 25 in St Pierre, 2004, p. 26). What is unusual, certainly from an Australian perspective, is that a government’s preferred ‘scientifically based research methods’ have, in the United States, been defined in legislation.

(A) (Scientifically Based Research) … Means research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs; and

(B) Includes research that;
(i) Employs systematic, empirical methods that draw on observation or experiment;
(ii) Involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;
(iii) Relies on measurements or observational methods that provide that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators;
(iv) Is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs or activities are assigned in different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random-assignment experiments, or other designs to the extent that those designs contain within-condition and across-condition;
(v) Ensures that experimental studies are presented in sufficient detail and clarity to allow for replication, or at a minimum, offer the opportunity to build systematically on their findings; and
(vi) Has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review.

(Definition of scientifically based research in No Child Left Behind Act of 2001, pp.126-127 in Eisenhart & Towne, 2003, p. 35)

While neither the Act, nor supporting documents (e.g., US Department of Education, 2002, 2003) exclude qualitative research the intent, particularly in (iv), is clearly to encourage experimental research designs. Indeed, enthusiastic proponents of NCLB have identified medical and agricultural research models as ‘the gold standard’ and have directly asked why previous generations of educational researchers have been unable to find a ‘Salk vaccine’ for specific education problems (Slavin, 2002). The result is battle lines again drawn across the old quantitative/qualitative divide. A particular irritant for some is the denial in the NRC report of any significant epistemological difference between well conducted quantitative or qualitative research (NRC, 2002, Maxwell, 2004, p. 8; cf, Denzin & Lincoln, 2000, introduction). In Educational Researcher alone, a lively and acrimonious debate promises a return to the ‘paradigm wars’ of the 1970s; with additional strategic and tactical weapons developed during the ‘culture wars’ of the 1980s and the ‘science wars’ of the 1990s. (e.g., Barone, 2004; Eisenhart & Towne, 2003; Mayer, 2000; Mazzei, 2004; Oison, 2004; Slavin, 2002, 2004; St. Pierre, 2004).

In light of the explicit identification of ‘valid and reliable’ research with particular research methods it is easy to why the Act and its programs have been so contentious, particularly amongst qualitative researchers. Many critics have been amongst those who had proclaimed themselves the standard bearers of ‘progressive’ social agendas. To have despised methodologies presented as the ‘gold standard’, to have them now associated with funded research and career opportunities (even if these are ‘not really
important’, Barone, 2004). To have the whole program directed at explicitly progressive social objectives (literacy and improved life-chances for children) by a Republican Administration must be particularly galling. The methodological battles were assumed to have been won, and intellectual positioning completed. By 1990 for example, Denzin and Lincoln were confident that traditional paradigms had been defeated.

The traditional period is associated with the positivist foundational paradigm. The modernist and blurred genres moments are connected to the appearance of post-positivists arguments ... In the post-modern experimental moment researchers continued to move away from foundational and quasi-foundational criteria. Alternative evaluative criteria, criteria that might prove evocative, moral, critical, and rooted in local understandings. (Denzin & Lincoln, 1990, p. 3)

Despite talk of ‘blurred genres’ and ‘evocative criteria’, Denzin and Lincoln at least kept their feet somewhere near the ground in their research practice which generally admitted real experience back into the research and design cycles. However, Elizabeth St Pierre is, as usual, is not coy about her intentions to actually put theory into practice.

It is not that a postmodernist (if anyone should claim that label) would reject reality or objectivity or rationality as the committee’s mistaken definition of postmodernism claims; rather a postmodernist (so someone has claimed the label? RP) would say that these concepts are situated rather than universal because they are understood differently within different epistemologies. (St Pierre, 2002, p. 25)

Precisely. ‘Reality’, ‘objectivity’ and ‘rationality’ on this account may be ‘situated’ in any number of epistemological frameworks and are therefore ‘real’, ‘objective’ or ‘rational’ in a relative sort of way. That is, relatively real, relatively objective and relatively rational. As all epistemologies are democratically equal, (except presumably, ‘positivist’ ones, which are hopelessly contaminated by conservative doctrines such as truth and knowledge), there is no way to determine if one or more are relatively more real, more objective or more rational than any other; including of course, St Pierre’s own.

The problem with relativist positions is that they are self-refuting. If what is true is only true relative to a particular society, paradigm, episteme or discursive formation (as post-modernists and cultural relativists claim), then there are no propositions that are true across all societies, paradigms, epistememes or discursive formations. Any contrary proposition is part of an unacceptable totalising meta-narrative. However, this means that the postmodernist claim, which itself is ‘situated’ in a particular paradigm, cannot be true of all. The same self-refuting nature of relativism also renders postmodernist ethical claims either hollow, or paradigm contingent. This is unlikely to faze postmodernists, who consistently (?!?) claim that all ‘rationalities’, ‘positions’, ‘perspectives’ and ‘gazes’ are political anyway. To again quote St Pierre;

‘Clarity’ is always a distinction made through positions of power both to sanction what is legitimate (Popkewitz, 1997, p. 18) and to keep the unfamiliar at a distance and illegitimate. (St Pierre, 2000, p. 478, in Atkinson, 2002, p. 77)
The induction problem and scientific knowledge

While irrational and radical scepticism about science and knowledge of the real world is characteristic of postmodernism in general, a more coherent scepticism is, as David Stove points out, derived from the Humean formulation of the induction problem. As presented by Hume, the argument states that it is logically invalid to argue from the observed to the unobserved. In other words, no matter how many times an event is observed, there is no logical basis for deducing that the same will hold in the future. That is, an argument that ‘all previously observed ravens have been black therefore all ravens are black’ is logically and incurably invalid. (Stove, 1982, esp. chapters 4 & 5). Which is only to say that the conclusion does not follow (deductively) from the premise. This leads to a further argument that scientific theories (which historically had been more or less understood to be confirmed by experience) cannot ever be (deductively) proved. The success of past experiments does not logically entail the success of future ones. Scientists in their practice, generally ignore the philosophers.

Karl Popper accepted the Human invalidity of induction at face value; but proposed falsification to avoid its consequences. If theories could not be proved they could at least be disproved by finding a contrary example. Although Popper can himself be criticised (along with Kuhn, Lakatos and Feyerbend; see Stove, 1982) as holding an irrational view of science, his thesis has particular significance for this paper. Notwithstanding the caricature of ‘positivist science’ central to postmodernist critiques, the wide adoption of Popperian falsification (and fallibilism more generally) has meant that ‘positivism’ in the 19th century sense has simply been irrelevant to the philosophy of science for over two generations. Acceptance of under-determination in science is so commonplace that postmodernists are the only group to still take positivism seriously. Falsification also had the advantage of identifying what counted as a good scientific theory. That is, that it could be falsified by empirical evidence, while claims based on faith (or other non-empirical sources), such as ‘God created the world’, are not good scientific theories because they cannot, in principle, be falsified. However, the proposition that a good scientific theory is one that is capable of being disproved still means that it is forever unable to be proved. A faith in deductive logic as the ‘gold standard’ (especially by legislators) for scientific proof, partly to avoid the induction problem, is arguably one of the unrecognised reasons for the promotion of the research designs specified in NCLB.

Deductive arguments have the property that, if the conclusion is true it is necessarily true. That is, conclusions necessarily follow from premises. Such arguments can be logically valid but empirically empty. Most of the interesting observations and conclusions about the world derive from inductive reasoning. Qualitative research, which usually deals with unique or non-repeatable observations, self-evidently uses induction to explain phenomena. How then to defend induction?

While we may accept that, as a matter of deductive logic, it is invalid to conclude that B always follows from previously observed A, we may nonetheless have good reasons to reach that conclusion. If on all previous occasions we (and the rest of humanity) have observed that the sun rises in the east, or that flames are hot, these are reasonable reasons to conclude that the same conditions will hold tomorrow; or, at
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least to consider it highly probable (Bayesism). Projecting experience to the future we may say that if in a fair lottery of 100,000 tickets you hold 99,999 tickets you should be confident that you will win. It is possible that you may not because there are two possible outcomes; winning and not-winning. However, the chances are not split evenly (p=0.5). The probability that you will win is much higher (p=0.99999) than the possibility that you will not (p=0.00001). This holds across the multiple lotteries and ticket holders of experience. Extensions of these types of argument are generally more useful and explanatory in science than simple deductive ‘falsifications’. As Stove notes;

If I have, as Popper says I shouldn’t have, a positive belief in some scientific theory, what can Popper urge against me? Why, nothing at all in the end, except this: that despite all the actual or possible empirical evidence in its favour, the theory might be false. But this is nothing but a harmless necessary truth: and to take it as a reason for not believing scientific theories is simply a frivolous species of irrationality (1982, p.101)

The discourse of voice

Although voice discourse, and the oxymoronically named Discourse-Based Research, are merely twists in the linguistic turn, they present in distilled form most of the flaws of the Postmodernist Project. To the extent that proponents claim to provide greater insight than that of a competent investigative journalist they can be seen as making positioning moves in an intellectual field, rather than genuine ethical or epistemological statements (Moore & Muller, 1999, following Bernstein). First they posit one or more real ‘issues’ as sites for intervention. These may range across race, ethnicity, gender, deviance or affliction; (but rarely class, e.g., Mazzei, 2004, St Pierre, 2002). The choice may be altruistic or narcissistic, depending on empathy or fashion. This move has a deceitful ethical intent. It surreptitiously positions proponents as ‘progressive’ champions, and implicitly, as the only progressive champions. The next move is the standard postmodernist tactic of reducing knowledge to statements about knowers (Moore & Muller, p.190) to allow knowledge claims to be identified with particular categories of knowers. The subjective experiences of these categories can then, because knowledge and knowing are conflated, be privileged as a ‘true’ and ‘knowledgeable’ (in the Foucaultian senses above) ‘voice’ of whatever marginalised or disadvantaged group benefits from the researchers ‘gaze’. On the right are then placed the ‘dominant voices’; hegemonies of power/knowledge typified (St Pierre 2002, above) by their ‘clarity’. On the left, the subjugated voices, capitalised and apostrophised as the ‘Other (s)’.

These moves in voice discourse provide interesting exemplars of fallacies inherent in the Postmodernist Project. First, the categories identified as ‘Other(s)’ have an unfortunate capacity for fragmentation. As groups of knowing subjectivities they always have the capacity to divide into ever smaller subjective ‘Others’. While this may be celebrated as evidence as the triumph of ‘difference’ (in both the normal English and the Derridean senses), ever enfolding subjectivities reduce finally to individual solipsisms, and ‘silent listenings’ (e.g., Mazzei, 2004). The second problem is that the initial ethical and epistemological moves are parasitical on the very ‘discourses’ that are rejected. There can be no meaningful subjectively-privileged and marginalised ‘Other(s)’ without the contrast of a totalising overarching hegemony
exercising its knowledge/power. Hence, as argued above, the need for the postmodernist caricature of ‘positivism’. Further, identification with the marginalised implicitly accepts liberal (i.e; Enlightenment) assumptions of relations between human rights and ethical conduct in order to identify the oppressors and the oppressed. Yet universal principles involve the sort of ethical meta-narratives that postmodernism must reject. To be consistent, voice discourse is left with a relativist, amoral world in which ethical standards are locked inside incommensurable and increasingly fragmented subjective categories. The result is that it can give no coherent reason for advocacy of progressive political activity without a disguised appeal to the very Enlightenment rationality and ethics it rejects.

In conclusion

Entering into the post-modernist spirit of play and pastiche we can only agree that it

... is a very supple category that includes diverse and contradictory theories that resist, refuse and subvert the category ... (and that it) ... does not comprise a ‘School of Thought’ but refers to a motley and elastic range of things ... that includes certain feminist theories, post-colonial theories, race theories, queer theories, poststructural theories and others (St Pierre, 2002, p. 25).

Disregarding a Disneyesque vision of anthropomorphised theories ‘refuting’, ‘resisting’ and ‘subverting’ each other (to the Dance of the Sugar Plum Fairy?), relativism leaves postmodernists without epistemological or ethical grounds for the sort of interventions they purport to desire. The faux-radical Post Modernist Project reduces Marx’s 11th Thesis into Lennon and McCarthy’s Revolution #12 and #35. Instead of ‘changing the world’, philosophers of the linguistic turn would ‘change your mind instead’. Not a practical politics, even if, with Foucault, practice reduces to theory. As the Epicurean poet Lucretius (99-55 BC) observed

Life itself is immediately ruined if you are not prepared to believe your senses - and avoid precipices

When all the world’s a text, some precipices are ethical as well as epistemological.

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New learning in teacher education programs

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Schooling in the 21st century must embrace the need for learners to be interdisciplinary, navigate change and diversity, to learn as they go, solve problems, collaborate and be flexible and creative. That is, the curriculum must reflect the notion of New Learning. This paper describes the design of the renewed Bachelor of Education program at RMIT University and how its philosophical underpinnings fit with the concept of New Learning to promote preservice teacher knowledge through critical self-reflection and the creation of a shared pedagogical space for learning. Two key innovations within the program the virtual classroom and shared reflective journals will be introduced and explored.

Background

New teachers for new times

The emergence of ‘New Times’ (Hall, 1988) and the new knowledge economy have real significance for educators who are supporting young people to be active participants in the world (Arnold and Ryan, 2003). Educators are required to develop design skills (The New London Group, 1996) and to reconceptualise their roles to fit with these new economies (Lovat, 2003). Educators are set with the task of being futurologists and knowledge brokers. Not only must they assist students to identify, appropriate and analyse knowledge at a time when information is constantly changing, increasing and being contested, they must forecast the future lifeworld of young people and prepare them for new work economies, essentially for new jobs that have yet to be imagined let alone written. The transformative capacity of new learning writes Arnold and Ryan (2003, p. 5) means “…students of the 21st century can actively create the communities in which they live and learn, rather than live on the margins of those they inherit”.

New Learning in New Times therefore isn’t just about a new rhetoric to accommodate the latest education reform agenda that will come and go. New learning is about realising that the purpose and relevance of education as we have come to know it in the 20th century is no longer capable of accommodating the needs of young people (ACDE, 2001). Essentially we find that many young people have superceded their ‘school education’ with their own real-world self-education (particularly evident in the technology and communication arena). Students could be seen to be voting with their feet – disengagement, boredom and antisocial behavior are symptoms of a lack of active involvement and participation in their learning communities.

The design of the renewed Bachelor of Education program at RMIT University was informed by these growing debates around New Learning in New Times (ACDE,
A set of guiding principles was developed by the design team and presented in the documentation that accompanied the accreditation process. The principles were based on the view that preservice teachers need to become aware of education debates surrounding the nature of curriculum, as well as to develop knowledge, understanding and skills in order to:

- relate learning content to real world contexts;
- present learning as problem-based with a problem solving approach;
- recognise and draw upon students’ prior learning and experiences;
- assist students to be producers of new knowledge and to increasingly assume responsibility for their own learning;
- establish learning environments that are inclusive and responsive to learning and cultural differences;
- support students to be teachers as well as learners;
- apply information and communication technologies to support learning across the curriculum;
- and promote high levels of intellectual engagement and set high expectations for learning. (RMIT, 2004, p. 10)

These principles served a dual role. Not only did they underpin the design of the program, but also informed the pedagogy for the program. The principles charged teaching staff with guidelines for considering the construction of a university based learning environment for our preservice teachers that would model the new pedagogy we were asking them to adopt. The renewed program is designed around a pedagogy that requires our graduates to exit with the following skills and capacities:

- problem solving and critically reflective skills;
- communication skills;
- a capacity to adapt to changing circumstances;
- an ability to work in teams;
- networking skills;
- the ability to use and apply communication technologies;
- awareness of diverse learning needs;
- awareness of the changing environment and of their role in equipping young people to operate effectively within this environment. (RMIT, 2004, p. 20)

In 1993, Papert (1993) claimed that someone from the 19th century could step into a contemporary classroom and know at a glance where he/she was. Further, Papert (n.d.) argued that since almost everyone has spent many years in schools, the image of ‘school as we have known it’ is deeply imprinted in our collective and individual consciousness. Similarly, in 1998, Bigum and Lankshear stated that, while everything around us is changing, education appears to stay the same. Bigum and Lankshear (1998) likened educational change to the ‘old wine in new bottles syndrome’. Although the names of educational frameworks and practices may alter, patterned ways of thinking and operating remain.

In order for the preservice teachers to embrace New Learning, critical self-reflection was seen as vital. As the ACDE New learning Charter clearly articulates new learning will be built around knowledge and capability sets, located and transferable learnings and disciplined and reflexive learning (ACDE, 2001). Pre-service teachers often enter teaching programs with a set of values and beliefs about the profession that are not consistent with New Learning. In a world of rapid change with Information and Communication Technologies altering the learning and teaching dynamics, teacher education students must consider their place in their classrooms of tomorrow in light of their own educational experiences and learnings. In order to bring about change, pre-service teachers need to become aware of their existing beliefs, deconstruct them and reconceptualise the kind of teacher they hope to be. The program must offer a range of opportunities to promote preservice teacher critical reflection and teacher knowledge, and thus consider what it means to be a teacher in current times. A team
of lecturers within the program took up the challenge of incorporating New Learning through courses (courses being the single subjects of the program) within the renewed program, through the use of two pedagogical tools: a virtual classroom and shared journals. These two innovative tools will now be individually introduced and explored.

**The virtual classroom**

We created a virtual classroom of grade 4/5 students, situated in a school environment in an inner suburban setting. Profiles of 26 students were constructed, but the preservice teachers initially found it difficult to imagine their class. We asked them to add their own biographical details to the existing profiles as well as illustrating the students. Asking preservice teachers to visualise the classroom description by drawing a plan continued to help embody the virtual experience. Over the length of the course, we carefully selected and positioned critical incidents drawn from the field (Tripp, 1993) for the preservice teachers to deconstruct from multiple perspectives (class teacher, students, parents, principal). Preservice teachers were located within the virtual classroom where they learn about the culture of the community, the school and the home, as well as interests, learning styles and abilities of the students. They also watch and record best practice from an innovative class teacher who draws upon sound theoretical knowledge to create engaging authentic learning experiences, explicit teaching and rich tasks that are multimodal in design and are aligned to the principles of New Learning.

The virtual classroom offers a space where critical incidents can be shared. Teacher educators have long used critical incidents (Killen & McKee, 1983) to address issues in teaching and learning to introduce and develop reflective practices in their pre-service teachers. These significant moments in teaching and learning are most often drawn from professional practice sites where moments are singled out, described and deconstructed in order to raise greater awareness of their pedagogical importance. While working with these incidents, preservice teachers are involved in identifying the assumptions that underlie their thoughts and actions, analysing these assumptions against their reality and then reconstruct and revision the assumptions so that they become more inclusive and integrated (Brookfield, 1990). While most worthy of individual examination, critical incidents for groups are far more problematic as they require large amounts of contextualisation to be of much value. The virtual classroom provides the preservice teachers with a means to discuss the same students, teacher, classroom, school and school community when working through noteworthy episodes in teaching and learning.

The merits of this virtual classroom are numerous. The preservice teachers are provided with educational theory consistent with practice. They work alongside an energetic and passionate teacher who is moving her teaching into the 21st century. They are made aware of personal and societal constraints in making these changes. There is an online discussion group that allows lecturers and students to explore ideas. The following excerpt shows one pre-service teacher expressing her beliefs as part of a threaded discussion about why children may be bored or frustrated at school:

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...we place a lot of pressure on children whether we know it or not. Pressure to do it the ‘right way’ pressure to learn quickly. I also think the way learning is presented to them does not always relate to their life as they know it and they can’t connect with it, and so become bored and confused about where things fit. (4th year preservice teacher)

Research into areas of student need and curriculum planning are made purposeful as the preservice teachers apply it to particular students in this virtual classroom. As these pre-service teachers critically reflect on their teaching, their peers, the classroom teacher, their university lecturers and mentors in schools are able to provide constructive feedback to support and extend their efforts. The supportive community raises questions such as: Why would you do it that way? Whose interests are being served and who is excluded? Is there a better way to achieve that result? How does this practice align with your beliefs about teaching and learning? The virtual classroom is designed so that questions such as these continue to be asked, in the hope that teachers will begin to ask them of themselves. Learning is also supported by a caring community of professionals. Within this caring environment, preservice teachers are allowed to enter the virtual classroom with the freedom and encouragement to take risks in their teaching while working with this dynamic and challenging group of 9 -11 year olds. There is a need for all educators to trust new ways of thinking in order to redesign practice. Therefore the virtual classroom acts as a safe place for university lecturers and pre-service teachers to continue to learn and build upon New Learning and to put their beliefs into practice.

The teacher of this 4/5F virtual classroom, Anna Jones, is in her fifth year of teaching and upholds beliefs about teaching and learning that we, as lecturers, are extolling in both theory and practice. We feel it is essential for this class teacher to be responsive to New Learning for New Times, yet she also is seen to struggle with how to move her teaching from ingrained ways of being towards her ideals. Although having experience in the classroom, Anna falls into patterned and comfortable ways of teaching as we all do. Fortunately, she remains a critically reflective practitioner who discusses and writes about significant teaching moments in some detail allowing the preservice teachers to witness her wrestling with ways to discard practices that fail to marry with her current beliefs. For instance in the following extract from the virtual classroom documents, Anna (the teacher of the virtual classroom) shares a disappointing day:

Today was not a day I felt good about my teaching. For the second day in a row, I had the class answer comprehension questions silently from the end of the chapter. Yes, I was tired and the class was more restless than usual, yes I needed a settling activity but it’s too easy to fall into this kind of ‘sit down and get on with it’ activity as a regular end-of-day resort. I knew that highly able readers like Simon and Claire were really bored, while those who struggle with reading - Edward, Jack and Koichi - appeared frustrated – the comprehension questions were not pitched at their level. Who were they pitched at? That’s part of the problem: They were aimed at some middle point and none of the students in 4/5F is this hypothetical ‘middle’ child …

What I need maybe is to think through my text activities before I become tired and less patient with the students; they’re tired too and need extra effort from me to engage them in the characters and narrative. Perhaps I should plan some small group acting, create some music to go with a scene, design an alternative book cover? ... I’m feeling better – I’ll do more tomorrow.
Aside from the class teacher providing insights, invited guests, who are part of the school community, are invited to give lectures ‘in role’. We have had the president of the school council, the principal of the school and a Department of Education Coordinator. Some of these invited guests go online and continue dialoguing with the lecturers and preservice teachers. A recent visit from the President of the School Council and the President of Parents Victoria brought rich and varied discussion about the role of families in the teaching and learning of the children in the virtual classroom. These guests discussed parents’ views on homework, information nights and school reports among other areas. Preservice teachers recognised the need to inform, support and move these families towards new ways of thinking about learning. Invited guests continue to create added dimensions, challenges and viewpoints to the virtual classroom experience that opens itself to fruitful dialogue. The challenge to us as teachers who have become new learners continues to be how we can make a static text dynamic in ways which replicate classroom life. It is this interactive potential which renders the idea of the virtual classroom an effective teaching tool, and one which is growing in possibilities as we work with it.

**Shared journals**

As the first year teaching team, we were also interested in finding ways to integrate the eight courses that comprise the first year of the BEd program. We felt that a shared assessment might encourage us to begin thinking differently about course content as well as challenging us to rethink some of our safe and taken-for-granted practices as teacher educators. We felt that if we were expecting pre-service teachers to think deeply and critically about teaching and learning in New Times, then we should be attempting to do this too in our practices as teacher educators. Therefore, the team agreed to implement shared journals across all of the courses. We decided that first year pre-service teachers would be required to create and keep a Shared Journal throughout the first semester of the program with the intention that the shared journal would be used throughout the four years of their BEd program. The shared journal created in first year was to become an integral aspect of the four courses preservice teachers are taking in that semester.

In teacher preparation programs that promote reflective teaching, journals are commonly used as a vehicle for reflection and the development of professional knowledge (Beattie, 2001; Moon, 1999). Zeichner and Liston propose five integral features of reflecting teaching, where the teacher:

- examines, frames, and attempts to solve the dilemmas of classroom practice; is aware of and questions the assumptions and values she or he brings to teaching; is attentive to the institutional and cultural contexts in which she or he teaches; takes part in curriculum development and is involved in school change and efforts; and takes responsibility for her or his own professional development (Zeichner & Liston, 1996, p. 6).

As a way to begin discussing how the Shared Journals are working for team members, we used Zeichner and Liston’s (1996) features of reflecting teaching to see how and if the Shared Journals support these practices. Through our weekly planning meetings, we discovered that although the journals were intended to be used with and for pre-service teachers, they were becoming a pedagogical space for the first year teaching
team to explore and confront our own values and beliefs about teaching and learning in New Times.

The vision

We all wanted preservice teachers to use the shared journal to critically reflect upon knowledge and understandings about teaching and learning in New Times. We saw the journals as a tool for supporting students to examine their experiences, knowledge, and values in the classroom. It would also serve as a way for pre-service teachers to become conscious of their practical theories with their classroom practices (Zeichner & Liston, 1996).

When the team began discussing the assessment criteria for the shared journals, we realized that we all had different visions for the use of journals. Through discussion and debate we created a shared vision of the journal. We acknowledged that as we are living in a time of remarkable change, and social and political transformation, future teachers cannot, on their own, solve many of the social and political issues confronting schools. But at the very least, they should know about them, how these issues influence teaching and learning, and have a sense of their own values and beliefs about those issues. Also our future educators, we believe, need to know how learners engage (or disengage) with knowledge and contexts and understand the reasons for student disaffection and that “…teachers play a significant role in guiding students beyond knowledge to insight” (Arnold & Ryan, 2003, p. 11). The journal was seen as one way to encourage pre-service teachers to reflect on and then critically examine how these issues are connected to their values and beliefs about teaching, learning, and children. But we also wanted the journal to do more. We wanted the journals to promote social action. That is, to prompt the students to move beyond simply critically reflecting on issues, to making real change about them in their everyday lives as teachers. We wanted the journals to support critical reflective practice. The following questions became the focus of our discussion for shifting our vision to reality:

How might the journals become a tool for supporting this kind of teaching? Can we assess this? Should we assess this? What are the risks of assessing the journals? How can we be cautious of the trap of promoting reflective teaching in superficial ways? We do not wish to encourage more reflection, just for the sake of reflecting. Are we emphasizing pre-service teachers’ reflections simply at their own teaching and students, and neglecting the social conditions of the school that influence practice in the classroom? Or, how do we present taking the context of teachers’ work as a given? Is reflection an individualized task? How might reflection become a social practice, where groups of pre-service teachers begin working together to uncover the social contexts of schools and classrooms? What might be undermining the potential for teacher development? How might the courses be doing this, the assessments, professional practice site, and most importantly, our values and beliefs?
The reality

In their shared journal, preservice teachers were asked to document their thoughts, ideas, and changing views about teaching and learning. Through such writing, our expectation was that the preservice teachers would begin to see and grapple with connections between their lives as learners and pre-service teachers, in order to make sense of what it means to be a teacher in New Times, and build and link messages and themes presented across their four first-semester courses. Upon presenting the shared journal concept with the students, we realised that we had thrown them into a state of confusion. Some pre-service teachers were quite comfortable and excited about the use of journals. However, there were several who expressed anxiety about this. Their need to “know how to do it right” amazed us and served as a gentle reminder that this kind of thinking and writing is hard work for some students. We worried about the prospect of the students feeling unsuccessful, and that they might not give the journals a chance, or take the risk of trying something new. As much as possible, the lecturing staff reiterated the vision for the journal – that it was something they carry with them to all classes, jotting thoughts as they engage in lecture and tutorial activities. We encouraged students to spend time reflecting on their university studies at the end of each week, and making a journal entry, not only or solely in words or prose, but in pictures or phrases. In one particular course, students were directed to write reflections on particular topics and submit them for assessment. In the other three courses, we are hoping students will draw from their shared journal as they write their essays and assignments. As we are only mid-semester, we are waiting to see the outcomes of the use of shared journals.

As the semester has progressed, we realise that we have along way to go to bring the vision of the shared journals to reality. We initially underestimated the amount of scaffolding we needed to provide to the students. As we spend time critically reflecting our teaching, we will formalise a more streamlined approach for effectively using shared journals for combined assessment and for teacher action. Although there are several traditions of reflective teaching (i.e., academic, social efficiency, developmentalist, and critical) (Fendler, 2003) we are yet to define what this is for the program. We have a growing sense that most lecturers believe in and support reflective teaching, but we cannot be certain about critical reflective teaching.

Concluding comments

Rapidly changing social, cultural and technological conditions insist that we rethink ourselves as teachers and learners. The students in our classrooms are not the students we were; they are subjectively different by virtue of their relationship to New Times (Green & Bigum, 1993). They have new needs and new capacities which demand reconceptualised pedagogies and curricula. In teacher education, however, we must move beyond the rhetoric and find ways of translating theory into sound practice. Using multimodal environments like the virtual classroom enhance the preservice teachers’ discovery and projection of their professional identities. Explored through the shared journal we have found the critical dimensions of the students’ virtual activities are providing a reflective space for quality learning. As teacher educators ideas of how to create an effective learning environment for the students must fit with
our expanding understanding of the complexities of knowing and learning, and the multiple contexts in which current students will have to function (Lovat 2003). In the renewed BEd program we are attempting to recognize the realities of new learning in new times and construct opportunities for meaningful critical dialogues to guide our practice, both with each other and our interactions with the students.

Footnote

Footnote 1 The renewed Bachelor of Education program is the Teacher Education program in the School of Education at RMIT University. The renewed BEd includes the architecture for mapping a four year Bachelor of Education and one year Graduate Diploma of Education (primary), Graduate Diploma of Education (Secondary) and Graduate Diploma of Early Childhood Education programs. The basic program was redesigned over a one year period and was accredited by the Victorian Institute of Teaching in 2003 for a 2004 implementation.

References

Adventures in multiliteracies: negotiating pedagogic relations in an online era

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Flexible and dialogic theoretical frameworks such as those arising from social semiotic and new media theories (Christie 2002; Halliday 1994; Kress 2003; Lemke 2003) are proving useful in our struggles to understand contemporary relationships in university teaching and meaning making practices. Online pedagogy has pushed us in the direction of more fused relationships among discourse, design, production and distribution. We consider these issues as they arose for us in the design of an online subject as well as in the unfolding pedagogy.

The nature of teacher educators’ work has undergone radical transformation in the last decade as a result of developments in computer mediated learning. Responses to this relocation to the datasphere tend to be polarised between extreme optimism about the expanded communicative potential on the one hand and warnings of a deskilling of academic labour and the commodification of knowledge on the other (Tyler, 2003, p. 339). In our experience at a regional multi-campus university specialising in distance education yet historically a provider of on-campus undergraduate teacher training, we are ever conscious of market-orientated discourses and of the consequential importance of raising pedagogic concerns. Our online engagement has meant a reappraisal of the boundaries between existing teaching practices, and among the different knowledges of academic and other educational staff. As well, for staff members experienced in classroom-based interactions and with sensibilities forged in print-based literacies, the shifts to virtual teaching sites have meant an expansion of our own literate repertoires.

In this paper, we argue that an emphasis on pedagogic discourse as it is instantiated in particular texts and modalities assists us understand and manage the task of teaching in this ‘multiliteracies’ age and provides some useful tools for curriculum design. Firstly we identify the context for this particular subject. Then we describe the responses made to these issues of pedagogy and design. Finally we offer general reflections arising from this experience.

The nature of digital literacies

Throughout we are conscious of selecting certain aspects only of the pedagogic discourse for discussion: those texts involved in the writing of the subject. Kress and van Leeuwen describe the knowledges required in the articulation of texts and those required in their interpretation as quite different:

My knowledge of a language may be sufficient for interpretation of a text, and not sufficient for the production of the same kind of text. … Both articulation and
interpretation rest on knowledge, though what the articulator needs to know differs from what the interpreter needs to know. The articulator needs to have precise knowledge about modes and the possible realisation in modes of the discourse … (2001, p. 41).

While the potential interpretive behaviours of students is always of interest, in this project we are concerned with the activity of articulation; in particular, the use of a HTML editor as a meaning-making tool in the act of subject design.

**Hypertextuality and hypermodality**

Writing (as articulation) and teaching online requires an understanding of the two significant features of digitalised text: hypertext and hypermodality. Hypertext in its simplest form provides linkages between and across texts, these linkages encourage a high level of interactivity between the reader and the text (Tyler, 2003, p. 345). This is a marked shift for those of us used to writing print-based distance education subject packages in which textualities are more likely to be stable and sequenced in a linear way. In contrast, the online text is sequenced by the readers as they activate links. There is also the issue of the relationships carried by the vectors between links, these are not equivalent, symmetrical relations (Tyler, 2003, p. 352). Hypertext links can be made between texts of different scale; that is, paragraphs, sentences, words and even whole texts. Hypermodality refers to linkages between modes of representation; that is, text, image (moving and still) and audio. Lemke (nd) points out that we do not necessarily make the same kinds of meanings with texts of different scales or modes in much the same way as we don’t make the same kinds of meanings with complex sentences as we do with single words and phrases.

Thus the meanings available to readers as they select from multiple trajectories through the online environment are far less predictable to the writer. These textual features are both enabling and constraining for pedagogic designers. The affordances of the technology enable links between multiple forms of representation, for moving image to be linked to word, for an instance to be linked to generalisation. Yet as the text becomes unstable, more fragmented and less predictable, the riskier is the relationship between the articulation and interpretation of the subject content.

**The context of the subject**

Our discussion here centres on developments in an online subject entitled Language and Language Development and offered in our post-graduate courses in TESOL (Teaching English to Speakers of Other Languages). Each of us brought particular interests and capacities to this project. Pauline, the discipline specialist, brought expertise in the content area of English language teaching, as well as educational linguistics. Stephen, an educational designer, brought expertise in web-authoring and design in online learning contexts, he was particularly concerned with the composition of online distance educational materials as the practice of multiliterate and multimodal communication.

The instructional content for the subject includes the major theories of language and language development with an emphasis on English language teaching in an environment of multiliteracies. Multiliteracies is conceptualised in the subject
materials as a feature of intercultural communication as well as of newer technologies (Cope & Kalantzis, 2000). Students in the subject form a diverse group: some are employer-sponsored teachers, others are new to teaching. Some students will work with school-aged learners, others with adults, some work in Australia, others overseas. Our response to such diversity has been to aim to prepare students to work across a range of situated circumstances featuring a multiplicity of local linguistic practices, where English language is taught for a variety of purposes and where access to technology is uneven.

The construction of the subject was informed by what is known as the 3 Dimensional model of (IT)eracy; that is, one which consists of operational, cultural and critical dimensions which are conceptually distinct yet function simultaneously (Durrant & Green, 2000). The model’s emphasis on the simultaneity of the three dimensions contrasts with other approaches which treat technology as an additive to models developed for print-based literacy. The operational dimension involves the ‘know-how’ of online documents in the technical sense of knowing how to negotiate a coherent text comprising print, image, hypertext and layout considerations such as colour and space. The cultural dimension stresses the social context of language and the practices of meaning-making; it is a matter of coming to understand and work with the possibilities for expanded semiosis in educational practices. The critical dimension recognises that the products and practices of literacy are socially constructed and as such represent particular interests and values (Durrant & Green, 2000). Importantly for us, this latter dimension underscores our agency in shaping the online texts and the institutional practices to pedagogic rather than regulative ends. While the complete model remained salient during the project, particular dimensions were under pressure for each of us differently. Because of her inexperience in web-authoring and with more robust forms of online teaching, Pauline was ever consciousness of the operational dimension. Stephen's interests were in the cultural dimension; that is, in teaching as an act of making meaning within a digitalised frame.

The first version of the subject was a very substantial exegesis of the major ideas in language and language learning theories and made considerable use of hyperlinks to assemble an abundance of web-based resources. Evaluations of the initial offering indicated that while the students’ knowledges and competencies had grown, the volume of material in the subject was difficult to manage. In addition the online connectivity among students promised by the online forum did not eventuate. In this subject revision, we therefore decided to focus on pedagogic processes. We wished to provide stronger framing for the students’ traversals of the subject and to increase the density of interaction in ways which would assist the students access the instructional discourse without losing any of its rigour.

**Pedagogic design and the curriculum macrogenre**

In order to understand this new work, we have turned to ways in which the more conventional modes of teaching are understood, and here the ‘recognisability’ (Kress, 2003) feature of genre assisted.
Among the most recognisable (indeed most visible) genres at our institution are the tutorial and the lecture. A traditional distance education package often comprises a commentary written by the lecturer and additional readings. Recently these have been supplemented by an online forum. Each element— the lecture, tutorial, the textbook, the commentary, the additional readings – has evolved to meet particular social ends of the human actors engaged in these social settings. The lecture is typically an expose of the instructional discourse set in the distant social relations of one to many, while a tutorial often functions to ‘ground’ that expose in particular situations or instances amid more horizontal interpersonal relations. The online forum might function similarly to the face-to-face tutorial or it may simply serve as an electronic bulletin board. The functions of these genres are distinct but when patterned together into a larger unit of curriculum activity (such as a subject), they form what Christie calls a curriculum macrogenre (2002, p. 5).

Christie, in her careful linguistic analysis of pedagogic discourse, has identified two types of curriculum macrogenre: the linear and the orbital. In the linear model, teachers and learners work from an introductory genre through sequences of activities or genres in such a way as to build knowledge incrementally, each genre interdependent, building on what has gone before. In contrast, the orbital model, consists of an introductory genre around which related genres cluster like satellites. Christie describes progression through the orbital curriculum macrogenre as ‘accretive’ with genres overlapping as new topics are phased in while others in still in development (2002). This subject, already constructed as a set of topics in historical sequence with overlapping ideas, strongly suggested an orbital structure. Here our use is of the macrogenre is general and twofold: to bring to consciousness some of the naturalised institutional practices and to map the discourse potential of the subject (see Figure 1).

Envisaging the pedagogic texts as an instance of an orbital curriculum macrogenre enabled us to make sense of the process of curriculum design based on what we knew as experienced educators. We recognised how elements of the online subject might serve similar functions to those in the on-campus experience. For example, the original exegesis became a virtual text which served similar purposes to a series of lectures. Use of the online forum was to function similarly to an on-campus tutorial. That is, it was a site for the sharing of personal and professional experiences related to the instructional topic, for the negotiation of difference as well as the construction of common knowledge (Mercer, 2000).

The curriculum macrogenre for the subject comprises a nucleus (or curriculum initiation) and a number of satellites each of which represents a particular topic roughly equivalent to a two week block. The curriculum initiation (Introduction –
Figure 1) served as an expose of the approach taken in the subject, and provided an introduction to key concepts. Satellites 1-4 (Topics 1-4 see Figure 1) represent the means by which the instructional content was to be negotiated collaboratively. The final satellite (Topic 5 see Figure 1) represents the curriculum conclusion: the point for consolidation, evaluation and reflection. Each satellite, articulated through hypermodal access, in turn included a topic introduction, a virtual text chapter, topic activities (including a reading guide) and forum tasks. While students had access to almost all of the components of the subject from the beginning of session, the topic introductions and activities became live throughout the semester. In this way, the mediations of the lecturer were more sensitively tuned to the progress, interests and concerns displayed by the students on the online forum as the subject unfolded.

Such a functional perspective assisted the move from text-based to multimodal pedagogic practices. Nevertheless, we do not assume an equivalence between face-to-face and virtual teaching, our use of genre here is in terms of more generalised functions. Genres develop along with activities in social contexts and as contexts change so too are genres reshaped.

In an attempt to overcome difficulties associated with fragmentation and increasing abstraction of meanings, we developed a case story or narrative that would provide some further cohesion to this non-linear discourse (Laurillard, Stratford, Luckin, Plowman & Taylor, 2000). The case story centres on Pauline’s experiences in the production of materials for use with English language teachers in Papua New Guinea. Because of the multilingual nature of the setting for the case story, many of the major ideas discussed in the virtual text were inflected in the practices described in the
materials. In this way, the specialised instructional discourse of the virtual text could be grounded for the students through the retelling of an embodied experience.

**Relations between hyperlinks**

As we began to exploit the possibilities of hypermodality to link drawings, print texts, websites, and photographs in the case-story, relations between links became relevant. While the curriculum macrogenre provided a means of navigating globally, moving within and between documents also required some mapping. Lemke (nd) has offered a very rich description of hyperlink types, however we have found functional linguistic descriptions of the ways in which clauses can be related to each other particularly through relations of expansion - elaboration, extension and enhancement useful (Halliday, 1994, p. 219). These interclausal relationships can be generalised to those between originating and destination hyperlinks.

**Table 1. Relations between hypertext links**

<table>
<thead>
<tr>
<th>Originating link</th>
<th>Relationship</th>
<th>Destination link</th>
</tr>
</thead>
<tbody>
<tr>
<td>This model will be based on the idea of multiliteracies.</td>
<td>Elaboration</td>
<td>Unsworth describes multiliteracies as ‘multidimensional and multiple’ capacities that include ……..</td>
</tr>
<tr>
<td>Total Physical Response (TPR) is a common teaching strategy for English language teachers in PNG. Very simply...</td>
<td>Extension</td>
<td></td>
</tr>
<tr>
<td>We knew however that these ideas would need to be part of a larger, more elaborate pedagogy that met teachers’ and learners’ needs in this context....</td>
<td>Enhancement</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 exemplifies some of the hyperlink relations in the subject materials. An *elaborating* relation is one which clarifies, restates or exemplifies, the relation can be substituted by conjunctions such as ‘for example’ or ‘I mean’. In our subject, a link from a term such as ‘multiliteracies’ to a definition constitutes an elaborating relationship. An *extending* relation is one which adds information and which can be substituted by conjunctions such as ‘and’ or ‘but’. This kind of relationship is illustrated by a link between a brief explanation of the teaching strategy known as Total Physical Response to a website containing a more expanded explanation
(alternatively, a critique of the method might have been selected). An *enhancing* relation is one which qualifies in some way by providing circumstantial details such as time, space, cause or conditional detail, it can represented by the conjunctions ‘so’, ‘because’ and ‘therefore’. An example of an enhancing relation is a hyperlink from ‘pedagogy’ to a storyboard represented a learning sequence in a PNG classroom.

Describing hyperlink relations thus is one way of bringing to consciousness the available choices for incorporating texts of different scales and modes as well as for monitoring the unfolding narrative/case story.

**Relations in the teacher education arena**

There is no doubt that the ability to recruit multiple modes of meanings is exciting. However it is problematic in the university context. While digital technologies enable one person to create multimodal documents in the mass media industries such as the news and film industries, a different set of practices operate in the education industry. Instead of the integration of communication in the role of the writer-teacher, it is fragmented.

Towards the end of last century, Rowntree (1986) described the production process in most distance educational institutions as one in which an educational designer provided an educational discourse by assisting the academic articulate her/his discipline (see Figure 2). The educational designer ‘marked up’ the subject for text production and took responsibility for issues such as copyright.

![Figure 2. Distance education as an industrial production model](image)

While there was potential for the educational designer to interact with the academic, this model is predicated on the predictability of the practices of articulation in print. Educational design and text processing figured as product enhancement rather than as meaning making activites.

Digital technologies may have flattened hierarchies in the media and publishing industries, however in education hierarchical relations have emerged because of quality assurance demands (Kress & van Leeuwen, 2001) and the consequential uncoupling of curriculum discourses from design and production (Holt & Segrave 2003). These social changes have meant the adoption of an industrial model of production for online education; that is, one consisting of separated and segmented tasks as illustrated in Figure 3.
As a result of our work in the subject, we reject both models in favour of the more integrated one (see Figure 4), proposed by Kress and van Leeuwen (2001). We have come to understand how aspects of discourse, design and production are all present in the making of multimodal texts: design is the material form of the discourse and production also adds meaning. For example, choices for colour in the macrogenre diagram were consciously made to provide cohesion with linked documents.

Representing the process in this way has convinced us of the importance of a community of practice (Lave & Wenger, 1991) driven not by technologies but by the idea of pedagogy as meanings made consistently across all stages of the process. We believe that more productive integrated relations among academics, educational designers and text processors is necessary in this reconceptualisation of university teaching.

**Conclusion**

Our experiences have helped understand some of the existing tensions in teacher educators’ practices. The dichotomy between internal on-campus work and distance education is difficult to sustain in multimodal times. This is because both forms of teaching are brought closer together by the relocations in time and space afforded by digital technologies. As developments in external subjects are occurring, so too does internal teaching increasingly involve the virtual pedagogic space offered by tools such as online forums, chat rooms, CD ROM texts and interactive video. Similarly, pedagogic time converges as teacher and learner presence is required on forums and chat rooms at specific times during the teaching semester for distance subjects in ways similar to that demanded in internal teaching.

In our workplace, we have recently begun to talk of ‘blended pedagogies’ as descriptive of practices in which educators select from available modalities to design
curriculum units. In such design endeavours, models of discourse and text orientated toward meaning serve us well. These enable us to draw on what we know about the structuring of discourse across a subject and the functions of particular stages in the discourse and to consider the kinds of interactivity made possible by expanded semiotic resources. We need to understand how meanings are made in the materials of the internet and the meanings of the choices available. Internet literacies are concerned with more than the operational tools, they are concerned with complex social contexts. While we recognise that the nature of relations among discourse, design and production staff will be negotiated variously according to local circumstances and individual capacities, we argue that an emphasis on and an understanding of processes in this new pedagogic space are crucial throughout those negotiations.

References

Negotiating with ghosts and whales: Teacher education at Warrnambool

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This paper maps the research and development agenda associated with the development of an innovative teacher education program at Deakin’s Warrnambool campus. Theoretically it draws on a model of change that is outside mainstream educational theorising about change, namely, actor-network theory. The program has two broad aims: to develop as a community/school-based program and at the same time to contribute materially to the improvement of educational outcomes for students in schools in the local area. This agenda is one that has begun to be negotiated with the Department of Education, two regional networks, local principals, our students and academic staff.

Introducing the Warrnambool project

Deakin University offers teacher education at three of its five campuses. At Warrnambool, the Bachelor of Education (Primary) program was reintroduced in 2002 (the first intake is currently in the third year of a four year program) following its shutdown in 1998. Until this year, the program had been taught by staff from the Geelong Campus supported by a local school and community liaison person. In part the initial staffing arrangements were influenced by the structure of the program which has few education units in years one and two. In 2003, the Faculty began negotiations with schools, the community and current students via two scenario planning exercises. From this work it was clear that the Education Faculty had two viable options - to run a satellite-style program or to develop an innovative teacher education program with a strong emphasis on community and school co-operation. It opted for the latter and we now refer to the development of this innovative teacher education program as the ‘Warrnambool project’.

In response to both this decision and evaluation of students’ experiences during the first two years of the new education program at Warrnambool (2002-3), a permanent Primary Education coordinator (Catherine) was appointed this year and significant developments have been made in terms of establishing an innovative teacher education program founded on effective university/school/community partnerships. This paper details the research and development agenda associated with the development of this partnership. For reader ease the paper is divided into three sections. The first section overviews the theory framing this partnership, we conceptualise the partnership as competing performances as they relate to actor network theory. The second section theorises the development of the Warrnambool project and the partnerships on which it is based. The final section looks towards the future of the Warrnambool project.
Competing performances – whales and ghosts

Among the many influences that are at play in this development, two are noteworthy and we develop an argument that sees these as performances of teacher education. The first is represented by tourist-attracting whales. Warrnambool is a city famous for its ‘right-whale nursery’ and each year thousands of tourists flock to Warrnambool to get a glimpse of ‘Wilma the whale’ and other nursing whales. The performance of the tourist-attracting whales in the context of this paper represents the very strong community commitment to the program. a sense, the program is being performed in the minds of many in the community as a means of ensuring local teacher supply among other educational ‘goods’. There have been a number of instances in which Principals have gone out of their way to provide support to the running of the program. The second – that of ghosts - points to a nostalgic (re)performance of the program, as it was a decade ago. This performance also has material implications that have manifested themselves in terms of the expectations of some schools in relation to the role of university staff.

The re-establishment of Education at Warrnambool also occurs at a time when Deakin has made a clear commitment to active engagement with regional and rural communities in South Central and South Western Victoria to establish productive, collaborative partnerships (Deakin University, 2003). It also occurs at a time of recent (Ramsay, 2000; Vinson et al., 2002) and ongoing interest in teacher education at state and national levels (Committee for the Review of Teaching and Teacher Education, 2003; Education and Training Committee of the Parliament of Victoria, 2004).

In sum, there are numerous influences and factors at play, all of which, in some respect potentially impinge on and shape an emerging teacher education program at Warrnambool. These and other influences are part of a broader context in which the program is being developed. How these influences are understood, negotiated and are brought to bear on the planning and implementation of the program will clearly be important in shaping what occurs and why. All of these issues are inevitably informed by explicit or implicit theory. We take some space in this paper to develop our theoretical framing of the work at Warrnambool because the way in which we theoretically frame the Warrnambool project is quite different from usual approaches to conceptualising change in education as the following pages reveal.

Conceptualising the Warrnambool project

There is large literature concerned with the study of change and innovation in education. We do not attempt a summary here but rather note that a good deal of research has been directed at identifying patterns associated with change and the attributes of, for instance, the types of individuals involved in the change, the nature of the change and the context in which the change occurs. Thus, terms such as, change agents, change cultures, capacities, stages of concern about change, managing change, micro and macro influences and contexts of change, or their variants can be found in many publications concerned with educational change (Ball & Bowe, 1992; Bascia & Hargreaves, 2000; Fullan, 1993; Goldman & Conley, 1997). Research produces categories or factors which can, in theory, be used to support the planning and
implementation of future adoptions of innovations or perhaps provide an explanation for the failure of a particular innovation. Types of adopters, types of resisters and types of change or innovation are the types of factors identified in this kind of research. The origins of this approach to theorising change can be traced back to the work of Rogers (Rogers, 1995) and his diffusion innovation theory.

Innovation diffusion theory is considered here as representative of, or largely consistent with, most factor or category-based research in innovation. Its explicit application in education has not been common but the broad approach of framing research in educational change in terms of factors or influences has been and continues to be the predominant approach to studying change. For instance, the failure of many of the large curriculum projects of the 1960s and 1970s prompted research which drew on the work of Rogers among others to identify a range of factors that could be linked to the success or failure of these projects, (Huberman & Miles, 1984; Rudduck, 1973, 1991). Innovation diffusion theory therefore, provides a way to model the manner in which a new idea, artefact or practice moves from its conception, through its implementation or its failure. Innovation diffusion posits that innovations are communicated through particular channels over time to the members of a social system. Of interest to innovation diffusion researchers are the particular characteristics of an innovation, the characteristics of the range of adopters (innovators; early adopters; early majority; late majority; laggards), the type of decision making about the innovation (optional, collective or authority-based), the stages an innovation passes through (knowledge; persuasion; decision; implementation; confirmation), the type of communication channels (mass media, interpersonal), the roles of particular individuals in the adoption process (opinion leaders, change agents, change aides) and the degree of fit between individuals in the social system.

Category-based approaches to the study of innovation locate and label influences that are judged to have effects on the course of a change. Categories are determined by researchers from data and constitute the basis of explanation for the success or failure of a particular innovation or change. The key point about this approach to the study of change is that success or failure of an innovation is explained in terms of influences whose characteristics have been judged retrospectively. For instance, category-based analyses find that some innovations fail because of inherent flaws in the innovation or succeed because the innovators ‘got it right’ or were successful because a particular change agent proved to be highly effective. The attributes of the innovation or the skills of the innovators are things that are, in innovation diffusion terms, predetermined but not evident until all of the influences impinging on an innovation have been mapped. In a sense, the attempt to bring the innovation forward is the means by which these characteristics are revealed. In its pursuit of a more predictive model for adoption of innovations, innovation diffusion further seeks to identify predictive characteristics of the components, that is the attributes of early adopters, of change agents and so on. Innovation diffusion and related category-based approaches tend therefore, toward category proliferation. When faced with features of the adoption or rejection of an innovation that can not be accommodated by the theory, the corrective measure is to add more categories or category types.
Thus, from an innovation diffusion standpoint, the development and implementation of a teacher education program at Warrnambool is framed in terms of the factors like those briefly listed above. Such an approach has its appeal, particularly to administrators in that, at least theoretically, factors can be identified and presumably managed. But in the end, at least according to diffusion innovation, success will only come with the right combination of brilliant implementer/developers (academics/teachers in schools), clever adopters (students) and compelling infrastructure and technologies (appropriate teaching spaces on campus and in schools, and effective computing technologies). The only problem for administrators being that judgements about brilliance, cleverness and being compelling can only be made after the event.

A more significant issue with category-based analyses of innovation and change is a reliance on a largely unchanging and unchangeable innovation. The innovation or change, the idea, artefact or practice cannot alter much from its initial conceptualisation or material form during the process of implementation. The other significant problem with this approach to theorising change is the maintenance of a separation between things that have language, that is humans and the things that are without language, that is the materials, artefacts and infrastructure. Indeed, all category-based theories of change rely upon making distinctions or separations between things, or, of purification (Latour, 1993). The problem with making use of fixed categories for projects or innovations is that the very process of innovation is one which produces new arrangements. Forcing configurations of social and technical elements that are intended to be new and different into pre-existing categories seriously limits the reading of such change.

We argue that studying projects – such as the Warrnambool project - or things that are being implemented requires a different approach. One alternative to the tautological accounts produced by category-based approaches to studying innovation is offered by actor-network theory.

**Actor network theory as a way of framing the Warrnambool project**

Actor-network theory (ANT) can be characterised as a form of relational materialism (Law & Mol, 1995) in which networks develop from negotiations and trade-offs between a set of actors. In ANT, networks are constituted by actors which are both human (language-bearing) and non-human (non-language bearing) and the only pre-existing property in an actor is a capacity to negotiate roles in a potential assemblage. A network or assemblage of actors arises as a result of negotiations between actors. Roles and capacities are not pre-determined but emerge as a result of negotiation, trade-off and compromises between actors. Attributes such as agency or power are seen as properties of networks or assemblages not as qualities that inhere in particular actors. As Latour (2000) argues, ANT is interested in ‘things’. Not things as non-living objects or things without language but things as quasi-objects, as heterogeneous networks or assemblies of humans and non-humans. In this way projects or innovations are seen in terms of a process of alliance formation or failure of negotiation and compromise of, in ANT terms, translation.
Thus for an innovation, the initial idea barely amounts to anything, it is merely an idea in someone’s head. It certainly does not have any inherent inertia or momentum that propels it into a social system. If it progresses at all it only does so by interesting other actors and forming an alliance with them. This typically means offering a solution to a problem. For this move to be successful at least two translations need to occur. One is to move the interests of the group or actor so that the idea is seen as a solution to their problem and in doing so to move the innovation a lot, a little or very occasionally not at all. In the case of the initial decision to re-establish the program at Warrnambool, the idea had been discussed for some time but it was not until external advice suggested additional federal funding would be available that the decision was taken. But even then, in order to recruit the Faculty, the program was established as running largely from Geelong. In other words, in order to effect the recruitment of new allies, the innovation had to change; a further translation had to occur. Rather than being a ‘normal’ program staffed out of Warrnambool like other Deakin programs, it was a Geelong-based program. Even when a recruitment of an ally is successful, it can’t be assumed that it will stay in place. It requires ongoing policing to make sure the negotiated roles and the network remain in place.

The account of ANT we have briefly outlined here is regarded as a classical version. The negotiation of the network tends to be seen from the standpoint of the innovator. Star (1991) advocates that additional actors need to be heard. Responding to this and related criticisms, scholars have developed ANT by drawing on the performative turn (Conquergood, 1989). The major difference between early ANT and this later ANT work has to do with coherence and centredness (Law, 1997). He argues that if notions of coherence and centredness are muted or eliminated then a different way to see the world emerges. The basic premises of heterogeneity and materiality remain but it is a world in which ontologies are less certain.

In this vein, this paper is a performance of various realities, ANT, educational change, teacher education at Warrnambool and other indicated phenomena. The paper makes present a representation of these realities and at the same time makes these realities. The performative assumption is that reality is brought into being in the act of knowing. Further, that the relationship between knower and known is recursive and thus the knower and the known are made in the same performance (Law & Singleton, 2000). In what follows we write of the Warrnambool project and contemplate the current and future ways in which the program is being and might be performed – by whom, when, why and how.

Performing teacher education at Warrnambool

During 2002 and 2003 the program at Warrnambool was performed by the Faculty as a satellite of the Geelong program: staff travelled to Warrnambool to teach. This staffing arrangement forced an intensive approach to teaching. An onsite presence was provided by a local community and school liaison person. These circumstances were dictated by the size of the program and the low proportion of Education units in the first two years of the course. In 2003, the Faculty conducted two scenario planning exercises which involved students, staff, teachers, the local community and principals. They produced, among other things, two broad directions that the program at
Warrnambool might take. These exercises tapped what might be called collective mental rehearsals of the program. One, effectively the status quo, saw the program continue from its Geelong base, adding some staff to Warrnambool but maintaining the basic logic with which it began. The other, outlined a program that became a ‘showcase’ for the Faculty in exploring a strong community and school-based approach.

In late 2003, the first steps were taken towards the latter scenario. A key player in this phase of the project was the Regional Office through the early years literacy consultant, Nola. In initial negotiations, the priority of the Office to address patterns of disadvantage in schools was flagged. The new program had been conceptualised as one in which students were performed both as learners in and resources for schools. They were now being performed as resources for disadvantaged students and schools.

Nola proved to be crucial in performing the program and forging a commitment from the Regional Office. She began negotiating with local schools about their participation in the program. In early 2004, working with the newly appointed co-ordinator, Catherine, she obtained the support of local principals in releasing teachers to work in curriculum units (maths and literacy). Now the program is being performed by a full time Program coordinator (Catherine), local principals, teachers and the Regional Office. Importantly, the new coordinator and Geelong staff have provided strong support for the teachers through visits to Warrnambool and ongoing assistance.

We acknowledge that the current way in which the program is being performed (largely through the rotated recruitment of local teachers to work within Deakin) is only the first step in developing an innovative program. In fact, an important part of this evolving teacher education program is the developing partnership with local education leaders. Recently, a number of key actors met to discuss the nature of the partnership underpinning the Warrnambool project and a number of key issues were identified as critical to the development of the program. Interestingly, many of these issues can be framed with ANT discourse; namely that the roles and capacities of all partners not be pre-determined.

The ways in which actors perform their roles in change processes cannot be understood simplistically and this is evidenced in our earlier discussion of ‘ghosts’ and ‘whales’. Indeed, both performances are currently in evidence. There are local schools, with memories of a program of a decade ago, one that was relatively well resourced. These schools perform the new program like the old, putting heavy demands on the co-ordinator to provide visits to schools on a scale and manner of a former time. In contrast, as we have noted, two influential principals perform the program as an educational good. They clearly identify it as a means of ensuring an ongoing supply of local teachers as well as contributing to and supporting the local education network, an organisation which brings together teachers and principals from local primary and secondary government schools and which plans and negotiates a range of activities in schools and the community.

Teacher education students are, of course, the key consideration. We briefly note and aggregate what are multiple performances and this is the subject of ongoing research.
Their resistance to the satellite strategy (and intensive teaching mode) in the first two years, their participation in the scenario planning, their response to the classroom teachers currently working within the program, their decision to remain in the program, and their presence in local schools on teaching rounds is evidence of these multiple performances.

Prior to 2004, the program’s visibility on the campus was minimal (a label on an office door and a notice board). The new co-ordinator has obtained new offices and furniture for staff, part-time administrative support, additional teaching resources and generated a sense of energy and visibility on the campus. The performance of the program through a set of offices, computers, fax, phones, notice boards and teaching materials translates the program. It now has more things attached to it. It is, in an ANT perspective, a little more difficult to remove than it was a year ago.

Some performances are easier to put on than others. They are, because they take advantage of existing assemblages which are in place and are performed routinely. This is a lot easier than trying to recruit allies for a totally different performance. Thus, having local teachers teach in a university setting was easier and, in the time frame, more practical, than developing large sections of the program in school settings. But decisions like this go beyond the merely practical. If certain performances are made durable they provide the template, the durable network onto which subsequent innovations are performed and therefore necessarily limit what is regarded as performing teacher education at Warrnambool. Second, they will obscure the creative spaces that exist between performances.

**Towards the future**

What we are interested in is how the teacher education program at Warrnambool can be developed in line with the broad directions outlined in this paper and made durable. By durable we mean being made into the taken-for-granted way of doing things. We see everything as one as well as a series of performances in the post-structural sense where performance is mutually constitutive. In this view of innovation, the more actors (including the non-language bearing actors) playing along with a particular performance and the more that performance is repeated, the more durable the performance it becomes and the better chance it has of acquiring the status of becoming ‘normal’, routine, natural. Durability, in this sense, does not imply that a particular performance is good or desirable, just that it has been successful in acquiring the status of being natural or routine. ANT draws attention to the work necessary to keep repeating performances and to the work necessary to police performances, i.e. to keep all of the actors in place and behaving. Here, of course, is the challenge: to have a program which is characterised by the constant introduction of new performances, the use of parody, mimicry and other devices to denaturalise old performances, and the ceaseless movement between the new and old performances to give the program the best chance of moving forward.

**References**


School, space and recreation:  
A case study of adolescent girls’ experiences

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This paper explores the experiences of Year 8 and 9 girls in the recreational spaces they create for themselves during recess and lunchtimes. The learning that happens outside formal classes is discussed in relation to students’ emerging identities as secondary school students moving towards adulthood. The paper draws upon qualitative data collected as part of a Master’s thesis at the University of Melbourne. An interpretive framework of Actor-network theory is used to understand the students’ experiences and reflect upon the changing identities and translations of the students themselves, and the spaces and buildings they inhabit. The paper is ultimately a call for policy makers not to overlook the informal learning that takes place during school recreation times. Greater consideration should be given to creating flexible spaces that allow for movement between formal and informal learning.

Introduction: An origin story

I first became interested in Year 8 and 9 students’ school recreational experiences when I was studying the Post Graduate Diploma of Educational Studies (Student Welfare) at the University of Melbourne in 2001. We were set the task of implementing a change in our schools using action research. I taught (and continue to do so) in a K – 12 independent girls’ school in an affluent suburb of Melbourne. It is a beautiful school and the senior section is built around an Italianate mansion that houses reception, staff and boarders. At the rear of this building are the classrooms and spaces occupied by the Year 7 – 9 girls. During yard duty, I had noticed that the Year 7 – 9 students were always in their classrooms during recess and lunchtimes and the rooms became very untidy by the end of the day. Although the students were meant to eat outside, their lockers and bags were inside the classrooms and there was little seating or activity space outside. Students always needed to access their lunch and other items during break times, so locking the rooms was not very practical. I thought that, if the outside spaces were more appealing and better fitted students’ needs, students might be encouraged to spend more time outside during their recreational time. Thus I decided that improving the recreational spaces for Year 7 – 9 students would be my project.

During my action research project I canvassed student opinion about what they wanted to do during their breaks and, in response, I arranged for the school to purchase extra outdoor seating and some sports equipment. In researching my project I found that there was little educational literature on secondary school students’ use of recreational spaces at school. This in itself fascinated me as the time adds up to over 6 hours per week: more time than is devoted to any core subject. Therefore, school, space and recreation seemed worth investigating further. To this end, in 2002, I began
a Master's degree focusing on the way Year 8 and 9 girls spent their recreation time at my school. With so little prior educational research to guide me, I initially used a grounded approach (Glaser & Strauss, 1967) to encourage the student participants to set the agenda and open up themes that I could pursue in group interviews. As the students spoke about their experiences, I began to appreciate the complex networks of relationships involved between the students, their teachers, the school buildings and grounds, older students, school rules (both written and unwritten), the students’ past experiences and the outside world. Above all, these connections were in a constant state of flux, as the students’ own identities and ‘place’ in the school were not fixed either.

**A tool for tracking complexity: ANT**

The students’ stories of their interactions with both human and non-human entities, led me to select Actor-network theory (ANT) as the most appropriate analytical tool to help acknowledge and trace the stories of relationality and identity the girls offered me. The stories of socio-materiality that I was hearing, involved body, mind, buildings, spaces and identities, all interacting together. The students performed/created their recreational spaces within a context shaped by their relationships with both the human and non-human entities around them. Actor-network theory acknowledges that:

> Relations are … materially heterogeneous. They take the forms that they do, if they do (and they do so only contingently and often enough precariously) because they are performed, held in place, in a variety of different media: words; bodies; texts; machines; buildings. All mixed up. Materially heterogeneous. (Law, 1997, p. 7)

Law (1992) advocated moving away from seeing society in terms of macro and micro systems and instead to think of everything as being interaction-based. Some interactions seem to have more durability than others and thus seem to be entrenched or stable. This is just an effect, however, “no version of social order, no organization, no agent is ever complete, autonomous, and final” (Law, 1992, p.4). In the stories that follow we will see orderings and resistances playing out in the recreational spaces the girls have created. We will also see the fluidity in students’ changing identities and the learnings that are happening during recess and lunchtime.

**Places, spaces, selves and learnings: Thinking relationally**

In looking at students’ places of recreation, the spaces and selves they create and the learnings that happen as a part of these interactions, we need to look at these concepts in the ways in which they have recently begun to be understood in human geography and sociology. For our purposes, these understandings converge with the ideas of ANT: “places are always changing and are comprised of human and non-human relations cut through by forces and ideas from other times and places” (Mannion, 2003, p. 62). Mannion advances Massey’s (1994) argument that places are no longer stable and our sense of place reflects only a momentary state of affairs. Not only should places be seen as unfixed, existing in space-time, but, similarly, identities:

> We may be as multiple as the social relations in which we participate and the ‘selves’ they define. … Places and people are not fixed entities with essences; but are ever-
emerging processes under production and are always the subject of power and politics. (Mannion, 2003, p. 63).

This means that we need to think in space-time, which countenances the simultaneous existence of many spaces, interconnecting in multitudinous ways, some of which are harmonious, others antagonistic and all the shades of grey in between. The nature of the lived experience and its interpretation will vary as each actor holds a different position in the network of the moment (Massey, 1994 in Mannion [ibid.]). Mannion then reflects on some of the theoretical understandings of how learning happens (whether in a formal or informal learning space) and summarises:

Knowledge, identities, and environments emerge in a coupled manner together. ... Knowledge is not a ‘thing’ that can be taught but flows verb-like within relationships between people, places and a range of other features of systems (Mannion, 2003, pp. 63-64).

In this case study, learning and informal learning merge into the holistic and embodied learning that occurs at every level within a school. The formal learning in the classroom overlaps and interconnects with the fluid sets of understandings generated by the students’ experiences in their recreational time. These understandings help form identities of students or year levels. Identities are points of temporary attachment to the subject positions which discursive practices construct (Hall, 1996, p. 6). Identities are never fixed and unified. A poststructural approach to understanding identity accepts that identities are multiply constructed across different discourses, practices and positions. Discourses make available particular kinds of subject position and identity. For example, the discourse of schoolyard recreation positions a student in particular ways: a Year 7 student could be positioned as a child, a neophyte within the senior school context. A Year 10 student could be positioned as more knowing and sophisticated and able to occupy particular recreational spaces unavailable to students from other year levels. This case study is an attempt to listen to the Year 8 and 9 girls as they tell us how they, and others, eat, talk, relax and learn to be senior students as they occupy their recreational selves.

**Methodology and methods**

The case study began with observations and taking photographs during break times in a busy courtyard surrounded by Year 8 and 9 form rooms. After analysis of this data, I then devised a draw and write survey consisting of photographs of the main recreational spaces in the school (and one blank box for other spaces) on one side of an A3 page and a blank framed area on the back. The students wrote notes near the photographs indicating which areas they spent time in, whether they liked the space/s and what they did there. On the back they were asked to make notes or draw what their ideal recreational space would look like. 43 Year 8 and 47 Year 9 students filled in the survey. From this feedback and my observations I devised semi-structured interview schedules. I conducted 2 semi-structured group interviews and 1 focus group with the Year 8 students and 2 semi-structured group interviews with Year 9 girls. Each interview consisted of between 4 and 7 participants. The School Principal gave permission for all the Year 8 and 9 students present to fill in the draw and write survey and students who were interested volunteered to participate in the interviews. Parents and students filled in permission forms allowing the girls to participate in an
interview and for the interview to be audio taped and transcribed. The interviews were held at lunch times and I provided the girls with soft drinks and snacks, and each interview lasted between 35 and 45 minutes. Real names have not been used.

From the surveys, the use of each recreational space was tallied and students’ ideas about the type of recreational space they would like were sorted into categories. This information helped generate the interview questions and some of the same questions that appeared on the surveys were also asked again in the interviews to generate more detail and to serve as a form of member checking. Each interview transcript was read a number of times to gauge general patterns of meaning. Key words were tallied to ascertain repeating patterns and themes. These themes were then coded at increasing levels of abstraction with the goal of examining the relationality embedded within each of the key themes. The quotes were chosen because they tell us about aspects of the relationships between the students and their surroundings, as the students understand these relationships.

**Transforming spaces / transforming selves**

In this section I discuss two significant transformation processes that the students spoke about. One was the transformation of their classroom from formal learning space to informal recreation space; the other was the more delicate transformation of the girls’ identities from juniors to seniors. It should be remembered that these transformations should be seen as peculiar to the individuals involved and to my school setting in a single-sex environment. One of the most frequently used recreational spaces by Year 8 and 9 girls are their classrooms. The classrooms oscillate between being homerooms, formal learning spaces and recreational spaces. For most students in Year 7, being able to stay in their classroom at break times is a new experience. While it is an unusual privilege to be allowed in the classrooms during breaks, the transformation of the classroom from formal learning space to recreational talking, eating and living space is frequently untidy. Year 8 students talk about their recreational experiences in the classroom:

Everyone tends to gravitate around the classroom. (Stephanie)

People’s stuff’s there. (Rebecca)

I feel when I go into my classroom, it’s like, kind of my own country and when I go into other classrooms, it’s like a foreign country. I don’t know the classroom. It looks different. You feel weird there. You feel, like, more comfortable in your own classroom. (Alethea)

75% of the time, your class before recess or lunch is in the classroom. You can just stay in there and it’s just easy to sit there and finish work or sit there and talk instead of getting up and moving or whatever. (Emma)

Sometimes I use my computer; check my emails - in my classroom. I just plug it in. (Maddie)

Millie speaks about the problems of the classroom’s dual role as learning space and lunch space. She then described how the untidiness seemed to snowball through the day, while comparing it to the classroom at her previous school:
I find it an advantage and a disadvantage. Like I notice that our classrooms are a lot more dirty – like messy, and at the end of lunchtime there’s food squished into the ground and boarders’ plates everywhere. Oh, it’s really yuk. And, at my old school, that didn’t happen, like it happened a bit, but not as much, cause we weren’t allowed in the classroom at lunch or recess, so our classrooms were a lot tidier and neater and cleaner. Without people being in them so much, it was neater. People wanted to keep it neat because when you were in there you had to actually work. Like here you have to work but when are you meant to keep it neat? Because at lunchtime you just mess it all up again. The privilege is like – it’s good – but I suppose it’s not 100% necessary - to get to our lockers and bags, yes, but not to do work. cause there’s always the library or the computer centre that you can go into.

The transformation of the classroom into a lunch room/recreational space exerted a toll on the quality of the classroom environment. With the prospect of the ensuing mess at lunchtime, Millie implies that the students lacked the motivation to tidy up at all. In the following excerpt, some Year 8 students speak about missing a playground now they are in secondary school. They also mention some of the physical activities they enjoyed in primary school where they were not allowed into the classroom during breaks:

Amanda: … when I was in the junior school I really liked monkey bars and stuff. I’m a bit of a little kid, so I really like (laughing) like, slides and stuff, except, like, you don’t have that in the senior school cause, like, the older girls don’t –
Nicole: …I’ve looked at quite a few senior schools and I haven’t seen one that’s had, like, a playground of some kind – and I miss that. I used to love playing on the bars and playing chasey around and Keep off the Ground …
(Several “yeahs” of agreement)
Millie: I think a lot of people might say it’s childlike and embarrassing to say you want to play on a playground but a lot of people do.

Here the students assert the values of their primary school selves, selves who like monkey bars and chasey. Nevertheless, they have learnt that admitting to wanting to play is “childlike and embarrassing” (Millie). In another Year 8 interview, Stephanie and Sally talk about how social pressure discouraged the playing of games that had been enjoyed and accepted previously:

Stephanie: I think that a lot of people here now, like if you do a survey, a lot of people would like want to play chasey or something, but it’s just like people feel pressured and feel that you’ve got to sit in the classroom and talk. If you know what I mean… that’s the senior school feel.
Sue: Do you think, is that what people feel they should be doing? Or is that how they see senior school?
Stephanie: I think that maybe people think that like, they’re weird if they play chasey or something. That the older girls might think you’re weird or something.
Sue: OK. So you think people feel a bit vulnerable with the older ones watching you?
(Several ‘yeahs’)
Sally: They’re like…intimidating.

The students have learnt that “the senior school feel” (Stephanie) is not compatible with playing chasey. Just the presence in the recreational space of the older non-chasey-playing girls is enough to intimidate the younger girls. The activity of playing chasey could result in being thought of as “weird”, so to preserve a respectable identity-space, chasey is eliminated, even though it would still have been enjoyed.
Later in the same interview, Stephanie and the others reflect further on their changing identities and the physical constraints in the senior school (such as the older girls, the architecture configuring the way they would have to run and the out of bounds field) that also discourage play.

Stephanie: You know how I was talking about senior school girls might think you’re weird if you run around, I don’t think that now but I thought that in Year 7 because now I’m sort of used to talking in the classroom. I’ve become accustomed to it. Like rather than Year 6 to Year 7. In Year 6 we were used to running around and playing Cops and Robbers. We don’t really play that any more - Rebecca: We can. - It’s just that - Stephanie: We can - Sally: There’s no trees and even if there are, like all the older girls sit round and if people are running to them and if they trip over or hurt each other or something like that, and there’s no room to run around. Stephanie: There’s only one way to get around so you can’t. Sally: The field was basically all year last year was out of bounds so we had basically nowhere to go. Now we can go on it except there are always groups placed on the field so you have to dodge people. Stephanie: Because of the field like how it was closed off for about a year, like no one goes on there any more. No one’s used to going onto the field. We don’t know whether we can or not.

Some of the Year 9 students recall their experiences and selves in Year 7 and 8 compared with their present situation:

Zoe: I remember coming up from Junior school in Year 7 and thinking “What are we supposed to do at lunchtime?” What is there to do? They’ve got no, like, basketball rings or there’s nothing, like, to do. But then, because there’s nothing to do, you just sort of settle in to the talking and the sitting in classrooms. Belinda: That’s what you do when you’re older, like you just grow out of it. Someone else: It becomes a habit. Belinda: 7 and 8s would want basketball hoops and stuff like that. 4 square is a good idea - but I think once you get to the end of Year 8, the start of Year 9 you just want to sit down and talk, you know, about the week end, or, I don’t know - Caroline: You’ve got like different lives sort of - Belinda: Different interests. You’ve got more to talk about when you’re in Year 9 than when you’re in Year 8. Caroline: When you’re in Year 8, you’re sort of not at that stage yet. If you know what I’m trying to say? Sue: Yeah. I do, I think. Caroline: Yeah, Year 9. Sue: That’s interesting that the rest of your life is feeding into your lunchtimes and things. Caroline: Yeah.

Within these conversations students traced their changing identities from Year 7 students who want activities and play equipment (but settle for the default position of sitting and talking in classrooms); to Year 8 students who, although used to not playing, would probably still like to, and have not got the range of conversational topics that emerged in Year 9, due to the girls’ “different lives” (Caroline). The following conversation shows the Year 9 girls reflecting on the ‘in between’ identity of being in Year 8 and the purpose of walking around the school (which is a frequently performed activity in Year 7 and 8).
Caroline: I reckon by Year 9, you can’t be bothered walking around, just like, we’ve done that for two years. Get over it!
Sue: Why do you think Year 8s do it?
Caroline: Finding their place.
Fiona: Like sussing it out.
Sarah: With Year 8s you’re sort of stuck in the middle; you’re still like the Year 7s, you want to have fun and play with the totem tennis and stuff like that. But then, you’re also a Year 9 as well: you want to sit down. So, you’re not really sure what you want to do. So you basically do … you don’t really know where to go. You’re stuck in the middle.
Marina: In summer, I walk around but like winter, if someone goes “Do you want to go to the tuckshop? I’m like “No, too cold”.
Fiona: I do see the Year 8s sitting down in the classrooms. I do watch them and see them sitting in there but, sort of like, they run out of stuff to talk about. Well, that’s what we had, so like just say we ran out of stuff to talk about with Caroline and Zoe and Sarah and I would go off for a walk. And then we’d get bored of each other so we’d go back to the classroom and then I’d go off for a walk with Caroline. You run out of stuff to say.
Marina: Cause in Year 8, you’re still like a little kid but then you have, like -
Zoe: And you want to be seen as mature -
Marina: It’s like, yeah, you want to be seen as mature so you like say, we’ll sit in the classroom and we’ll be, like, cool.

The girls have recalled aspects of their Year 8 selves, being in an “interstice” (Bhabha, 2001, p. 137), between their younger and more mature selves. Belinda termed it as not knowing where she belonged. The Year 8s perform activities like walking around; “sussing it out” (Fiona); “finding their place” (Caroline); wanting to be seen as mature and cool while still being “like a little kid” (Marina) but being “stuck in the middle” (Sarah). This uncertainty about personal identity is well documented in literature on adolescence. Here we see close-hand the interrelationship between identity and recreational activity, and how the girls are trying to perform themselves into coolness and maturity even though they are telling us that the ‘mature’ activities like sitting around and talking inside are not yet entirely comfortable ways of being for at least some 12 and 13 year-olds. The following excerpt describes an interaction with Year 10 where Year 8 students, venturing outside, learnt an “unwritten rule” (Stephanie, Rebecca) about where not to sit:

Leah: A couple of girls thought that “We want to sit where the Year 10s sat” and they went there and they got told off by the Year 10s, like to move. They got so cross and -
Emma: I remember that. That was really funny.
Sue: So you think that each Year level’s got a particular ownership over a space?
Leah: It’s not an ownership but everyone knows that that’s where everyone sits, like, it’s kind of like -
Stephanie: It’s like an unwritten rule or something. You don’t sort of think of sitting there because they sit there if you know what I mean; like it’s not like you can’t, but you just don’t think of it. You just know that -
Rebecca: It’s like an unwritten rule.

Orderings and resistances: Informal learnings in recreational space

The students have told us that performing a senior school style of recreation demanded significant learnings and changes in identity. The girls had to use observation to work out and apply the unwritten rules of where they could go. They had to substitute play activities with more ‘acceptable’ pursuits like walking around and sitting in the classrooms in order to attain a senior school identity and be part of the senior school order of things. The school architecture and the older girls’ actions
exerted powerful forces in their relationships with the Year 7 and 8 girls. The lack of a playground and space, and the physical presence of the older girls, made running around and playing too difficult to be viable, even though the younger students expressed resistance to the lack of active options. Turned around, the buildings and the senior girls could be seen as resisting the younger students’ impulse to play. The lack of a playground could be read as a directive that young women should be performing more docile recreational activities. Although this may no longer be a widely held belief in girls’ education, the historical design of the built environment still retains the values of earlier eras, with which today’s young people must interact.

Within the relationships we have seen here the younger students adapted to their new environment and appropriated their classrooms for recreation. These places fulfilled many of the students’ needs (apart from their need to be active) but perhaps more support to facilitate the dramatic changes in classroom identity from formal to informal and back to formal learning space would have helped. After a period of ‘faking’ a ‘cool’ senior school identity most of the students seemed to be growing into their new selves by Year 9. With more ‘grown up’ lives outside school, talking became more interesting, and a more desired activity rather than just the default.

**Implications for educational policy development**

Although much has been written about transition to secondary school in terms of academic and psychosocial adjustment, little is known about the “in-between” spaces (Bhabha, 2001). We have seen here what it was like for students used to playing on equipment and running around at lunch times to suddenly face an environment where there is less space for these activities to happen (and I suspect this applies especially to girls). I hope that this research opens up discussion about how schools could better cater for healthy recreational activities for middle years students and whether the playground has been removed too early from the educational landscape. Hearing the experiences of students in other educational settings would help school planners to design school recreational spaces that would be better suited to students’ varying stages of development throughout secondary school. This paper calls for policy makers not to overlook the experiences that students have during school recreation times. Greater consideration should be given to creating flexible spaces that would allow for movement between formal and informal learning.

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Mental health and teacher education: Preparing beginning teachers who are resilient for themselves and others

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In recent years the area of mental health has grown in importance in education, and is recognised as a major public health issue. Youth suicide, depression and the significant rises in the use of the psychiatric diagnoses have had a significant impact on the complexity of dealing with mental health problems in the classroom and schools. This paper reviews the initiative of implementing a mental health and well-being resource in a teacher education course for all beginning teachers. The findings indicate the value of extending training for all teachers to develop an understanding of mental health issues and problems.

In recent years the area of mental health has grown in importance in education. Youth suicide, depression and rises in the use of the psychiatric diagnoses of Attention Deficit Hyperactivity Disorder (ADHD), Conduct Disorder (CD), Oppositional Defiance Disorder (ODD), Depression and Bipolar Disorder have had a significant impact on the complexity of accommodating and dealing with mental health problems and antisocial behaviour in the classroom and schools.

Sawyer et al. (2001) reported in the Child and Adolescent Component of the National Survey of Mental Health and Well-Being that fourteen percent of children and adolescents (aged 4 to 17) were identified as having mental health problems. This was the first epidemiological study delineating the prevalence of mental health problems in children and adolescents at a national level in Australia. Many of those with mental health problems also had significant difficulties in other areas of living and as a group they were considered to be at increased risk of suicidal behaviour. Only 25% of these children had received any professional intervention in the six months prior to the survey (Sawyer et al., 2001). Mental health problems including depression can have devastating effects in adolescence and increase the risk of school failure, violence or suicidal behaviour (Lewinsohn, Rohde, Klein & Seeley, 1999). The list of at risk groups includes males between 15 and 24 years of age. Characteristics of this group reflect depression and mental illness, with increased incidence in rural/remote areas and/or those dealing with sexuality issues.

Today, there is recognition that being sensitive to and knowledgeable about some of the issues and problems these young people face will greatly improve the level and type of support educators are able to offer them. There is added complexity in rural areas where Fuller, Edwards, Proctor and Moss (2000) reports that GPs, community nurses, police, teachers and clergy are providing the frontline intervention in dealing
The national survey of Australian adults revealed that the proportion with an unmet need for mental health care increased with remoteness – the main barrier to care was self-reliance, followed by pessimism, ignorance, stigma and finance (Meadows, 2000). The prevalence of mental health issues combined with social factors in schools that may exacerbate or alleviate inclusion of students with mental health problems suggests an increasing understanding of the issues by teachers and staff development to assist the practitioners to intervene and provide assistance within the boundaries of their professional guidelines. Inclusion of a focus on mental health problems in beginning and ongoing teacher education programs appears warranted at this point in time. This paper now reviews the implementation of a package designed to assist understanding of mental health issues in a beginning teacher education course.

The **Response Ability** resources

The aim of the **Response Ability** project is to produce and distribute resources about mental health promotion and suicide prevention, for use in the training of certain professionals in Australian universities. The project is an initiative of the Commonwealth Department of Health and Ageing, under the National Mental Health Strategy and the National Suicide Prevention Strategy. In phase one, the project team developed curriculum resources for the disciplines of nursing, secondary education and journalism, with a focus on youth suicide (Waring, Hazell, Hazell & Adams, 2000). In the current second phase of the project, more comprehensive multi-media resources have been developed for journalism and secondary education, with an expanded focus on suicide across the lifespan and mental health promotion.

The **Response Ability** package for teacher education was developed after extensive consultation with tertiary educators and is designed to be easily integrated within the content and structure of current training programs. The materials use a problem-based learning approach, with a number of case studies, questions and activities. The material for lecturers is delivered on CD-ROM, while the student material incorporates video, print and optional CD-ROM resources. Further information about mental health in schools is available for both lecturers and students on a web-site, at www.responseability.org. The package was distributed to universities nationally in April and May of 2002.

**Methodology**

This study provides a quantitative analysis of student teacher responses to implementation of the **Response Ability** package with the Graduate Diploma of Education (a post-graduate one-year program) and Combined Degree with Education (Year 3 of the program) courses at Southern Cross University in 2002 and 2003. The quantitative analysis is limited in its findings as a result of the comparison with two different cohorts of students in subsequent years of implementation. Following completion of the four-week block, all students (N=96) completed a questionnaire about this part of the program. The same questionnaire was administered to the following year’s cohort of final year students (N=112) late in first semester 2003, to act as a comparison/control group, which had not been exposed, to the **Response**
Ability resources. Data from both groups was entered into a Microsoft Access database and analysed using SPSS for Windows software. For each item a mean rating was calculated for both the test and comparison/control groups and an independent samples t-test was used to assess the statistical significance of any differences (p<0.05).

Implementation of the Response Ability package at Southern Cross University

The Response Ability package was first used at Southern Cross University in second semester 2002. The target group included all secondary teacher education students in their final year. The package was implemented as part of the professional experience unit, delivered to students from a variety of curriculum specialisation areas including Science, Music, Personal Development, Health and Physical Education, Visual Arts, Human Society and its Environment, Mathematics, Computer Studies, Drama and English. This approach differs from the use of the package at a number of other universities, in its delivery to all students in the cohort. While some campuses are using the material in core subjects, a number have used the resource only in the specialist curriculum area of physical education and health, or as an elective (Vincent & Reardon, 2003).

The package was first introduced at the end of the first professional experience unit in the secondary teaching course. Students were shown the video excerpt The Black Dog, a drama written and performed by high school students, which is part of the resource package. The short play concerns adolescent depression and was linked with aspects of duty of care, to assist students in developing an understanding of their need to be aware of mental health issues in their role as a teacher.

In the second professional experience unit the package was used as part of a four-week block topic concerning adolescent health and wellbeing. Students attended a one-hour lecture and a two-hour tutorial each week. The block began with a lecture focusing on mental health, with associated data and statistics. The first lecture ended with the video Case Study One: Vince. This case study was then addressed in the tutorial later that week, with particular reference to the aspects of values and morals for all teachers within the school community. The remaining case scenarios were then presented weekly and linked with aspects of teacher responsibility and strategies for addressing mental health needs in schools. Case Study Two: Amy, a withdrawn or isolated school student, was linked with the issue of ethics. Case Study Three: Mark, an angry and aggressive student, was linked with the topic of relationships. Case Study Four: Susie, a student who has shown suicidal behaviour, introduced the concept and importance of empowerment.

The material was supplemented with other resources in the area of mental health, with MindMatters used both as supporting documentation and supplementary information. In this way, students became more familiar with this resource and would be more willing to access it in schools and participate actively in the whole school approach, which it promotes. Students were also given a copy of the Risk and Resilience document as a teaching and professional learning resource and were referred to the web-site for additional information.
Data gathering and results

Students were asked to respond to seven items about the value of the sessions and their understanding and confidence about mental health issues. Each item had a scale of 1 to 10, with ten being the most positive response.

Item 1: Schools and teachers can have a positive effect on the mental health of young people and help to prevent suicide

The mean score for item 1 increased at time 2, suggesting that more students felt schools and teachers can have a positive effect on mental health and help prevent suicide after exposure to the resources. This difference was not statistically significant.

Item 2: It is important for student teachers to learn about mental health promotion and suicide prevention at university or college

The mean score for item 2 decreased at time 2, suggesting that fewer students felt that it is important for students to learn about Mental health and suicide prevention at University after exposure to the resources. This difference was not statistically significant.

Item 3: I am interested in learning more about mental health promotion and suicide Prevention in Australian schools

The mean score for item 3 decreased at time 2, indicating that fewer students were interested in learning more about mental health issues. These differences were found to be statistically significant. One possible suggestion for these results is that after the Response Ability sessions, students felt that they had learned enough about these topics. This would suggest that a four-week block intervention dealing with mental health issues might be an appropriate time allocation in a beginning teacher education unit.

Item 4: I have a reasonably good understanding of mental health problems and mental illnesses in adolescence, such as depression, eating disorders, anxiety and schizophrenia

The mean score for item 4 increased at time 2, suggesting that a greater number of students felt they had a good understanding of mental health issues after exposure to the resources. These differences were not statistically significant.

Item 5: I have a reasonably good understanding of how schools approach the issues of suicide prevention and responding to youth suicide

The mean score for item 5 increased at time 2, indicating that a higher number of students felt they had a good understanding of suicide prevention issues after exposure to the resources. These differences were found to be statistically significant.
Item 6: *I am confident about responding to and working with a young person with a mental health problem, such as depression or an eating disorder*

The mean score for item 6 increased at time 2 suggesting that a greater number of students felt confident when responding to a mental health problem. This difference was statistically significant.

Item 7: *I am confident that I would know how best to respond to a young person who is thinking about suicide*

The mean score for item 7 increased at time 2 suggesting that a greater number of students felt confident about responding to a suicide problem. This difference was statistically significant.

**Baseline Questionnaire Overview (Time 1)**

Each item had a scale of 1 to 10, with ten being the most positive response. Results were slightly skewed toward positive responses, with means for all questions being above 5. The standard deviation was reasonably low for most questions. For items one to four only a small proportion of respondents gave a score of 6 or lower. For items five to seven a higher proportion of respondents scored 7 or lower.

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**Follow up Questionnaire Overview (Time 2):**

Again, each item had a scale of 1 to 10, with ten being the most positive response. Results were skewed toward positive responses, with means for each question being above 6. The standard deviation was low for most questions. Results suggest that despite a broad range of responses, the positive mean obtained for each item is a reasonable reflection of the majority view.
For item 1 and items 4 to 7, mean scores are higher for the follow up questionnaire compared to baseline questionnaire scores. Item 2 and 3 mean scores were lower for the follow up questionnaire. These results indicate that respondents had a greater understanding of the issues and had more confidence in responding to a young person in need following the Response Ability sessions. However, fewer students felt that it was important for student teachers or were interested in learning about mental health and suicide issues. The lowest mean score obtained for the baseline questionnaire administration was 5.17 and for the follow up questionnaire administration 6.63.

Items 4 and 5

The questionnaire Items 4 and 5 address the student’s beliefs about their understanding of relevant issues.

Results indicate that at baseline approximately 74% of students gave a score of 7 or above in response to item four, indicating that they have some understanding of adolescent mental health problems. Only 29% gave a score of 7 or above in response to item 5, indicating that they have a limited understanding of how schools approach suicide prevention and post-intervention. These results suggest that most students feel that they have some understanding of these issues, but there are still a significant proportion of students who are under-confident about their level of knowledge and understanding.

At follow up approximately 88% of students gave a score of 7 or above in response to item four, indicating that their understanding of adolescent mental health problems had increased following exposure to the Response Ability sessions (not statistically significant). Around 70% gave a score of 7 or above in response to item 5, indicating a statistically significant increase in the students understanding of how schools can approach suicide prevention and post-intervention after attending Response Ability sessions.

Items 6 and 7

Items 6 and 7 address the student’s confidence about their ability to respond to a troubled young person.
At baseline approximately 48% of students gave a score of 7 or above in response to item six, indicating that they have limited confidence in responding to a young person with a mental health problem. Just over 34% gave a score of 7 or above for item seven, indicating a lack of confidence in responding to a young person who is thinking about suicide. These results suggest that most students do not feel confident that they could respond appropriately to mental health problems or suicidal ideation in a young person and are under-confident about translating their knowledge into practice.

At follow up, approximately 72% of students gave a score of 7 or above in response to item six and over 61% gave a score of 7 or above for item seven. These results indicate that there has been a substantial increase in student confidence levels, with students feeling more able to appropriately respond to a mental health problems or suicide ideation after exposure to the Response Ability sessions. This difference was found to be statistically significant.

These results suggest that after exposure to the Response Ability resources, a higher percentage of students feel confident that they could respond appropriately to mental health problems or suicidal ideation in a young person.

Discussion

The results for the first two items on the questionnaire suggest that pre-service teachers do believe their profession has a role in mental health promotion and suicide prevention. They strongly believe that it is important to learn about this in their training, rather than exploring this part of their role only when they graduate. There was no significant difference in the strength of their agreement with these statements before and after use of the materials, so exploring the topic further did not influence their beliefs about its value. The results are consistent with quantitative and qualitative feedback obtained by the project team from students attending other institutions.

During consultation with teacher educators prior to the development of the material, some expressed concern regarding students’ levels of interest in non-curriculum areas and felt that this material might be more appropriate delivered as professional development for practicing educators (Vincent & Reardon, 2003). However the feedback received from both students and lecturers following the release of the material has been overwhelmingly positive.

This is also borne out by the results of the third item from the questionnaire, asking students whether they would be interested in learning more about relevant topics. The mean for both groups was very high. The slight but statistically significant drop in the test group may reflect the fact that as a group the students were feeling more confident about the issues.

Baseline self-reported ratings of understanding were reasonably high for adolescent mental health but lower for suicidal behaviour. After the use of the Response Ability materials there was a significant increase in students’ understanding of suicide
prevention and responding to suicide. There also appeared to have been some increase in understanding of mental health issues but on testing this was not statistically significant. It may be that this group had a higher baseline knowledge of these issues based on other elements of their education or life experience, or it may be that a larger sample would reveal some statistically significant change.

The final questions invited students to rate their own confidence in responding to a mental health issue or suicidal behaviour in a young person, moving from the consideration of theory to some concept of putting this into practice. After the use of the Response Ability materials, the student group felt significantly more confident about dealing with both issues than they had before the sessions.

These results support the University’s decision to use the Response Ability resource package with this student group, showing that it was valued by students and that it increased their confidence in dealing with relevant issues. It also adds weight to the qualitative feedback obtained from both educators and students in regard to the value of the resource materials, although they have been used in diverse ways throughout Australia. At the time of writing, the material is being used in some form in 41 university or college campuses, representing 72% of the institutions in Australia, which offer a secondary education program.

Teachers in any curriculum field may be working with a number of young people at risk of mental health problems or suicidal behaviour. This may be particularly true of beginning teachers whose early appointments may be to areas of socioeconomic disadvantage. Increasingly teachers will also find themselves working in schools, which are implementing some form of broad approach to the promotion of resilience and student wellbeing. Accordingly all teachers should have some knowledge of these issues, not only those who intend to teach in the area of health or personal development.

Young people with mental health problems could be considered a sub-group of students with special needs, in light of the effects upon their learning and social development. Many will need referral for specialist intervention, so teachers need to be able to recognise and respond to these young people who are in need of support. This work lends support to the position that mental health - in association with other issues relating to students with special needs - should be a mandatory or strongly recommended component of teacher education programs.

The findings of this study also indicate that a four-week focus on mental health issues for all beginning teachers will assist with their understanding, confidence and ability to respond to mental health problems in schools. Furthermore, based on this work and feedback from others, the Response Ability package is a useful resource to assist in addressing this topic and is valued by both lecturers and students. In the words of one student from another university:

“Looking out for mental illness, depression and other psychological problems is essential. I learned to … confer with other teachers, experienced members of the community and those who know the student …I was challenged morally to see what I
would do in the scenario in the video.” - One student’s comment after a session using Response Ability.

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When teachers are with the babies

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Research has consistently supported the notion that staff training and adult-child ratios are the most identifiable contributing factor towards producing quality early childhood programs, but the infant-toddler setting is the only education setting where it is still acceptable not to employ a qualified teacher in New South Wales. This article justifies the need for the author’s proposed research to explore the pathways and barriers of employing qualified teachers in infant-toddler settings. The aim of the research is to contribute support to the case for university trained teachers teaching in high quality, infant-toddler settings. Is there a space where society values and supports the infant and toddler years as important enough to provide high quality education in our children’s settings?

As I write this paper, page five of today’s Sydney Morning Herald reads “Child care ratios to stay despite pledge” (16th April, 2004). The article goes on to say that The Minister for Community Services, Ms Carmel Tebutt said

… the Commonwealth Childcare Benefit does not provide a scale of payments based on the age of the children, even though care for a child under two costs more than for older age groups. She said that she had written to her federal counterpart, Larry Anthony, about the issue. (Totaro, 2004)

While the Minister acknowledges that the Government needs to take more responsibility for providing financial support for infant-toddler care, little responsibility is being taken to improve the quality of care. Despite substantial discussion, research and, increasingly, practice within the field, the regulations which determine the base-line quality of child care provision for group care for infants and toddlers do not seem to be improving. Adult staffing ratios continue to be regulated at a low rate and qualifications for staff employed with infants and toddlers appear not to have changed – indeed, they are not even mentioned in this article as being part of the broken pledge.

The proposed research

It is the intention of the author to further contribute to the knowledge and understanding of these issues by collecting qualitative data about a case where a qualified teacher is employed at a private long day care centre in rural New South Wales. This case will gather details which focus on pathways and barriers to how the service makes a pedagogical space for a qualified teacher to be employed to teach infants and toddlers. It also builds early childhood research, particularly in the birth to two age range- an area that is that is demanding more acknowledgement within educational research.
Why is quality education an issue for infants and toddlers?

Research consistently supports the notion that staff training which specifically relates to knowledge of child development is the most identifiable contributing factor towards producing quality early childhood programs (Hayes et al., 1990; McCartney, 1985; Philips, 1987; Phillips & Adams, 2001; Wangmann, 1995; Whitebrook et al., 1990). Studies by Howes (1991) and Rubenstein and Howes (1983) make links to caregivers with formal training in child development as being more sensitive and responsive to the infants and toddlers in their care. It is increasingly evident in the field that

…the knowledge and skills that are more likely to lead to the provision of high quality early care and education may more readily be present in well-educated individuals, these with 4-year degrees. (McMullen & Alat, 2002, p. 15)

The current NSW Centre Based and Mobile Child Care Services Regulations (No 2)(1996) and the draft Children’s Services Regulation (2002) both allow for teachers to be employed in infant-toddler settings, but this is above the stipulated minimum standards, which are equivalent to an Associate Diploma of Children’s Services or Child Care from TAFE. Despite the evidence in research, regulations have not reflected this knowledge and children’s services continue to follow base-line regulations. Fleer and Udy describe the state of qualified teachers in Australia in 2000 in the following way:

Of some 60,000 staff employed in Commonwealth-funded long day care centres in Australia, almost half (46% held no qualification, 38 % held a Child Care Certificate or Diploma of Child Care, 12% held teaching qualifications, 4% held nursing qualifications and &% held other relevant qualifications.

Similar proportions of staff in private and community-based centres had no formal qualifications (47% and 46%). (Fleer & Udy, 2002, online)

While Early Childhood Australia Inc. does not specifically define the qualifications of teachers working with infants and toddlers, they make the following statements in the ECA Policy:-Care of Infants:

3. Staff working with infants should have theoretical knowledge and experience to plan and deliver a programme that meets the need of each infant in the group.
4. The foundation of a quality program rests on responsive and warm relationships for infants, as well as planning experiences within the various care giving routines, e.g. feeding, toileting and settling babies to sleep.
6. Staff are required to undertake regular professional development. (ECA, 2001, online)

The draft Children’s Services Regulation (2002) discusses the possibility of implementing a strategy for improving quality –by increasing the ratio of adults to children in the birth to two age group from one adult: five children to one adult: four children. This is a commitment made to the field since the last regulations were made in 1996. Increasing staff-child ratios is articulated by many researchers as a sound pedagogical strategy to improve quality care and education. For example, The Early Years Study (McCain & Mustard, 1999); Children and Childcare: a longitudinal study of the relationship between developmental outcomes and use of non-parental care from birth to six years (Harrison & Ungerer, 1997); and the Cost Quality and
Outcomes Study 1995 (Peisner-Feinberg et al., 1999). Early Childhood Australia’s policy statement recommends one adult for every three children under two years of age (ECA, 2003, online). However, The NSW State Government has just announced that higher ratios will not be implemented in the “new” regulations, as “dire industry warnings that the cost of the changes would force an increase in fees and waiting list” (Totaro, 2004, p. 5). This statement articulates the tensions between providing quality education and care and the profit margins sought by corporate and for-profit settings.

The rapid expansion of children’s services requires the field to look carefully at the quality of care provided so that there is optimal opportunity for children’s development. In 1999, 40% of the 1.3 million children aged four years and under in Australia used formal services of some kind, compared with 28% in 1990 (ABS, 2000 in Fleer & Udy, 2002). This high proportion of families using children’s services stresses the need for the wider community to recognise that the quality of infant and toddler group care contributes towards the social capital of the community. This expansion is being paralleled in America, where there is recognition of the importance of high quality child care:

The Future of Children report explains that family day care homes or child care centres that feature small group sizes, high caregiver-child ratios, and qualified staff are linked to children’s healthy intellectual development. Conversely, extensive exposure to poor-quality care can undermine relationships between children and their caregivers at home. (Drummond et al., 2001, p. 1)

**What is quality infant-toddler care?**

There is considerable agreement (DoCS, 2002) in the field as to what constitutes quality group care. Quality child care is usually defined by two interrelated components: process quality and structural quality. Process quality refers to the interactions that occur in the child care environment and the child’s daily experiences.

Children in high quality care spend their child care hours in socially appropriate play with adults and peers, and they explore materials in ways that fit their age and developmental stage. (Helburn & Howes, 1996, p. 64)

Structural quality refers to objective aspects that are often regulated by government which allow for optimal conditions for process conditions to occur in the setting. For example, adult-child ratio, number of children cared for in a group, caregiver formal training (Helburn & Howes, 1996).

While the Commonwealth government contributes much of the funding in children’s services, the regulations that determine minimum quality are specified quite differently in states and territories throughout Australia. For example, the adult: child ratio for birth to two year olds in Western Australia and Queensland is one: four, compared with the rest of the states and territories which are one: five (Press & Hayes, 2000); throughout Australia, minimum admissible ‘trained’ staffing qualifications vary from a one year Child Care Certificate III from TAFE to a four year education university degree for pre-schools.
The national Quality Improvement and Accreditation System (NCAC, 2000) identifies ten areas of quality, each area being detailed by further principles. While there is some contention about the assumptions of quality indicators made in the Quality Improvement and Accreditation System (Goodfellow, 2001; Maloney & Barblett, 2002; Sims, 1999), it is also not clear as to what standard of quality is achieved when accreditation has been granted (Maloney & Barblett, 2002). Nationally, a ‘one-size-fits-all’ Quality Improvement and Accreditation System responds to a variety of minimum regulation standards across States and Territories. In discussing the effectiveness of Quality Improvement and Accreditation System Fleer (2000, p. 34) comments on the work of Jackson (1996, p.17), which reports “…accreditation assures high quality care but …work conditions had not changed …”

The NSW Curriculum Framework for Children’s Services. The practice of relationships articulates quality service provision as predominantly process quality by focusing on a ‘child-in-the-context-of relationships centred approach’ (DoCS, 2002, p.22). Modelled after New Zealand’s curriculum, Te Whariki, it is an important document for the field as it describes the complexities and depth of quality early childhood education.

If quality in infant-toddler care is able to be defined by the early childhood field, Wangmann (1995, p.49) asks then, “who should provide services?”. This is one of the most important questions for future directions for child care and education in Australia. How does the government legislate for the adequate provision of quality infant and toddler education and care? Who should provide the finances to provide these services?

What are the barriers to providing quality education for infants and toddlers?

Historically, infant-toddler care has been perceived as care rather than education:

That is a big change from the past when child care existed on the margins of society as a social service for families considered ‘broken’ or for the children who were ‘disadvantaged’, or as a cottage industry of largely unregulated homes and small centres (Greenman & Stonehouse, 1997 p. 3).

Wangmann (1995) and Fleer (2002) note that the care-education dichotomy continues to divide services into those that are seen as for education and those that are for ‘childminding’. This is still inherent today in the government’s funding structures and departments’ responsibilities when the NSW Department of Education and Training administers schools and child care is administered by the NSW Department of Community Services. The NSW DET is increasingly acknowledging the early childhood sector of education. In the NSW Public Schools Strategic Directions for 2002-2004 they commit to “Enrich children’s early educational experiences by extending early childhood programs” (NSW DET, 2002 online). Anecdotally from my experience as a university practicum mentor, there is a perception that these years are not valued as specialist and important in schools. An example is the comment recently made to me by an associate teacher about a student teacher – “She is only an early childhood studies student.” Within the university system, early childhood education is
often perceived as lower in status than primary education. This is evident in the smaller numbers of academics, the perception that field and research is less rigorous and relatively few early childhood professionals evident in higher positions. Coherent infant-toddler care provision will not be achieved until such time when social policy is developed so that there is an accurate understanding of quality child care and education.

Infant-toddler care is more expensive to provide than care for children aged three to five years. Infant-toddler care requires a high ratio of adults to meet minimum standards. For most children’s services, staffing costs are the major proportion of a budget, making it difficult to balance the increasing costs of high quality child care with keeping fees affordable for families. There is a tendency for some children's services to choose to employ low paid, untrained personnel to provide care rather than more qualified staff. This can all be permissible as it remains within the stipulated regulatory limits. Other care options (e.g., friends, relatives and family day care) are also often cheaper, as the real costs of providing care are not recognised. Many profit-oriented children’s services therefore do not find infant and toddler care economically attractive and so opt out of providing care for children under two or three years of age.

Parents are often left with little option but to accept lesser quality care when it is essential that a place for their child be found. However, sometimes, when parents do have a choice of child care options, parents are not supported in determining what quality child care actually looks like, sounds like and feels like, and so may be mislead by what appears to look good on a superficial inspection of the child care setting (Elliott & Wiley, 2000).

Contributing to the utilisation of infant-toddler care is the affordability of high quality service provision. The relationship between affordability, demand and supply is linked to families’ income and the Child Care Benefit they receive. In some cases, the high out-of-pocket expenses for infant-toddler care may have marginal financial advantage for the primary carer to pursue work outside the home (Wangmann, 1995).

It is important to recognise here, that infant and toddler education should not look like education might for children of other ages. Katz (1999, online) cautions teachers to establish carefully what should be learned and when it should be learned. “As for the learning environment, the younger the children are, the more informal it should be” (Katz, 1999, online). Group infant-toddler education should mirror good quality home environments- rich, stimulating and safe spaces; a sense of belonging for the child and the family; caring, adults who are flexible, attentive and in tune to the needs of each child (Greenman & Stonehouse, 1997).

Another barrier to the employment of qualified teachers in the broader long day care setting is employment conditions. Generally, the nature of caring for toddlers and infants is poorly paid because it is a female dominated occupation. The OECD Thematic Review (Press & Hayes, 2000) cites industrial issues such as: fragmented union representation for early childhood professionals; disparities between long day care, preschool and school teaching award wages (including leave entitlements); and discrepancies between giving similar teaching and administrative responsibilities to
workers with different qualifications and pay levels. The origins of early childhood education and care being charitable work also linger today. Still reflecting the “good person” image of early childhood professionals (Stonehouse, 1994), workers at all levels do a lot of unpaid work, as they view it as preferable to incurring fee rises to pay for the real costs of service provision. A culmination of these industrial issues cause stress in the workplace and consequently, the field experiences flow on effects such as low numbers of university enrolments, high staff turnover, and difficulties in recruiting staff, particularly for regional and rural areas.

Advocacy to improve working conditions also proves to be a barrier itself for the profession. Ebbeck and Waniganayake identify that “speaking out about the early childhood profession itself has been neither popular nor acceptable because it might be misinterpreted as being self-seeking and/or militant” (2003, p. 162). Professionals must consider that they have an ethical responsibility to be an advocate for the field—who else will take responsibility (Gibbs, 2003)? University undergraduate early childhood education courses must also continue to address the skills and attitude required to build strong advocates for the profession.

National consensus as to standardised minimum quality guidelines would develop a coherent strategy towards quality service provision. This could be achieved through the implementation of the National Agenda for Early Childhood as is currently being discussed by the Minister for Children and Youth Affairs (FACS, 2003). A National Agenda for Early Childhood would also develop a statement from which national early childhood policy could be drawn. It may also lead to some rationalization of the regulations across the states and territories of Australia.

**What are the pathways to providing quality education for infants and toddlers?**

From the author’s current knowledge and understanding, there are a number of positive pathways towards widely employing qualified teachers in infant-toddler settings. Initially, there is a need for the implementation of the National Agenda for Early Childhood by six Federal government departments which “suggests how a more consistent and coordinated approach “can be directed in early childhood education (FACS 2003, online). This agenda would enhance dialogue between policymakers and stakeholders and help to identify the issues for infant-toddler child care provision (e.g., an additional subsidy for more expensive care costs for infants and toddlers). It should recognize early childhood education as a priority research area, supporting the further development of a comprehensive research base for early childhood education with a concerted effort to focusing on the key issues of infant-toddler child care provision.

It is clear that the profession is moving beyond the guidelines set by policymakers to address the issue of improving quality in child care for themselves. There are services which are making small inroads into improving quality. Some services are increasing the ratio of adults to children. Some services are employing teachers for infants and toddlers. Perhaps one way forward is at the level of individual child care services taking their own initiative.
Due to the current shortage of early childhood educators, universities such as Charles Sturt University, Macquarie University and the University of New England have developed degrees specifically for TAFE qualified child care workers to upgrade to a teaching qualification for the birth to school age sector of the early childhood field.

The early years of a child’s life are increasingly being recognised by professionals as critical years of development. There is recognition of the importance of new evidence from neuroscience that

…the early years of development from conception to age six, particularly for the first three years, set the base for competence and coping skills that will effect learning, behavior and health throughout life
(McCain & Mustard, 1999, p. 5)

This evidence has challenged us to think about how the brain works. It places new, important emphasis on the interactions between adults and children and how they “directly effect the way the brain is wired” (McCain & Mustard, 1999, p. 5).

New initiatives that collaborate with the community to enhance opportunities for families to access high quality infant-toddler children’s services are required to strengthen the links between health, care, education and the family. The community-based publicly funded model has long been acknowledged (Functions Review of Child Care, 1991 in Wangmann, 1995) as the optimal model. However, Wangmann (1995) challenges the profession to acknowledge that there must be a diverse range of service provision to cater for the flexible and diverse needs of families. This diversity includes employer sponsored, private and community based service provision.

Conclusion

A commitment to high quality child care for birth to two year old will require more funds. Services can not provide high quality care with minimal staffing qualifications, minimal adults for care giving, minimal space and minimal resources. Regardless of the skill and ingenuity of staff and management, it cannot be done. “Improving child care at a societal level will require more financial support from somewhere, probably from everywhere: the public, employers, foundations and parents” (Greenman & Stonehouse, 1997 p. 7).

As a profession, early childhood educators must continue to advocate for quality care and education for infants and toddlers. Such advocacy should include: research to build a stronger knowledge base of the issues involved in providing quality care and education for infants and toddlers; encouraging the collegial membership of unions to create a more substantive body of delegates for which to represent the case for better working conditions; and becoming more politically active in the issues that affect stakeholders.

Of particular interest to the author as an educator in early childhood education courses, is what can be done within the university system to encourage university graduates to consider working with infants and toddlers. This is a complicated issue, as students’ perceptions are influenced by their experiences prior to enrolling at
university and while on their practicum in the field. This issue is one which requires further deliberation and study.

Margaret Mead’s famous quotation resonates at this time in the debate: “Never doubt that a small group of committed individuals can change the world. Indeed, it is the only thing that ever has” (UNICEF, 1989). Regardless of regulations not engaging in the move towards improving the quality of interactions in infant-toddler group care, it is essential that the profession continue to advocate for, and make changes, in practice.

References


Backward mapping and the big idea: Employing social constructionist theory in curriculum planning

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Omnipresent in educational discourse, constructivist learning theory is often misrepresented in the literature as a theory of instruction. Appearing as social or personal constructivism or a hybrid, underpinning it is a belief that learning manifests as the reorganisation of cognitive schemata. In recent years, there have been moves to rethink constructivist theory from a critical, realist-materialist perspective. The result has been the emergence of social constructionism. In this paper we argue that social constructionist theory is more useful as a theory to guide curriculum development. We cite evidence of our work with pre-service and practising teachers to support this argument.

Constructivist learning theory seems to be omnipresent in contemporary educational discourse. It appears as social or personal constructivism or in hybrid forms. It is often misrepresented in the literature as a theory of instruction. Underpinning constructivist theory is the belief that learning manifests as the reorganisation or elaboration of cognitive schemata. This building and rebuilding of mental maps of the world is argued to go on regardless of whether formal instruction is taking place or not. In fact, it could be argued that constructivist theory marks a moment of ‘pedagogical uncertainty’, or lack of confidence in the unproblematic transmission of ideas from one person to another. It suggests that our maps are built out of our own struggle in understanding the world, and are not simple replications of the maps of others. As teacher educators, we have observed that pre-service teachers in our courses, often interpret constructivist learning theory as supporting or advocating a form of ‘teacher-free’ or ‘do-it-yourself’ pedagogy.

Not long after constructivism became popular as a learning theory, psychologists concerned with the ‘idealism’ of constructivism, sought to rethink constructivist theory from what they described as a critical-realistic, and/or a pragmatic-materialist perspective, partly influenced by readings of Vygotsky (see for example, the essays in the pivotal volume by Nightingale & Cromby, 1999). The result has been the emergence of social constructionism. As a theory, it posits learning as the appropriation of social practices, or after Wittgenstein, ‘forms of life’ (Schwandt, 2003). Like constructivism, social constructionism is a theory of learning, or ‘knowledge production’, rather than teaching in the limited sense of cultural transmission. However, it is also a theory of subjectivity formation and inscription. When translated into classroom practice, it emphasizes embodied activity as both the process and purpose of learning. Thus, it is predicated on a notion that the results of learning are likely to be observable, without requiring tests of rarefied knowledge.
We notice an important congruence between the theory of social constructionism and the idea of backward mapping. Beginning with thinking about assessment, backward mapping, by virtue of its commitment to what achievement of the desired outcome will look like, invites a focus on the material aspect of learning. This is particularly true in teacher education, where the outcome of learning is not only knowledge, but a set of specialized practices. Consequently, we see backward mapping as a lever to rework curricula along more social constructionist lines.

In this paper we argue that social constructionist theory is more useful as a theory to guide curriculum development than the various forms of constructivism. To support our argument, we cite evidence of our work with pre-service and practising teachers.

Social constructionism versus constructivism

The terms constructivism, social constructivism, and social constructionism are not used consistently within the literature of the educational field. Nor do they have necessarily common meanings when used across disciplines. Thus, in the literature of philosophy, psychology and pedagogy, we see some slippage between terms, and sometimes radically different definitions. Thus, the definitional distinctions we set up between the terms ‘Social Constructionism’ and ‘Constructivism’ for this paper, are not meant to be adjudicational or exegetic. Instead, they serve a more pragmatic purpose, to distinguish between learning theory predicated on the reorganisation of cognitive knowledge domains, and learning theory that is focused on changes in embodied practices. Such a distinction is consistent with Holland and Cole’s (1995) articulation of the difference between psychological theories built on schema theory, and those expounding discourse as a framework for understanding human development and learning. We see the later not as oppositional to the former, but as subsuming it. That is to say, what we advocate is a non-dualist epistemology that considers pedagogy to be focused on changing social practices, not simply rarefied knowledges. Such an agenda is obviously not new, and was probably most strongly advocated by Dewey (1897). However, the need to attend to this distinction seems pressing, as we frequently encounter pre-service teachers in our programs who conflate various forms of constructivism with that particular kind of student-centred progressivism that seems to require, inaccurately or otherwise, the teacher to abdicate from an active role in the classroom.

The problem we see with ‘constructivism’ as a blanket term, is that it actually refers to a range of competing epistemologies, which have different practical implications (Prawat, 1996). When constructivism is advocated without differentiation, then it is easy for pre-service teachers to adopt pedagogical practices that at their extreme involve a ‘teacher-free’ approach to learning. This type of approach fails to guarantee the veracity of any knowledge that is ‘constructed’ by the student (Seixas, 1993), and may in-fact result in ‘a pedagogy of neglect’ by mistaking the idea that student’s will construct their own knowledge of the world despite what we do (a theory about learning), for a set of pedagogical instructions. This has been our motivating concern.

Certainly, ‘social constructivist’ pedagogies construct the role of the teacher as a scaffold of student learning, however the usage of this term slips between the idea
of learning as the reconstitution of cognitive schemata, to learning as changes in observable behaviour. Thus, we prefer the term ‘social constructionist’, as it necessarily places an emphasis on ‘construction’; not simply the changing of beliefs or ideas suggested by ‘constructivism’, but the appropriation of new practices alongside new ideas, suggested by the emphasis on observable ‘construction’ of material artefacts. It is this focus on material artefacts afforded by a social constructionist standpoint, that has suggested a relationship to backward mapping.

**Backward mapping and the big idea**

We have argued here that social constructionism as a theory of learning focuses on material products. In the classroom, the material objects are the assessment products that result from the teaching/learning experiences that the teacher sets up for the students. One of the major benefits of the outcome based education orthodoxy, and recent initiatives to develop Australian forms of ‘authentic pedagogy’, has been the recognition that assessment is a critical message system in education, and must align with the curriculum, and pedagogy message systems if learning is to be effective (Hayes, 2003). This is in contrast to external forms of assessment such as the Higher School Certificate and various standardised tests that position assessment as being separate from the teaching and learning process. Although we do not support the hyper-accountability that has accompanied the outcome based movement, we do support the move towards seeing assessment as being part of the teaching and learning process.

When assessment is realigned with curriculum and pedagogy there is a commensurate change in the planning process. Instead of asking the planning questions, *what to teach?* or *how to teach it?*, the teacher must also consider the question, *how do I know if the children have learnt anything?* Whilst this last question was always meant to be a part of the planning process, it was often considered only as a peripheral concern. We argue that this marginalisation of assessment was assisted by the initial prevarication of the NSW Board of Studies between an objectives based and outcomes based system. The initial focus on outcomes based education in syllabus documents published in the early 1990s (e.g. Science and Technology K-6, 1993) did not have has much impact as more recent moves to bolster the parent reporting process, such as student portfolios. The original K-6 Science and Technology curriculum document (1993) presents outcomes as little more than rephrased instructional objectives. This is evidenced by the appearance of specific outcomes for skills and values and attitudes with each sample unit of work. The revised outcomes and indicator document for Science and Technology K-6 (2000) gives clear precedence to content based outcomes that can be measured using assessment products. The old skills outcomes are subsumed under the three *learning processes* of investigating, designing and making and using technology. Reference is still made to values outcomes with this particularly banal statement:

Values and attitudes are an integral part of learning. The values and attitudes outcomes are different in nature from the stage outcomes. The values and attitudes outcomes are described separately on page 18 of this document. (NSW BOS, 2000 p. 9)
For the purposes of our argument, it is fascinating to see values and attitudes outcomes described as being “different in nature”. Furthermore, the publication of a new outcomes and indicators document, on its own, nine years on from the publication of the original complete syllabus clearly demonstrates the ascendancy of tangible, measurable outcomes over warm and fuzzy value statements in the last decade of the century. It is clearly much easier to construct an assessment product that demonstrates a content outcome than one that shows the achievement of a values and attitude outcome!

It is not our intention in this paper to denigrate values and attitudes outcomes in the school curriculum. It is our intention, however, to point out the practical benefits of working with more concrete outcomes in the development of curriculum. When the teacher has a clear object in mind for a sequence of lessons the planning process is a more focused operation. The practice of working back from the assessment product as the desired outcome to devise units of work has been described as backward mapping (Reid & Loughland, 2003). Backward mapping clearly places assessment as an equal partner to curriculum and pedagogy. In our work with practising and pre-service teachers we have observed the benefit of having a material object as the focus of planning. This in contrast to other modes of planning that we have taught and observed that are resource or process based and lead to inexplicit teaching. This is evidence for arguing for a constructionist rather than a constructivist theoretical base for teacher planning.

The major critique of outcomes based education is its inherent instrumentalism. We would argue the pragmatic line that backward mapping is the best response to a system obsessed by hyper-accountability. To us, there is a clear choice in opting for assessment products that come out of worthwhile learning experiences than the decontextualised judgments of standardised tests. Of course, backward mapping only works if the end product that is chosen is worthwhile.

In recent consultative work with the Australian Government Quality Teacher Programme (AGQTP), one of the authors worked with teachers in clarifying the end products of their K-6 Science and Technology units of work. This quest was termed, Looking for the Big Idea, from the QTP CD-Rom created to help teachers plan for K-6 Science and Technology (Commonwealth of Australia, 2003). Looking for the big idea is really an effort on the teacher’s part to translate the sometimes obscure language of outcomes and indicators into tangible assessment products. For example, the stage 3 outcome from the physical phenomena content strand is “PP S3.4 Identifies and applies processes involved in manipulating, using and changing the form of energy” (NSW BOS, 2000 p. 27). For most primary school teachers in NSW, most without any background in high school physics, this outcome would be one to be avoided at all cost! To be fair to the Board of Studies, sample indicators are also provided for teachers, “determines, records and reports on the conditions necessary for an electrical circuit to operate, eg light a bulb” (NSW BOS, 2000 p. 27). This indicator is probably the most common one chosen by Stage 3 (Years 5-6) teachers for their obligatory unit on electricity. It is most appealing as it is the most clearly stated out of all of ten indicators listed for this particular outcome. Other basic ideas in physics, like the separation of force and motion, are not indicated in the document.
To us, that is the big idea that should form the basis of planning for a unit focusing on achieving the PP S3.4 outcome.

In order to understand how the big idea of the separation of force from motion can be taught, teachers need to see how their stage 3 students will be able to apply the concept in a tangible assessment product. Now the process of backward mapping is set in train. The teachers need to ask themselves, what assessment milestones need to be demonstrated along the way in order to demonstrate that the students have accessed the big idea? For this outcome, it might be students demonstrating the forces involved in the motion of a wheeled conveyance, like a bicycle. As well, students might draw a detailed diagram of the forces and motion(s) evident in the equipment at their local playground. We argue that the material product of the assessment task provides a good guideline form which to plan purposeful teaching and learning activities. The big idea, or the science concept, is not enough for primary teachers to base their planning on. They need to have a concrete vision of where the unit is heading in the guise of a tangible assessment product. This is why we believe that the tenets of social constructionism provide a more useful heuristic for teacher educators working in teacher planning than constructivism.

**Social constructionism and pre-service teacher educators**

In our work with pre-service teachers, we have developed a number of ICT (Information Communication Technology) electives, built on the tenets of a social constructionist epistemology, and the pedagogical concept of backward mapping. For example, one of the subjects we both teach involves students learning to use a range of digital devices (scanners, cameras, video cameras) to enhance teaching and learning. Using the concept of backward mapping, we developed as an assessment task, the production of a digital video, and movie poster. These tasks provide students with the opportunity to demonstrate their achievement of the outcomes of the subject, that include competency with digital imaging devices and software. Backward mapping, our curriculum involved teaching students about the processes of film production (including storyboarding, script-writing, camera techniques, non-linear video editing, and ‘visual literacies’ based on the work of Kress and van Leeuwen, 1996), and multi-layered, multi-modal image editing. The production of the film and poster involved students working in cooperation with each other, learning the ‘tools’ of the culture of digital video production, and thus was underpinned by our social constructionist philosophy.

Another of our subjects entitled ‘Web Pedagogies’, involved a series of assessment tasks that would give students the opportunity to demonstrate their competency in web design, online publishing protocols, and what we have come to term ‘web pedagogy’, or the educational use of the internet (in a classroom where teacher and student are not separated by time or space). Given that this subject was to be made available to teachers in the field, as well as students enrolled in our pre-service teacher education programs, we began by considering what type of assessment items would not only demonstrate the outcomes we wanted students to achieve, but allow for the production of artefacts that demonstrate theoretically informed practice without resort to rarefied knowledge tests or ‘forms of life’ that are properly the products of different
‘communities of inquiry’ (Dewey, 1902), or ‘communities of practice’ (Lave & Wenger, 1991). Thus, in social constructionist fashion, we considered first the ‘typical’ practices of the community that we desired our students to demonstrate competency within.

The tasks that we finally settled on included the production of a topic hotlist, structured controversy online, a multi-page three level treasure hunt, and a full-blown webquest. Following recent research on quality teaching, the tasks the students create within each of their portfolio items must demonstrate a focus on intellectual quality, mechanisms for a supportive learning environment, and significance beyond the classroom. While the ‘topic hotlist’ and ‘webquest’ arise out of the work of Bernie Dodge (1995) at the University of San Diego, the ‘structured controversy online’, and ‘three level treasure hunt’ both represent an attempt to increase the intellectual quality, social support mechanisms, and significance of internet-based digital learning objects (DLOs), by modifying the less sophisticated ‘subject sampler’ and ‘knowledge hunt’ tasks advocated by other ‘web pedagogues’ (March, 1998). Each of the four assessment tasks combine to form a web pedagogies portfolio. Students move from the relatively simple topic hotlist, consisting of an annotated list of links to web resources on a topic of choice, to the production of more sophisticated websites demonstrating advanced navigation and page framing skills, as well as increasingly ‘rich’ forms of interactive pedagogy. The portfolio, as an assessment task, documents the pre-service teacher’s growing knowledge of both web design and web pedagogy (the ‘big ideas’ we wanted them to take away from the subject).

Deciding what tasks would make up the web pedagogies portfolio was not only the first step in our ‘backward mapping’ process, but subsequently dictated the curriculum that would need to be followed so that the students had the opportunity to be successful in completing each element of the portfolio. The social constructionist philosophy underpinning this process is evident in the tasks that were selected as part of the portfolio. They represent artefacts that might be produced – at some level of sophistication – by a teacher within a teaching-learning community (who had an interest in using the internet as a tool to foster intellectual quality). Thus, the items in the portfolio are in some sense ‘real world’ tasks. They are just as likely to emerge from a web-savvy teaching-learning community as they are from within a university pre-service teacher education course. Although in order to produce the items pre-service teachers will undoubtedly have had to alter their existing cognitive maps of their world, assimilating or accommodating new information, the main focus of these assessment items is the demonstration that the pre-service teacher’s ‘pedagogic practice’ has been enriched, or reconstructed. More importantly, this reshaping of social practice occurs not by long periods of didacticism, but by a pedagogy of construction within a socially supportive environment.

For this web pedagogies subject, we adopted a cyclic model, whereby periods of modelled, guided, independent, and troubleshooting activity characterised the instructional design. After seeing an ‘expert’ (lecturer) in the community of web pedagogues develop a topic hotlist, the students were guided to produce their own. They were then left to their own devices to complete the production of their portfolio item, with the inevitable result that problems would arise (they were using technology...
after all!). In a follow up session, any problems the students had had in developing their portfolio item were then addressed by the lecturer. The final product was then fine tuned before publication, and the cycle commenced once again. This instructional design process emphasizes the fact that learning is more than a cognitive activity in which our knowledge maps are changed (a social constructivist view), and highlights instead a conception of learning as a process of appropriating the practices of a particular community or social network (the social constructionist standpoint). When dealing with teacher education, which aims to produce teachers who don’t only ‘know’ what to do, but can actually ‘do’ something productive, informed by what they ‘know’, we find social constructionism a more useful framework for pedagogy and curriculum development.

**Conclusion**

In this paper we have argued that social constructionism is more useful as a theory to guide curriculum development than constructivism, because it allows the teacher to focus on what products are the typical ‘forms of life’ or ‘social practices’ of a given ‘community of practice’. This allows the teacher to consider what products might be used for assessment, that would give the best indication of the student’s competency in the typical practices of the community in question. Backward mapping from the selected assessment item, the teacher is then able to construct an appropriate curriculum that will scaffold, or support students in being developing the competencies and understandings they need to successfully produce the desired assessment item. This process aligns backward mapping with a social constructionist logic, that is concerned with students’ ability to appropriate a given set of practices, rather than simply acquire an intellectual understanding of those practices without necessarily being able to demonstrate them. Obviously, the combination of backward mapping and social constructionism has been useful in addressing the issues we have faced when teaching pre-service educators the knowledge and skills involved in using effectively, information communication technologies within the classroom. However, we believe that this approach will also be effective for the appropriation of other social practices required of a competent teacher. Thus, we have tried to demonstrate that by emphasising ‘construction’ of real world products over the reorganisation of schemata, the adoption of backward mapping and a social constructionist epistemology, makes curriculum planning more effective in teacher education courses.

**References**


How lists of teacher attributes address emotional skills for healthy teacher professionals

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Emotional intelligence (EI) appears an attractive construct for viewing psychological health of teacher professionals and their resilience in managing complex relationships. Although issues of teacher stress and coping can be linked to emotional competencies, research on the development of these competencies in teachers is in its infancy. A survey of undergraduate teacher education students examined a measure of emotional competencies. However, factor analysis did not support proposed EI subscales. This paper considers, through list content analysis and comparison, how emotional competencies are embedded within current listings of attributes of effective teacher graduates. Future teacher education needs to consider emotional competencies.

In building psychological health for teacher professionals and in increasing teacher resilience in managing complex relationships, the broad notion of emotional intelligence (EI) appears attractive. The companion notion of EI trainability has been applied in business settings and, in education, to student performance (Zeidner, Matthews, Roberts & McCann, 2003). Although issues of teacher stress and coping have been linked in various ways to emotional competencies (Manuel, 2003; Richardson & Shupe, 2003; Zembylas, 2004), research on the development of these competencies in teachers is in its infancy. However, various lists of attributes of effective teachers have set standards for professional practice and, in various ways, have shown some recognition of the relevance of personal skills among healthy attributes.

Lists with different sources, languages, and purposes have played a role in current efforts to reconceptualise a 4-year undergraduate program. Program reviewers, however, can encounter great difficulties in reconciling multiple list perspectives and reaching consensus on a path to redesign that includes personal skills among healthy attributes. In education and other professions, a list of quality practice indicators is a basic tool that can be used to drive the process of defining and describing, measuring and auditing, and changing and implementing practice (American Psychological Association, 2002). A list may address either macroprofessional issues of accountability, accreditation, and registration or microprofessional issues of reflection on practice, program reform, and path to implementation. When more than one list provides sets of descriptive statements about teacher attributes, then the task of deconstructing lists into their key constituent features and of determining how to incorporate new emotional attributes makes an important contribution to conducting a coherent and sustainable reform process.
Undergraduate program innovation in teacher education

University curriculum programs for teachers have, though cycles of review and reform, progressively incorporated advances in educational research. Each new graduate of a program then contributes new capacities to advance educational reform and school effectiveness. Academic innovations across the curriculum have been the focus of teacher education in recent times. However, future teacher graduates must be able to build social competencies in the classroom and prevent difficult social relationships from interfering with student learning (Perry, Ball & Stacey, 2004). Future teacher graduates also need to participate as social contributors to sustainable improvement and capacity building across their educational system. These teachers will need psychoeducational skills that address the major socioemotional challenges to learning effectiveness in our public school system (Antidote, 2003; Elias, Arnold & Hussey, 2003; Greenberg et al., 2003).

Elias, Zins, Graczyk, and Weissberg (2003) have argued that social-emotional competencies must be nurtured in teachers, because “human operators” are critical to psychoeducational innovations in practice. In order to implement successful research-based reforms in practice, Elias, Zins, et al. (2003) identified four areas for change: attributes of the teachers who must carry out planned reforms, difficulties in management of resources and time, continuation of narrow and decontextualised teaching traditions, and persistent structural weaknesses in educational settings. Review of preservice training and preparation of teachers and their ongoing support in school systems needs to help teachers “develop the necessary attitudes and skills to carry out their responsibilities successfully” (Elias, Zins, et al., 2003, p. 314).

Emergent needs of contemporary teacher professionals must be accommodated in program redesign of university teacher education. The process of educational research into program effectiveness should be reflective, investigatory, and developmental (Evans, 2002). More often, program redesign resembles an intuitive, experiential, and self-indulgent process to which different participants bring competing ideas (Winch, 2002). Fashions that achieve dominance in one review are replaced in the next: One design team biases the program their way, and the next design team does it some other way. A primary program at Griffith University is currently under review. This program already prepares competent teacher professionals who are valued in the Queensland educational industry across various indicators (e.g., employability and career satisfaction). However, the team of reviewers has discovered that reviewing is a complex process, because the profession, the industry, the university, and the research literature provide many perspectives on the attributes of a healthy teacher graduate.

Multiple lists of teacher attributes

The importance of personal skills has been recognised across professional, industrial, academic, and scientific perspectives on teacher performance in Queensland. These types of lists articulate a desire to address issues of personal effectiveness as a critical contributor to life and career success over and above graduate status and professional registration. These lists have evolved generally through consultation with a range of
educationalists, and sometimes with wider stakeholders, and then periodically through general review processes. However, these lists are descriptive and lack validation. Given the emerging tendency to make personal attributes an issue in teacher practice, these lists need to be tested against current views of emotion as a relationship construct and of emotional development as a biopsychological system. Table 1 provides summary listings of four kinds of lists of teacher attributes, with the first two columns focused on standards of teacher practice and the second two columns focused on undergraduate skill development.

<table>
<thead>
<tr>
<th>BTR Standards</th>
<th>EQ Standards</th>
<th>Griffith University Domains of Capability</th>
<th>Emotional Competence Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduates will possess and be able to apply professional and disciplinary knowledge bases.</td>
<td>Structure flexible and innovative learning experiences for individuals and groups.</td>
<td>Learning and adaptability Problem solving</td>
<td>Self-awareness</td>
</tr>
<tr>
<td>Graduates will possess and be able to apply a range of literacies relevant to their professional roles.</td>
<td>Contribute to language, literacy and numeracy development. Integrate information and communication technologies to enhance student learning. Assess and report on student learning.</td>
<td>Written communication Oral communication Information literacy Interpersonal skills Self-management Personal effectiveness</td>
<td>Self-assurance Self-awareness</td>
</tr>
<tr>
<td>Graduates will exhibit the skills to create supportive and intellectually challenging learning environments to engage all learners.</td>
<td>Create safe and supportive learning environments. Construct intellectually challenging learning experiences. Construct inclusive and participatory learning experiences. Support the social development and participation of young people.</td>
<td>Learning and adaptability Problem solving Conceptual and analytical skill</td>
<td>Flexibility</td>
</tr>
<tr>
<td>Graduates will understand and participate in relationships that characterise ethical professional practice within and beyond learning communities.</td>
<td>Construct relevant learning experiences that connect with the world beyond school. Build relationships with the wider community. Contribute to professional teams.</td>
<td>Community and citizenship Career and vocational Organisational membership Team and group skills</td>
<td>Authenticity</td>
</tr>
<tr>
<td>Graduates will be committed to reflective practice and ongoing professional renewal.</td>
<td>Commit to professional practice.</td>
<td>Professional effectiveness Self-management Personal effectiveness</td>
<td>Self-regulation Personal Insight Accountability</td>
</tr>
</tbody>
</table>

The professional standards specified by the Board of Teacher Registration (BTR) in Queensland in August 2002 require personal skills to be able to provide support for learning and to participate in ethical relationships, in addition to professional disciplinary requirements and academic requirements. This list (see summary in Table 1, column 1) was primarily designed to assist universities engaged in teacher education by defining attributes considered necessary for effective beginning teachers. The Board reviewed their guidelines and consulted widely to ensure an “innovative and flexible approach.” This recent updating to reflect emerging trends and issues in
education, for example, raised the profile of teacher technological competence among its multiliteracies but did not specifically address emotional literacies (Antidote, 2003). This list is used as an integral component in guiding the program consultation and acceptance process of teacher education programs. It also purports to provide a model for attempts to develop national teacher education guidelines, for credentialing, certification, and professional development.

Education Queensland (EQ), the major employer of teachers in Queensland, has also developed professional standards for teachers that provide guidelines for professional practice. According to this industry sector, these generic standards (see summary in Table 1, column 2) provide definition and reference for the work of teachers in achieving future education planning outcomes. They also provide a platform for reflection on professional practice and showcase professional skills and priorities within a framework aligned to key systemic initiatives of EQ. In partnership with the Queensland Teachers Union, EQ recognised the need to ensure that these standards accurately reflect the current knowledge, skills, and abilities of effective teachers in Queensland. A pilot study (Mayer, Mitchell, MacDonald, Land & Luke, 2003) used a multimethod approach to investigate and report on the capacity of the standards to encourage reflection on more contemporary and responsive teaching practices. Although these professional standards were affirmed and were perceived to provide an authentic framework for reflection of teacher practices, it would seem that specific standards were not actively challenged as part of this process.

Tertiary education bodies and scientific researchers have also developed lists of standard skills for potential incorporation into program design. At Griffith University, a generic skills model has been articulated for teachers and for all other tertiary students (see summary in Table 1, column 3). These generic skills include the development of personal as well as academic and related professional skills. The capacity to function more effectively, flexibly, and adaptively over time in a changing environment has defined this university’s approach. Graduate characteristics include personal skills such as interpersonal skills, team and group skills, and self-management, in addition to academically focused skills in oral and written communication, conceptual and analytical skills, problem solving, and information literacy. Initially, a tiered hierarchy of skills, the Resource Pyramid of “building blocks” to personal and professional effectiveness, was constructed to provide a visual representation of the development of skills within the person (bottom level), skills in acting upon the environment (second level), and skills in working within societal systems (third level) that contributed to the personal and professional effectiveness of the Griffith graduate.

In university audits of generic skill development in 2000 and 2003, however, the generic skills were operationalised as a wider range of specific attributes (Crebert, Patrick, Ingram, Davies & Parker, 2003; Crebert, Peach, Miller, van Haering, Bakharia & Abbott, 2000). Audit results, moreover, indicated an ongoing emphasis on academic skills such as written communication, problem solving, and critical evaluation. That is, the results showed that academic skills were well embedded in programs (i.e., 50-70%). Embedding criteria involved priority in the program, use in teaching, practice opportunities, and assessment. Between the 2000 and 2003 audits of
university programs including teacher education, upwards revisions were observed in some specific personal attributes, such as leadership, ethics, and lifelong learning, and teamwork increased from 30% to 50% in all programs. However, it was found that development of personal generic skills over the course of an academic program was not well documented. These results suggested that these skills were an administrative requirement of the university rather than an integral part of tertiary teaching and learning practice.

In a further extension of the generic skills project, it was argued that students could use a “capability profile” as a self-awareness tool to improve their study skills and future graduate employability. A survey of self-assessed strengths and weakness was constructed with separate scales derived from the original 14 building blocks in the Griffith Graduate pyramid of generic skills. It was posted to the university website (http://www.gu.edu.au/centre/gihe/griffith_graduate/). Use of this survey by students of psychology, management, and environmental engineering indicated that, after self-assessment of a skill, students were motivated to develop the skill when they could frame skill relevance in terms of self-identity and employment (Lizzio & Wilson, 2004). Development of these skill capacities appears to rely on self-regulation and self-responsibility, two central emotional competencies.

Several lists of aspects of emotional intelligence have been constructed from various theories of self-skills and relationship skills. A widely acceptable definition of emotional intelligence (EI) is that it is “the ability to monitor one’s own and others’ emotions, to discriminate among them and to use the information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p. 189). Goleman (1998) defined an emotional competence as a “learned capability based on emotional intelligence that results in outstanding performance at work” (p. 24). Goleman (2001) proposed that competencies associated with EI relate to the ability to recognise emotion and regulate emotion in self and others. A definition that integrates the work of Goleman (1995, 1998) and Boyatzis (1982) is that EI is observed when a person demonstrates the competencies that constitute self-awareness, self-management, social awareness, and social skills at appropriate times and ways in sufficient frequency to be effective in the situation.

This range of interpersonal skills and competencies seems to be essential for teachers to manage the broad range of professional roles and responsibilities, and self-management skills seem to be essential to cope with these demands. Teacher educators, therefore, need to better understand the development of these intrapersonal (self-management and self-regulation) and interpersonal (other-management and other-regulation) skills before, during, and after the process of completing an undergraduate course of study. Negotiation and cross-validation of the meaning and integration of these four types of lists from the teacher registration sector, employment sector, university sector, and scientific sector is a focus for design of teacher education programs.
Methodology

This study provided a content analysis of items in each of the four lists (see Table 2). The analyses sought to clarify list descriptors. The four lists were prepared for text analysis by the software package, Leximancer (Smith, 2002), which generates a nonselective exploration of samples of text. Leximancer computes the frequency with which each term is used, after discarding text items of no research relevance (such as “a” and “the”), and then computes the distance between each of the terms via computations equivalent to nonparametric factor analytic or cluster analytic procedures. As with other factor analytic procedures, there is no single solution, and the quality of particular solutions are judged in terms of their interpretability. The results of computations are displayed in two-dimensional spatial representation that can be explored through rotation to optimise the arrangement of terms and to explore the family of associations with any one term. The clusters of terms in each of the four quadrants can be interpreted as forming patterns of associations. The clusters derived from analysis of each list were then compared for evidence of interconnectness of attributes.

Table 2. A comparison of content analyses of attributes of teacher education students

<table>
<thead>
<tr>
<th>Professional</th>
<th>Industrial</th>
<th>Academic</th>
<th>Scientific</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTR Standards</td>
<td>EQ Standards</td>
<td>Griffith University Domains of Capability</td>
<td>Emotional Competence Inventory</td>
</tr>
<tr>
<td>Teachers and learning</td>
<td>Standards and requirements of graduates</td>
<td>Understanding ways and groups; and understand people and disciplines</td>
<td>Relationships and values related to competent behaviour and to feelings and emotions</td>
</tr>
<tr>
<td>Level of proficiency</td>
<td>Analyse and formulate learning</td>
<td>Confidence in understanding and identifying a range of information</td>
<td>Identifying feelings and emotions</td>
</tr>
<tr>
<td>Teacher environment</td>
<td>Make life connections with the world</td>
<td>Understand people, ideas, trends, and issues</td>
<td>Emotional based Authenticity</td>
</tr>
<tr>
<td>Design context</td>
<td>Design and construct the environment that meets student requirements</td>
<td>Understand ways or approaches, discipline, and work implications.</td>
<td>Acting and behaviour in relationships</td>
</tr>
<tr>
<td>Graduates learning to be teachers</td>
<td>Solve problems; have opinions</td>
<td>Professional evaluation; and Understanding work groups and situations</td>
<td>Capable with values and relationships</td>
</tr>
</tbody>
</table>

*Note.* Font variations show major dimensions identified from content analyses of each of the four lists in italics and specific constructs from the content analysis in bold.

With respect to emotional skills, this study also reported some data on the instrument measuring emotional competencies that was content-analysed. A survey of undergraduate primary teacher education students (n = 109) examined the factor structure of a 43-item measure of emotional competencies based on two intrapersonal dimensions of the Goleman and Boyatzis model of emotional intelligence (Dann, 2001). The two proposed subscales purported to measure self-awareness (with three sets of items dealing with emotional self-recognition, personal insight, and self-
assurance) and self-control (with four sets of items on emotional self-management, authenticity, accountability, and flexibility). Factor analysis by principal axes addressed three issues about the nature of the content of this inventory: Was the matrix of inventory items able to produce a factor structure; Was the resulting structure simple with multiple single-factor item loadings; and Was it possible to interpret the factors in a meaningful way?

Data and analysis

Table 2 presents summaries of the organising terms within each of the four quadrants for each of the four lists. Although it was possible to “line up” each of the four quadrants to represent similar constructs, variations between the content of each list required some forcing to obtain a matching of clusters across lists to achieve comparability.

Factor analysis of the Emotional Competence Inventory showed that the matrix of items was factorable after 26 items were removed for positive skew and factor overlap over several iterations. The resulting factor structure was simple, with two or more items loading onto seven factors with eigenvalues greater than 1.0. The factor structure could be said to be interpretable, but, for five of the seven factors, the 16 items with strong loadings on these factors did not derive from item sets as described by Dann (2001). Therefore, construction of emotional competencies scales also needs validation to ensure that the proposed nature of individual differences is justified.

Research outcomes

The first observation from these finding is the “fit” between these descriptive lists. The organising characteristics of the lists reflect their different origins. For example, a professional focus on teaching and learning becomes industry focus on “real-life world”; an academic focus on understanding persons and professions becomes a scientific focus on relationships. The results indicate that such listings are primitive and fuzzy conceptualisations that need further scientific investigation. The teacher education review process, however, tends to rely on these lists to ensure registration and employability.

The factor data on the Emotional Competencies Inventory shows that the apparent face validity of sets of attributes must be tested (see Perry, et al., 2004), because the actual patterns of individual differences may have different meanings from those proposed. Further investigation of different inventories, and how they apply to students in teacher education programs and to best practice guidelines for teachers’ emotional competencies, also needs to take place.

Conclusion: Implications for further research

The construction of a viable measure of interpersonal and intrapersonal competencies for the professional training of teachers will have implications for measuring the development of teacher education students as they move through their undergraduate program. Although multiliteracies are identified across lists of attributes in curriculum
development, there seems to be a need to include emotional literacies within this concept. More generally, there is an argument for including emotional competencies in undergraduate teacher education programs to ensure substantive weighting of the development of these competencies compared with curricular and professional competencies. In this event, reviews and further design of teacher education programs may need to actively consider how to provide learning opportunities to raise awareness of emotional competencies and deficits as part of healthy attributes in practice listings and how to train teacher education students to develop emotional competencies in line with a more clearly defined and integrated set of professional skills, university attributes, and teacher registration goals.

References


Liberating from literalness: Making space for meaningful forms of abstraction

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There is a need for some alternative approaches to the way that undergraduate teacher education programs have traditionally been delivered. Our warrant for this assertion is derived, in the first instance, from the work of Aronowitz and Giroux who have argued that there are many different signs of a crisis of cognition within all levels of education. Twenty years later the conditions that they described seem even more entrenched. This paper argues for a fresh inquiry into the deeper logics of learning and teaching, by drawing primarily on the work of James, Dewey, Kierkegaard, Britzman and Mackay. There is also a brief inclusion of anecdotes from some initial applications of these theories into our own practice.

Writing in the mid 1980s Aronowitz and Giroux (1985) described the issue of conceptual illiteracy in education. They asserted that “Students of all social classes exhibit a tendency towards literalness, that is, seem unable to penetrate beyond the surfaces of things to reach down to those aspects of the object that may not be visible to the senses” and “the problem of abstraction becomes a major barrier to analysis because students seem enslaved to the concrete”.

In this paper we accept, in principle, the assertions made by Aronowitz and Giroux. In particular we support their concern about surface level thinking. Our primary motivation is to follow their lead in order to better understand how and why such thinking occurs and consider the implications for teacher education.

Before proceeding further we need to offer a caveat. We do not believe that such cognitive characteristics are an inbuilt feature of childhood or certain forms of youth. In other words we want to avoid any association to a fundamentalist reading of Piaget that suggests abstract thinking is a marker of cognitive maturity while concrete, surface thinking is a symbol of immaturity or retarded development.

Our interest, as teacher educators, is in better understanding the psycho/social dynamic played out in classrooms and that actively promotes literalness. Stated this way we assume that the dominant processes of schooling and training are innately conservative in the sense of promoting the status quo rather than change. In particular we believe that the pedagogic pre occupation with demonstrable behaviour and tangible outcomes, constrains cognition and restricts the development of alternative ways of knowing. Here we draw on Britzman’s (2003a) work when she observes;

Can educators face the same sort of choice, between the empirical child made from the science of observation, behaviorism and experimental and cognitive psychology and the libidinal child who dreams yet still desires knowledge? The field’s dominant tendency is to choose the empirical child over the dream, the child the adult can know and control.
But in doing so, education has reduced the child to a trope of developmental stages, cognitive needs, multiple intelligence and behavioral objectives. And these wishes defend against a primary anxiety of adults: what if the dream of learning is other to the structures of education? (Britzman, 2003a, p. 53).

This statement is useful for two reasons. Firstly these themes resonate with Aronowitz and Giroux’s concerns about surface appearances and preoccupations. Secondly, by naming these matters as empirical processes, and linking them with pedagogic and curriculum developments, Britzman implicates wider educational issues. More specifically she begins to move our attention on to wider issues within the cultural politics of parenting, teaching and policy making. Understood as a single intellectual project, Britzman’s studies clearly places teacher education within the frame of critical analysis.

Taking a cue from Britzman we understand that if fresh insights about these accumulated experiences of schooling are to be developed, student teachers need to undertake a process of emotional and intellectual detachment. That is, for genuine change and growth to occur a sustained period of tension and challenge is required. If this does not happen, the everyday practices of lectures and tutorials, organized in traditional pedagogic patterns, act to reinforce entrenched knowledge and habituated practices with regard to teaching and learning. Accordingly we have designed experiences that facilitate dissonance and emotional and cognitive disturbance.

Our primary warrant for this approach is what we understand to be an urgent need for new forms of teacher education in a post September 11 world. Within such a context of increasingly complex global interaction, defined by violence and mistrust of difference, many former assumptions about education no longer hold. Parochial and ethnocentric curricula that promote separation and elitist outcomes are designed to create social division and competition. What is needed are new social and cultural practices designed to facilitate acceptance of difference and diversity and a capacity to find common ground. Here we employ, and reverse, an idea by Britzman (2003a) when she explores understanding the self through the learning of the other (p. 168). The aim of our work is a process of learning about the other through an understanding of the self. In the following sections of this paper we outline why we believe this approach is useful for moving beyond conceptual literalness and thus the perpetuation and reproduction of traditional pedagogic relations and practices.

**Sensing, perceiving, conceptualizing and abstracting**

According to William James, when a learner comes to understand an experience, that is, to make personal meaning from the encounter, there are three moments in the process – sensation, perception and conception. Stimuli or facts are initially sensed in one’s stream of consciousness. These initial sensations are not considered to contribute to any knowledge directly but provide the opportunity for one’s relation to them to be perceived. James’ perception refers to the learner’s recognition of an observed stimuli based upon one’s knowledge about the observed fact or stimulus. The level of knowledge about the fact is not very deep but is a simple recognition of one’s acquaintance with it. This is made possible by the third moment – conceptions – that one has arranged to understand the world the way it is. All three of these
moments are on a continuum and represent an increasing awareness of relations (James, 1890/1950, pp. 258-9) and so are not mutually exclusive of each other.

The role of concepts enable the individual to be more effectively engaged in the experiences of perceptions by developing an intention “to think of the same” (James, 1890/1950, p. 459). This is described by Dewey (1933/91, p. 128) as “an attitude of anticipation” where experiences are given meaning from an already existing unity of conceptualising or understanding of the world. This disposition to look for sameness led Dewey (1920/88, p. 83) to conclude that individuals “are governed by memory rather than thought”. Individuals who perceive entities in the environment make a claim (usually quite subconsciously) of knowledge about them based upon previous meanings given to similar experiences. It is only through concepts that meanings are able to be given to the ‘flow of life’. As Stevens (1974, p. 22) argues, “Without the pragmatic tool of conceptualization, it would be impossible to master the concreteness and fluidity of the world of perception.” The disposition to readily apply sameness is understood to be quite passive, with little active or abstract thinking being required.

It was claimed by Dewey that what is perceived then are not particular events or existences, but rather meanings. He argued (Dewey, 1933/91, p. 117) that all knowing “aims to grasp the meaning of objects and events” and that often these meanings originate from the already existing meanings deposited from prior experiences. As these meanings originate in one’s existing beliefs, thinking terminates, because stable meanings can be readily applied to the object presently being perceived. Therefore, to become educated and develop new beliefs or reconfigure current beliefs, Dewey argued that educative learning should not be the learning of things, but rather should be “the meanings of things” (Dewey, 1933/91, p. 176).

Dewey (1916/85, p 82) presents his technical definition of education as “that reconstruction or reorganization of experience which adds to the meaning of experience”. Elsewhere he argued that education is “a process of the renewal of the meanings of experience” (Dewey, 1933/91, p. 331). Central to this process of educative personal meaning-making was the method of thinking, a term which he often conflated with reflection, abstraction and philosophical thinking in particular. Dewey attacked the common maxim of his day for teachers to proceed from the concrete to the abstract. This was for two reasons. Firstly, any introduction of the concrete where abstract thinking was not encouraged cannot be educative. Such a procedure of presenting sense-perceptions without judgments opposes the educational process. Secondly, such an approach deludes the learner into assuming that the meaning of the object is in the object itself rather than in one’s relation with it.

In order to foster educative thinking that involves first-hand meaning-making, a certain distance is required from the immediate sensation in order to combine the abstract with the concrete. Dewey argued that it is mythical to assume that meanings are in the sensory experience alone. He argued that abstractive thought is indispensable if the meanings of experiences are to be reconstructed and applied to direct other experiences. Abstraction is considered a close kin to generalisation, and both require an adventure likened to “a leap from the known” into “the dark” (Dewey, 1916/85, p. 165; 1920/88, p. 166, emphasis added). Such an adventure is one that is
dynamic, and while full of possibilities has to also endure uncertainties. Dewey (1933/91, p. 13) argues that “Reflective thinking is always more or less troublesome because it involves overcoming the inertia that inclines one to accept suggestions at their face value: it involves willingness to endure a condition of mental unrest and disturbance.”

Abstract thinking has been described by Dewey as laborious and painful yet he maintained that its educative value is priceless because significant thought and a more worthwhile way of being is attained rather than the simple accumulation of superficial information. In order to transcend an impersonal relevance of a sensory meaning to something more significant, there needs to be a deeper engagement with the personal purpose present in making meaning. According to Dewey (1933/91, p. 198; 1920/88, p. 120), all thinking “contains a phase of originality” as the meanings of experiences are reshaped according to purposes. For a development or change of meaning to be educative, there is required a change in the quality of the learner’s mental disposition. Here existing concepts, which tend to give immediate meanings to sensory experiences, are themselves able to come under examination.

The traditional approach to education which Dewey opposed and which we argue is still the dominant approach today, is fostered via an Aristotelian type curriculum – one that is premised upon the notion “that only that which was already known could be learned” (Dewey, 1920/88, p. 97). Learning is reduced to the sensation and perception of the literal. The methods of such a type of curriculum involve demonstration, argumentation, proof and even persuasion, designed to conquer the minds of learners. Learning in such an environment, according to Dewey (1933/91, p. 149), requires the intellectual virtues of passivity, docility and acquiescence. Pedagogical theory, according to Dewey (1916/85, pp. 176-9, 318), is brought into great disrepute if teacher educators attempt to hand out to teachers methods and models which are to be followed like recipes. Dewey went to great length to argue for an existential engagement that is required for significant learning. This is because persons base their actions upon their beliefs and so Dewey argued for the formation of intelligent personal beliefs rather than any accumulation of objective knowledge. He claimed that the world of thinking is inextricably interconnected with the existential character of the being who does the thinking. He (Dewey, 1929/58, p. 69) characterised this world of thinking as involving “uncertainty, ambiguity, alternatives, inquiring, search, selection [and] experimental reshaping of external conditions.”

However the conceptions (and therefore prejudices) that one already has, do not readily lend themselves to being examined because they are so familiar to the individual. Dewey therefore suggests that a shock be introduced; an unexpected sensation, designed to enable one’s attention to become alert and stretched. His justification for such an approach was that

[sensations] are stimuli to reflection and inference. As interruptions, they raise questions: What does this shock mean? What is happening? What is the matter? How is my relation to the environment disturbed? What should be done about it? How shall I alter my course of action to meet the change that has taken place in the surroundings? How shall I readjust my behavior in response? (Dewey, 1920/88, p. 131)
When the mind is engaged with a genuine perplexity, reflective inquiry is able to engage with confusion, doubt and uncertainty and explore various options, alternatives and possibilities. This is the essence of Dewey’s educative experience, where learning and crisis are understood to be interrelated.

In order for an experience to be educative, it must enable the learner to be liberated from being enslaved to attempting to acquire objective meanings located within sensory experiences alone. A critical distance allows learners to delay making judgments of meaning based solely upon immediate inclinations to perceive *sameness*. Abstraction allows one to break free from the particular and concrete in order to pursue other meanings in experiences. In order to promote the making of personally significant meanings in teacher education, the teacher educator cannot communicate pedagogical theory directly to the learners. This is why Dewey (1916/85, p. 23) claimed that “we never educate directly, but indirectly”.

The existentialist Søren Kierkegaard is one of the modern masters of indirect communication. While he is identified as a Christian writer, his means of indirect communication has been valued by some educators who see the value in his pedagogical style with educating beliefs more generally. Kierkegaard (1848/1998, p. 43) maintained that people in general are governed by illusions rather than by truth. He (Kierkegaard, 1848/1998, p. 43) claimed that “No illusion can never be removed directly, and basically only indirectly…. One who is under an illusion must be approached from behind.” He advised his readers not to be deceived by the word deceive. While it is often assumed that individuals can be deceived from a truth to an untruth, he argued that it could also occur that an individual can be approached indirectly from behind and be deceived into a truth from an untruth.

According to Kierkegaard, anxiety is experienced at the interface between the actual (literal, concrete and particular) and the possible (abstracted). It is argued here that there is educative value in provoking a certain level of anxiety in learners in order to enable them to participate more actively in significant meaning-making. Anxiety should not be viewed negatively. It needs to be understood as a healthy way of being – of having one’s horizons of understanding open to possibilities.

For educative change to be possible there is a movement from the actual present to the possible. In order for possibility to be an option, there needs to be plurality and multiplicity. Dewey suggested that from such a variety must come opposition and strife. He (Dewey, 1920/88, p. 141-2) argued that “Change is alteration, or ‘othering’ and this means diversity. Diversity means division, and division means two sides and their conflict. The world which is transient must be a world of discord, for in lacking stability it lacks the government of unity”. The implication for the teacher educator then, is to avoid representing a curriculum of unity and to rather replace it with one than consists in part of conflict. Consequently we argue that there should be an adoption of Britzman's identification of the individual student-teacher as a site of dilemma and struggle, and provide for the possibility of educative change through anxiety and doubt.
Experiencing existential anxiety encourages a break from the tendency towards literalness as learners are thrown back upon themselves and become individualised. This individualisation is not a form of individualism, but is an enablement for individuals to become more fully and actively inter connected with others. It also brings to attention that meanings emerge from one’s personal conceptualizations and are not attributes of objective entities. Such awareness allows one’s understandings to be loosened from any grip of dogmatism to a more negotiable position that is always open for further abstraction and re-evaluation.

**Crocodile moments**

In 2004 the teaching team for the first year unit, Perspectives on Learning, EDF 1301, embarked on a graduated series of pedagogic interventions designed to facilitate students’ emotional and intellectual detachment from their habituated perspectives about learning. These interventions have come to be referred to as crocodile moments with reference to a story introduced in week two, involving a crocodile attack. These pedagogic interventions were designed to enable students to establish some distance from immediate meanings in order to examine and re-evaluate them by abstracting other possible conceptualisations. The following section of this paper outlines the different strategies that have been used.

The first pedagogic principle introduced in EDF 1301 was the use of selected movie scenes that dramatised different educational issues. A scene from *Dead Poets’ Society* was selected in order to facilitate a range of responses to a scene where a teacher challenges student passivity and their acceptance of the authority of a literary expert. In this scene the teacher, instructs the students to tear out the pages of their central text book and in so doing he asks his students to trust him and his judgement about the literary worth of the text. On the surface this strategy appears to be a radical intervention. On the other hand it can be understood as deeply conservative whereby all independent thought and action is subverted in the process of total trust given to a charismatic leader.

Following the screening of this scene the students were invited to answer the following questions: what is appealing/inviting about this scene?; how did you feel about it?; what is challenging and or confronting about the scene?; what do you think about this scene?; what is contradictory about the issues presented?; what are your reactions to this scene telling you about your own thinking?

In the second week of classes the students were read a short story titled *HOW IT FEELS . . . To be taken by a croc* (Hamer, 2004). The story is about Val Plumwood who is attacked by a crocodile, taken on three death rolls, almost killed and, with the help of a park ranger, lives to tell about this chain of events. This near death experience turns out to be a life turning point in which many former assumptions about such issues as the meaning of life, death and ideas about food and eating are questioned and reconsidered.

Introducing the pedagogic theme of metaphor we explained to the students of EDF 1301 that during the unit, the course team would introduce crocodile moments and
associated ranger assistance. The aim of the crocodile moments was to provide experiences designed to challenge and unsettle personal assumptions about learning and teaching. Ranger assistance was designed to provide time to debrief and critically evaluate personal reactions to the crocodile moments.

In week three during a lecture presentation, by a course team member, another staff member stood up to interject and propose an alternative perspective. As a result of the ensuing debate some of the propositions stated in the official lecture notes were modified. After this exchange the students were invited to think about the contingent nature of knowledge and the role of negotiation and communication in a creative teaching/learning process. In subsequent workshops students were given the opportunity to share their ideas and reactions about this event in order to clarify their own perspectives about appropriate forms of teaching and student behavior and interactions.

During week five the standard lecture/workshop format was changed in order to offer experiences on a ropes course. This experience was designed to provide a physical challenge, and an experience of working as a team with their new peers under the supervision and guidance of more senior, third year students. In brief this was an experience involving challenge by choice and the enactment of active trust of one’s peers and staff. Throughout this event students were encouraged to verbalise their thoughts and reactions to the challenges that they were experiencing.

Through use of the lecture/workshop format students were provided with sensory experiences and the opportunity to verbalise and articulate their responses to these stimuli and then through the use of discussion, debate and access to pertinent literature to form conceptualizations about these experiences. In employing this pedagogic approach we placed maximum emphasis on the process of communication and in particular the work of Mackay with his emphasis on communication and meaning making. Here we drew on two axioms offered by Mackay

...communication occurs when the audience does something with the message … the real power is not in the message, but in the listener. The listener has the power to interpret the message and, in communication terms, that’s the ultimate power. (Mackay, 1998, p. 25)

Mackay’s work proceeds from a critique of traditional and dominant models of communication that rely on an act of faith in power of a speaker’s message. Logically this gives maximum importance to the role of a teacher using a traditional transmission model of pedagogy. Mackay inverts this logic with his second axiom where he focuses on the meaning making of the listener. Here he employs the metaphor of a communication cage as way of describing the cognitive structure used by an individual to sift, sort, accept and reject outside messages.

With this as our focus we turned the spotlight onto the students and invited, provoked and cajoled them into documenting and sharing their own understandings about the process of learning. In doing this we were attempting to reach across the three levels of James’ model and therefore to synthesise sensation, perception and conception. At this early stage in our program we do not have hard evidence about the impact of this approach although the following anecdotal responses from a workshop activity, at the
end of week six, provide some clues about what meaning making has occurred. Students articulated their developing perspectives with the following descriptors:

Learners are different from each other; The injection method is not effective-this was a huge insight, a few words in Mackay changed my whole perspective; Cages are constructed as barriers and for security; Transference of feelings occurs between teachers and students; Learners construct their own perspectives and develop ‘scaffolds’ as supports; Learning involves anxiety; Personal perspectives keep changing; Learning occurs through (active) listening; Knowledge is acquired by different means; visual, auditory and kinaesthetic.; Learning involves changing behaviour; Learning involves self understanding; Assessment is a powerful way of shaping learning and learners; Learning involves challenge and challenge creates learning; Learning involves communication; Vygotsky suggests learning involves a wide perceptual vista; Learning is subjective and is susceptible to change; The ropes course tells that learning involves team work; On any given Monday a wide variety of experiences and reactions will occur in ‘the classroom; Learning involves trust; I now have the confidence to ask ‘why’?

Concluding remarks

In developing our argument we recognize the need to be able to demonstrate the practical implications of our (re) thinking. To this end we have provided a schematic overview of some of the strategies that we have employed in an undergraduate unit. Here we have used a process of unsettling moments designed to provoke emotional and intellectual detachment in order to make space for conceptualization. We take this to be a sign that a new form of education is needed and if that is the case a new form of teacher education becomes part of the reform process.

We understand the stakes of this form of pedagogy to be very high. In the post September 11 world there is ample evidence of break downs of communication, consensus and civility. All around there are signs of anxiety, uncertainty and confusion. In an increasingly cosmopolitan and integrated world effective communication and genuine dialogue are of premium importance. Here we take a clue from Anthony Giddens (1994) and his concept of dialogic democracy. This he explains as;

…dialogue in a public space provides a means of along with the other in a relation of mutual tolerance- whether that ‘other’ be an individual or a global community of religious believers.

Dialogic democracy therefore stands in opposition to fundamentalisms of all types. (Giddens, 1994, p. 115)

Our aim is to develop a form of teacher education that can claim to be genuinely part of this dialogic process.

References

Using a simulated classroom to support preservice teacher decision making processes

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This paper describes the development of a classroom simulation. In the presentation we will demonstrate a pilot version of the software and report on our initial research into its use by pre-service teachers. The simulation allows users to take on the role of Kindergarten teacher in a simulated classroom. During the simulation the user makes decisions about organising the lesson, classroom management, and responses to individual students. The user can track the progress of three targeted students throughout the course of the simulation. An embedded tool serves as a “thinking space”. This is used to plan and justify new decisions, and to reflect upon the consequences of previous decisions. Supports are added which include links to: textbooks; the K6 English syllabus (1998); support material from the New South Wales Department of Education and Training; and sample artefacts collected from classrooms.

Reviews of beginning teachers over the past 80 years have continually identified a number of key skills that are often not well developed by traditional preparation programs. These include: student discipline, motivating students, dealing with individual differences, insufficient and/or inadequate resources, organisation of teaching and learning experiences, assessing student work, and relationships with parents. Interviews conducted with final year pre-service reachers report that they leave university with feelings of being under-prepared for life in classrooms and confused by what confronts them when they arrive at schools. In addition, the schools that employ beginning teachers often claim that a majority of recent graduates are often unaware of how classroom cultures operate and many find it difficult to transfer what they’ve studied at university into effective classroom practice (MACQT, 1998). The Ramsey (2000) review of teacher education in NSW supported these findings and also asserted that pre-service teachers do not understand how classroom practice produces effective student learning.

The time has come to re-think school-based practice teaching programs and many universities are experimenting with a variety of context-based approaches. For example, Cambourne, Ferry and Kiggins (2003) report on how they re-conceptualised the conventional school-based practice teaching program through an alternative approach known as the ‘Knowledge Building Community’ (KBC). This approach makes use of problem-based learning, support from interactive communication technologies, and regular, sustained classroom experience coordinated by school-
based teacher mentors (Ferry, Kiggins, Hoban & Lockyer, 2000). The focus of this approach is on building knowledge about how schools and classrooms work and this is done within a learning community which consists of peers, lecturers and school-based teachers who work in partnership to build the community’s knowledge about how schools work.

Limited research has been conducted on simulations in teacher development. However, recent educational software advances have demonstrated that it is feasible to create a motivational simulation that supports pre-service teachers with tools that allow them to view the effects of their decisions from multiple perspectives; allowing them to get close to the student’s experience of the learning episode. Furthermore, it is suggested that the design of the simulation can incorporate feedback and advice, through devices such as an on-line mentor teacher, and the opportunity to pause or repeat a lesson and explore alternative decisions. This is not possible in a real classroom. Whilst we acknowledge that a simulation is only a representation of real-life, there are features that have the potential to enhance real-life experience. For example, simulations can provide authentic and relevant scenarios make use of pressure situation that tap users’ emotions and force them to act, they provide a sense of unrestricted options and they can be replayed and altered (Aldrich, 2004).

Over the past decade simulations have become increasingly popular for creating realistic digital environments that closely replicate both the world and the workplace. Research and development in virtual reality and simulation engines have led to the release of some popular simulation games, such as the Sim series (© 2003 Electronic Arts Inc.). By manipulating simulated environments users can learn how to manage the nominated complex environment and view the consequences of the decisions they take.

Herrington, Oliver and Reeves (2003) claimed that many researchers and teachers now accept that well designed multimedia environments provide an alternative to the real-life setting without sacrificing the authentic context. Their review of the literature identified nine design elements of situated learning environments and they applied these to the development of a multimedia package used by a cohort of pre-service teachers. The nine situated learning design elements identified were: the provision of authentic contexts that reflect the way that knowledge is used in real life; authentic activities; access to expert performance or advice; multiple roles and perspectives; support for the collaborative construction of knowledge; reflection so that abstractions and generalisations can be formed; tools that enable tacit knowledge to be clearly articulated; scaffoldings and coaching by the teacher at critical times; and authentic assessment of learning within the tasks.

This paper focuses on a classroom simulation that has been designed for use within pre-service teacher education. It builds on the research of Herrington, Oliver and Reeves (2003), by applying some of the design elements they identified within an on-line simulation of a classroom. The simulation allows a pre-service teacher to take on the role of the teacher of a simulated Kindergarten classroom (children whose ages range from 5 to 6 years) and, as the simulation runs, the pre-service teacher is required to make many decisions about organising the lesson, classroom management, and
responses to individual students. The pre-service teacher is able to monitor and track the progress of three targeted students throughout the course of the simulation. Embedded tools serve as a “thinking space” for pre-service teachers. This tool is used at decisive points in order to plan and justify new decisions, and to reflect upon the consequences of previous decisions.

Aims

The research project aims to:
1. Describe the initial design of a computer-based simulation intended to progressively develop pre-service teachers’ understanding of the complex decisions needed to plan and implement literacy-based lessons for lower primary pupils.
2. Report on our initial investigation of learner’s engagement with the context and their use of the thinking tools embedded within the simulation.

However this paper focuses on the first aim.

The focus of the simulation

The pedagogical focus of the developing simulation is on the teaching of literacy skills in primary schools. Teachers of children in the early years of primary schooling need to provide appropriate sequences of learning experiences that develop reading and writing skills. It is important that beginning teachers understand the impact of classroom discourse on student learning (Gee, 2000). This is a very challenging task for beginning teachers. The simulation will make use of research data on how exemplar teachers facilitate learning and behaviour management within primary classroom settings, in particular during the teaching of reading and writing as the user engages with lessons around the days of the week.

Overview of classroom simulation

The simulation package is based on a literacy learning session that typically occurs in Australian classrooms containing lower primary children. Teachers of these classes usually design a “literacy block” (also referred to within the literature as a “language workshop”), which is scheduled daily for an hour and a half to two hours. This block of time is comprised of a series of short lessons designed to help learners understand and apply the written form of language. These are often referred to as “episodes”. During these “episodes” students read and respond to written text, use language to communicate in writing, and develop understandings of how language is used in our culture. To achieve this, teachers must make efficient and effective use of available learning resources and time to cover the traditional sub-skills of reading, writing, spelling, and grammar, in integrated and contextualised ways. This simulation engages the user in selecting a combination of “episodes” to teach the “days of the week” in the simulated Kindergarten class.
Design of the simulation

The user is presented with a Kindergarten class consisting of twenty-six students. The user is required to make a series of decisions about the management of the classroom, of students and of random events that typically occur during a lesson. The user will also be required to make decisions about the sequence of teaching – For example, do they begin a lesson with a sequencing episode, or a modelled reading episode, or a modelled writing episode, or a retell of a familiar story episode? Each one of these decisions has the potential to impact on subsequent decisions in each of these described areas.

As the user makes decisions about the management of the classroom and how they will organise their teaching experience, the simulation allows access to a branching cycle, representative of a slice of time within the whole teaching period. Each cycle that the user engages with, presents them with decisions related to that specific cycle. Care has been taken to ensure that a number of alternate cycles can lead to similar student outcomes. This reinforces the notion that there can be several suitable approaches to specific student learning needs. The cycles within the simulation have been organised as listed below:

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<tr>
<th>Management decisions</th>
<th>Teaching decisions</th>
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<td>1. The organisation of the classroom</td>
<td>5. Sequencing episode</td>
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<td>2. The start of the day</td>
<td>6. Modeled reading episode</td>
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<td>3. The late arrival of a student</td>
<td>7. Modeled writing episode</td>
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<td>4. Random decisions</td>
<td>8. Retell of a familiar story episode</td>
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Each of these cycles will be described further.

A key feature of the simulation is the ability to track the learning of three targeted students. Throughout each cycle there are opportunities for the user to pause the simulation and view the impact of the teaching and classroom management decisions upon each of the targeted students (see Figure 1). These are viewed when users select the student update button (individual buttons for each of the three targeted students have been developed). The updates have been organised according to the NSW model of pedagogy (DET 2003) and as such provide feedback on “intellectual quality”, “quality learning environment” and “significance”. At these points a sliding scale is available for the user to plot the expected performance of the targeted students as identified in the NSW model of pedagogy. Written feedback is presented according to this criterion so users can compare their predictions to that of a “panel of experts”.

The targeted students

Three targeted students are presented to the user in the first cycle of the simulation. A general description of each of the targeted students follows.

“Bibi” is a refugee child from Afghanistan. She has been in Australia for two months, one month of which was spent in a detention centre. She has limited English and listens intently to the teacher.
“Harley” is medicated for ADHD. He finds the classroom situation difficult and he is frequently not engaged during classroom lessons. If he is not medicated he tends to distract and annoy other children. The teacher is aware that “Harley” is being bullied by “Gavin” and the situation is being monitored.

“Gavin” has significant behavioural problems and as such a Classroom Teaching Assistant has been employed for twenty hours per week to support “Gavin” in the classroom. The teacher has negotiated a behaviour contract with “Gavin” and his parents (although his parents aren’t supportive of this). “Gavin” often finds classroom tasks difficult.

**Student: Gavin**

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<th>Intellectual quality</th>
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Knowing the sequence of the days of the week is an important concept that Gavin needs to know. Gavin has low phonemic awareness and the teacher is hoping that this continued drill and practice will support him with this. Additional drill and practice and word decoding skills can be incorporated into the individual support he receives from the Classroom Teaching Assistant.

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<th>Quality learning environment</th>
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This episode will begin with a whole class focus and move to the students working on an independent task. As Gavin has a short attention span he may find it difficult to listen during the whole class focus time. The expectations around the sequencing task are explicit, it is clear that Gavin is expected to paste the names of the days of the week in correct order in his workbook. The Classroom Teaching Assistant will be able to support him with understanding and completing this task. Having the Classroom Teaching Assistant and parent helpers will minimize management issues in the class during this time.

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<th>Significance</th>
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Knowing the days of the week is a significant concept for present and future utility, however the teacher is aware that Gavin often finds English tasks difficult. The whole class input aims to build upon the knowledge Gavin already has about the days of the week, the independent task aims to consolidate this input.

**Figure 1.1 Sample of student update within sequencing cycle according to NSW Pedagogy Model**

**The organisation of the classroom**

The user is required to select a classroom layout and this choice determines the teacher profile they are presented with.
The targeted students previously described are presented for the first time. These three students remain constant throughout the simulation and the user can view the impact of their decisions upon these students throughout the running time of the simulation.

**Start of the day**

The user is presented with an option to stay inside the classroom and finish morning preparations or go out onto the playground prior to the bell ringing to monitor and communicate with the students.

The playground scene (if that’s the option taken) depicts the teacher in the playground talking to an upset “Harley”. The teacher is also able to speak with Gavin and his father when they arrive at the school. These interactions of the teacher with the targeted students impact on these students as they enter the classroom.

Once the bell rings the students line up at the classroom door. If the user selected not to go onto the playground earlier, they rejoin the simulation at this point. The user is presented with an image showing both “Gavin” and “Harley” positioned fairly close to the front of the line. “Bibi” is not present as she has not arrived at school yet. The teacher greets the class, at which time there is an angry reaction from “Gavin”. At this time “Gavin” may storm into the classroom closely followed by the Classroom Teaching Assistant. This outburst from “Gavin” is dependent on the teacher’s interactions with him to this point, if the teacher has been on the playground before the bell, this incident will not occur.

**“Bibi” arrives late**

“Bibi’s” arrival will occur at a random point in the simulation. She arrives with a representative from the Department of Community Services and with whom the teacher has to speak with at the door. Prior to going to the door the teacher is faced with the decision to allow the students to talk amongst themselves while seated on the floor or to ask the Classroom Teaching Assistant to read a story to the students while they wait.

**Random management decisions**

Random decisions are interspersed within the teaching cycles of the simulation. These will occur within cycles 5 to 8 and are designed to expose the user to some typical teaching interruptions and will impact upon the running of the simulation.

One random management issue involves a knock at the classroom door. An older student has come to give the Kindergarten students an “important” announcement about the playground. This incident occurs with no decision needs to be made by the teacher. However, the disruption to the classroom may have an effect on the targeted students.
Another random management decision involves “Harley” approaching the teacher stating that he needs to go to the toilet. At this point the user can give permission for “Harley” go to the toilet or tell him to wait until recess time. If “Harley” is allowed to go the user must decide whether he can go alone or if he takes another boy from the class with him. If he goes alone, later the teacher will have to send someone to look for him. If the user decides not to let “Harley” go to the toilet “Harley” will ask another two times before he has an ‘accident.’

Cycles 5 to 8 are designed to make the user decide about the structure and organisation of the literacy “episodes” to be taught around the “days of the week”. Initially users select one of the four available “episode” options and follow that cycle through to its completion before selecting a follow-on episode. Each of these cycles is described below

**Sequencing**

This cycle involves the user in making decisions about the inclusion of parent helpers and the participation of students within this episode. These decisions have consequences within the flow of the episode.

This episode involves the students working in groups. The decision to include parent helpers impacts upon the management of this learning experience. The teacher works with a group in a guided format. If the user selected not to have parent helpers the students work at their tables, but many become progressively less engaged. The teacher is made aware of this increasing noise and may choose to stop the class.

**Modelled reading**

This cycle involves the user in selecting questioning techniques and the management of students in a whole class situation. These decisions impact specifically on the targeted students. For example, “Harley” tries to get the teachers attention, “Gavin” appears to be relatively disinterested and moves around the floor to different positions and annoys “Harley”, “Bibi” becomes upset when the teacher directs a question to her. These reactions from these students requires the user to make decisions related to these incidents.

**Modelled writing**

This cycle involves the user in deciding about the inclusion of parent helpers in this episode and questioning techniques. This episode moves from a whole class focus to the students working independently. The teacher works with a group on the floor for guided instruction. Both “Harley” and “Bibi” are included in this group. If parent help has been selected the user would see the students writing while the parents work with students as they roam around the room. If no parent help has been selected the students would work independently but many of them would become less engaged and begin to distract each other.
Retell of familiar story

This cycle revolves around a whole class focus. As they retell the familiar story different the user may select different children to interact with the lesson. Classroom management is a focus in this lesson, and the user has to make decisions about this. The user may make a decision that results in “Gavin” sulking. “Gavin” would leave the whole class situation and retreat to the back of the classroom.

Concluding remarks

“I had a teaching experience at school last week that was unexpectedly impacted upon through my experiences and insights gained during use of the teacher simulation exercises … The teachers had been talking about a student (at a Welfare Meeting) who had been misbehaving in the last few days and that his behaviour was escalating rapidly, they talked about him being volatile, rude, aggressive and violent… Panic set in … I racked my brain and something interesting popped up! I remembered Class SIMS and how the teacher used questions to keep a troublesome child focused on the lesson, on task and participating. Imagine - light bulb going on!! … I decided to make sure that whenever this child put up their hand (to a reasonable extent ie not being exclusive) I would ask them to contribute … It worked brilliantly - I was able to give this child lots of praise (I could almost see the chest expanding), he remained extremely focused - intent on listening for questions he could answer, and strived to be the first to finish each exercise. His hand went up for every question and in the end he probably helped me keep the class motivated and moving.” (Student Reflective Journal, 17.05.04)

Currently we are engaged with data collection and analysis, but anecdotal reports from pre-service teachers (an example of which is included above) who are currently schools have stated that some pre-service teachers have transferred their experiences in dealing with classroom management with the simulation to the classroom.

References

Feedback or reflective practice during the teaching practicum?

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This paper reports on the findings from the second stage of a study involving responses from pre-service teachers, to questions regarding feedback from their cooperating teachers both before and after their 8 week final practicum in schools. It was evident that eliciting and receiving feedback remained a challenge for many of these pre-service teachers who described how they valued quality feedback and the conditions which hindered feedback. The author explores and subsequently recommends a method which may provide a structure for reflective practice to occur, during pre-service teaching practicum in schools, which may be independent of and in addition to cooperating teachers’ feedback.

The end goal for giving feedback to pre-service teachers during their professional experience placements, could simply be said to develop good quality teachers who in turn provide good quality learning for the school students in their prospective classes. The process of the giving and receiving of feedback provides opportunities for a range of valuable outcomes along the way. Essentially, feedback can lead to improved development of teaching skills. Feedback can be gained from students, colleagues and parents, thus opening up channels of communication between these key components of the school community. Further, the purpose of feedback enhances the professional development of the pre-service teacher in curriculum, educational theory and professional identity. Given the potential importance of feedback, this paper explores ways of optimizing its application in the teaching setting.

The study

The first part of this study in which pre-service teachers completed a short questionnaire on eliciting feedback from their cooperating teachers, was reported on in 2003 (Cattley, 2003). In summary, eleven pre-service teachers considered feedback to be valuable to them in terms of their self-development, confidence, professionalism and openness to new learning. These students also named time and their own emotions as barriers to receiving feedback. The questionnaire was repeated at the end of the students’ final 8 week practicum, when 10 of the original 11 students completed the questionnaire for a second time. This was 4 months after the students had first completed the questionnaire.

I will now report on some observations covering several aspects of feedback such as importance of discussion, impact on relationships and barriers, following the second administration of the questionnaire. There were very few differences between the first and second round of responses to the questionnaire, with students expressing once again, great appreciation for feedback. An example of such a response to being asked
what made feedback useful, came from a student who reported that if the feedback highlighted something she had done well, then she would ‘know that this teaching strategy would be useful to use in the future’. Another pre-service teacher regarded feedback as an opportunity to work on her ‘weaknesses’ in order that she might reach her ‘full potential as a teacher’. It is acknowledged that feedback does not always meet pre-service teachers’ expectations (Bullough et al., 2002 p. 78), perhaps mirrored in these pre-service teachers’ responses in the second round of the questionnaire, in that they indicated a slight increase of emphasis given to the difference between constructive feedback and criticism. This was illustrated by one student who noted ‘there is a big difference between being constructive and being picky’.

I had anticipated that students may nominate the relationship aspect of the practicum in their second round of responses, since in the first part of this study as previously reported (Cattley, 2003), the student responses were generally ‘silent’ about what the teacher literature describes as the collaborative nature of relationships between pre-service teachers and cooperating teachers (Levin & Rock, 2003). Only one response from the repeat administration of the questionnaire, directly referred to this aspect. The student replied to the question, What makes feedback useful for you in your practicum? by saying,

> discussing teaching strategies with my cooperating teacher also helped to build up a better open relationship and lead on to discussions about other teaching topics. (student questionnaire, Cattley, 2003)

The importance of discussion was raised by another student who suggested that,

> verbal feedback was better than written, as being able to discuss things leads on to more discussions. (student questionnaire, Cattley, 2003)

A further two responses highlighted the difference between receiving constructive negative feedback as being more acceptable than straight out criticism, perhaps inferring some negativity in relationships. All 10 respondents to the second questionnaire acknowledged the usefulness of feedback from their cooperating teachers.

One noteworthy difference in the second round of responses came from a pre-service teacher who reported that feedback gave her,

> an insight into the areas my supervising teacher thinks are important, which are not always the areas I think are important. (student questionnaire, Cattley, 2003)

This latter comment was similar in nature to the first questionnaire responses in relation to being open to different points of view when receiving feedback. In addition, this latter student’s response highlighted the notion of teachers placing importance upon different things, suggesting a deeper line of thought from this particular student. Determining what is important, could be said to be a part of being a reflective teacher.
As mentioned earlier, this study invited the pre-service teachers to name barriers to feedback. There was little difference in the second round of responses to the first one, except slightly more students mentioned time as a barrier. This may have been due to the fact that the second questionnaire was administered in the last week of their final practicum while the first questionnaire was administered three months after the students had been in a school practicum situation. The reality of time constraints was therefore vivid and current, when responding to the questionnaire the second time around. A further barrier to feedback named this second time was the fear of negative feedback. One student stated,

avoidance, not wanting to hear any negative feedback even though you know you can’t be perfect at everything. (student questionnaire, Cattley, 2003)

Perhaps developing a strong self-concept within pre-service teachers would help to overcome such negative emotions, so that negative feedback would be seen instead as an opportunity for new learning.

Discussion

Complexities abound in the process of giving and receiving feedback, including the roles of those involved and each one’s sense of self. Some of these multifaceted aspects will now be discussed. There are a number of main players in the delivery of feedback. These include the pre-service teacher, school based educators including the cooperating teacher, university based educators, school students and their parents. The teacher education literature, as does management literature connected to many different professions (Olivera, Bane & Kopelman, 1997), discusses the notion of guiding new practitioners through mentoring as against supervising (Feiman-Nemser, 2001).

It is acknowledged that this redirection in focus from supervisor to guide, does not in itself remove the power differential. Even where there is not a formal role in assessment, as is often the case with beginning teachers during their induction phases (Strong & Baron, 2004), a trusting relationship must be developed before the ‘mentor’ is seen as anything different to ‘assessor’. This is particularly significant with pre-service teachers and their multiple ‘assessors’. The pre-service teacher is being ‘judged’ on their suitability as a teacher, by various school based personnel, often including the school principal or deputy-principal in addition to the cooperating teacher, as well as the university based educator. It is very difficult to dispel the power differential in this milieu while being under the ‘constant gaze’ of the cooperating teacher and others (Kosnik & Beck, 2003, p. 20). On the other hand it is not only the pre-service teacher who feels the pressure of power influences in the relationship of mentor-mentee. While much of the literature highlights the reciprocal learning advantages and opportunities for reflective practice that hosting a pre-service teacher affords, there is also the ‘weighty responsibility’ (Weasmer & Woods, 2003, p. 73) that the cooperating teacher feels, while under observation by the pre-service teacher. While it is acknowledged that there may be a reciprocal pressure in the mentor/mentee situation, it is the cooperating teacher who has ‘an agenda to assess’ (Strong & Baron, 2004 p. 51) and therein lies a challenge in developing truly collegial discussions. While in the study described in this paper, pre-service teachers expressed appreciation
for discussion time with their cooperating teachers, it seems that time itself is a barrier, in addition to the inherent tensions in the observed/observee relationship, in the practicum setting.

As reported earlier, the role of emotions was named as a further barrier to receiving feedback by the pre-service teachers in this study. The importance of pre-service teachers’ emotional development should not be overlooked. Often the suggestion of including the affective domain in teacher education courses relates to the beginning teachers’ abilities to manage their students’ emotions (Kassem, 2002) but the practicum is a minefield for internal emotional conflict within the pre-service teacher. It is their own emotional development that needs support if pre-service teachers are to manage the often well-intentioned criticism that they perceive to receive from their numerous ‘assessors’ on placement. Emotional support is recognised as being very important even when it ‘doesn’t appear necessary’, as the emotions play a vital role in a ‘teacher’s dignity’ and identity (Bullough & Young, 2002, p. 429; Hargreaves, 1998). How can, therefore, pre-service teachers strengthen their emotional experience and resilience?

Traditionally, cooperating teachers give either verbal or written feedback soon after the pre-service teacher completes a teaching session. It was interesting to note in this present study that one pre-service teacher commented on her preference for receiving verbal rather than written feedback as it was the ensuing discussion flowing from verbal feedback that she found most supportive. Discussion is seen as a valuable form of professional development and especially valued by pre-service teachers while at university, as found in a study reported by Lawson, Askell-Williams and Murray-Harvey 2002. As mentioned earlier, time is often mentioned as the barrier for gaining quality feedback via discussion during the practicum. Alternative ways of receiving feedback and of strengthening emotional resilience which do not impinge on the workload of the cooperating teacher, should therefore be explored.

One way to achieve this could be through the development of reflective practice skills within pre-service teachers, whereby they become skilled at giving themselves feedback of a constructive nature. This in turn should increase and improve upon teaching skills and give pre-service teachers insights into why they are teaching, what they are teaching and how this impacts upon their own students’ learning. The benefit of developing reflective practice skills should result in the pre-service teacher viewing ‘learning to teach as an on-going process’, that they will never know ‘everything about’ (Mueller & Skamp, 2003 p. 438). The education literature is replete with descriptions and summaries of the nature of reflective practice based on the works of Dewey, Schön and Biggs (Mueller & Skamp, 2003; Jay & Johnson, 2002; Spalding & Wilson, 2002; Weasmer & Woods 2003) but it is the deep analytical nature of reflection that may be summarized best in the words of Graham & Phelps (2003, p. 14) who say that ‘reflection and metacognitive learning process were constitutive of life-long learning’. This type of reflective practice could support the pre-service teacher in developing their professional identity as a teacher.

Yet how does reflective practice happen? Much of the literature describes the adoption of reflective practice through journaling, both written and web-based (Stiler
& Philleo, 2003; Spalding & Wilson, 2002). It is acknowledged that reflection ‘is hard’ (Graham & Phelps, 2003 p.18) and may need some firm structure. A video analysis of the pre-service teacher’s lessons offers such a structured opportunity for reflection to occur, rather than ‘leaving it to chance’ (Brady, 2000, p. 22). Video-taping has been suggested for a range of situations; the self-study of university educators (Dinkleman, 2003); for cooperating teachers to critique their feedback conversations with pre-service teachers (Clarke, 2000); for taping of the lessons of cooperating teachers (Meijer, Zanting & Verloop, 2002); and taping lessons of beginning teachers (Corcoran & Leahy, 2003). This method has had limited application with the taping of lessons given by pre-service teachers while on practicum, with the exception of a study described by Clarke (1995). The video-taping and follow-up self-analysis of their own lessons could introduce the pre-service teachers to the role of teacher-researchers as suggested by (Gray & Campbell-Evans, 2002; Kosnik & Beck, 2000 p.131) while using reflection as the tool (Genor, 2000). The recording of a lesson leads to the sense of self-audience. Weasmer & Woods (2003 p. 69), have indicated how an ‘audience’ can act as a motivator for reflection, which combined with the inevitability of ‘public presentation’ (Olivero, Bane & Kopeman, 1997, p.466) involved in teaching, will no doubt encourage the pre-service teacher to reflect by ‘critiquing their pedagogical practices’ (Mueller & Skamp, 2003, p. 429). If we are to develop graduate teachers who can apply ‘systematic reflection on one’s own theory’ of education and teaching (Ojanen, 1996, p. 4), then supporting pre-service teachers to give themselves feedback, should strengthen their reflective skills while reducing their reliance on their busy cooperating teachers. Ideally both types of feedback will occur, internal and external (Butler & Winne, 1995), as ‘self-knowledge is acquired through reflection and adequate feedback’ (Ojanen, 1996, p. 8).

Conclusion

What then may help to ensure that pre-service teachers engage in reflective practice during the practicum? Clearly the introduction of video taping of lessons with follow-up self-analysis and self-critique, could launch pre-service teachers on a journey as reflective classroom researchers, along the path of continuing professional development, in ways that strengthen their sense of professional identity, while avoiding placing undue demands on the cooperating-teacher or host school. This method will be the foundation of a future research project.

References


