

Reaching outside of the discipline: Chemistry teachers or organisational developers?

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Abstract: A team of chemistry lecturers experienced together the ‘phenomenon’ of a ‘community of practice’ over some years. A natural part of their enthusiasm was their desire to replicate the process for others; they saw that the process had potential for the university generally. They were awarded a grant to look at their process and also to research the work experience of academics outside of the group in order to understand how the collegial process they had enjoyed might be fostered. Their approach with other academics was informed by ‘appreciative inquiry’. Investigating how a collegial process might be fostered in other schools put the researchers in the peculiar position where their project might be considered more that of organisational developers than science academics. This paper is the story of their excursion beyond their discipline and a discussion of the lessons learned about fostering informal and potentially rewarding processes that make up a community of practice. The paper suggests that: since the collegial environment is a leverage point for the learning experience of students, divisions responsible for teaching development could focus on this environment; and appreciative interviews could be used to catalyse positive change.

Keywords: communities of practice, appreciative inquiry, teaching development

Introduction

The Chemistry Teaching Team (CTT) began as a group of six chemistry lecturers, an educational designer, and an education lecturer, based primarily in the School of Science & Technology, Charles Sturt University (CSU). They began with a commitment to regular meetings in 2002, originally with the idea of creating a group teaching portfolio. The intention was to adopt a framework within which opportunities for individual and collective reflection on teaching and learning practice could occur. In the early stages, the university’s Organisational Development unit provided two facilitators to help foster and promote depth of discussion for the group.

The CTT has reported on its initial experiences in the project (Adlong et al 2003). Our team discussions and brainstorming provided us with insights into our practice of teaching - insights that would have been unavailable to us as individuals. The group provided a focused opportunity for members to debate, critique and listen. It allowed an environment of trust to develop; each member came to accept that the different perspectives of the members were actually the basis of much learning and statements of the other members were not meant personally. Each member felt free and safe to express opinions, with the assurance that differences or criticisms were not taken personally. There was an ethos of suspending judgment to better listen to each other’s perspective. The CTT engaged in a project to maximize the learning environment in student laboratories; student surveys and focus groups for this project conducted by the group fed into its reflective discussions. Members were willing to risk ‘thinking out loud’ with new ideas. Seniority was shed on entering the meeting space, and there was symmetry to discussion; i.e. there was equal right to speak among

members. These various factors contributed to the climate of collegiality within the group. Participation in the group gave members a feeling of considerable satisfaction.

Participation in the group contributed to a number of changes in members' teaching practice, particularly around their first focus – the lab experience. Pre-lab tutorials and inquiry based labs were initiated and one lab, particularly identified as a problem in student focus groups, was rewritten. The CTT found scholarly evidence of the benefits to students of reflective practice groups. The work of Chase (2001), Mezirow (1991), Macdonald and Gunn (1997 cited in Bruck *et al.* 2001, p. 87), Collay *et al.* (1998), Wenger (1998) Wenger, McDermott & Snyder (2002), Schugurensky (2002, pp. 63-64), Kemmis and McTaggart (2000) suggest that staff reflective discussion groups could provide a site for transformation of lecturer perceptions, and hence teaching practice, as well as contribute to staff morale and commitment. Mezirow (1991) writes of the possibility of perspective transformation for members of critical discourse groups. Wenger (1998) explains how practice, meaningfulness and identity can develop through participation in a community of practice (CoP). Boyer (1990, p. 38) also recognised the role such groups can play:

The assumption is that awareness of good practice will improve as faculty meet in small groups - on an ongoing basis - to discuss pedagogical procedures. In such a process peer evaluation will be more readily embraced.

From early in their history of meeting together, the CTT members felt that if their collaborative process worked for them they would like to 'replicate' it for others. As members found that the group did provide a space for them to deepen their consideration of their teaching, and also had a pleasurable, affectively rewarding, dynamic, their interest in fostering the process for others grew. Two members of the Team have made presentations at a number of professional development activities within the University.

To pursue the intent to share the process further, a proposal was put to two internal funding bodies. With the title "Transforming the teaching climate: A study of the dynamics and potential of group reflective practice" the CTT proposed to look more closely at their own process, and to undertake research with (or 'on') other academics about their work experience, to provide understanding to enable the fostering of similar collaborative reflection groups elsewhere in the university. The remainder of this paper describes aspects of the second phase of the project, with academics outside of the CTT.

Our project could be considered organisational development (OD) as it intervenes "to improve organizational effectiveness and employee well-being" (Robbins 2003, p. 566). OD is intended to change an organisation "toward improved problem solving, responsiveness, quality of work life, and effectiveness" (Cummings & Worley 2001, p. 3). Our intent to transform the teaching climate can be seen as fitting in with the recent increased emphasis on culture, transformation and organisational learning within OD (Cummings & Worley 2001) and the trend to organise as teams within organisations generally (Long 2003; Savoie 1998). It can be argued that the contemporary interest in CoPs has grown out of the enthusiasm for the use of teams for reforms, and that the CoP concepts of Lave and Wenger are extensions of the concept of the team, engaged in such a way that it fosters emergent modes of working (Iedema, Meyerkort & White 2005, p. 13)

Methodology

Our original plans were to interview other members of the university about their work experience in order to compare them to the experiences of the CTT members. Then we questioned the ethics of this approach as we realized that any research is actually a form of intervention (Ludema, Cooperrider & Barrett 2001; Finegold, Holland & Lingham 2002, p. 237); “In OD, ‘every action on the part of the ... consultant constitutes an intervention’ that will have some effect on the organization” (Cummings and Worley 2001, p. 25, quoting Schein 1967, p. 98).

Interviewing is an opportunity for the interviewee to think about the area of focus. Such space for reflection may be what is needed to make a change. If the research approach is instead too extractive, and only treats participants as sources of knowledge, it could reinforce a negative *status quo* (Wadsworth 1997, p. 47). Since the aim of our project was to help others achieve an improvement in their work environment, we decided to use the research methodology itself to help do so. We drew from the ‘appreciative inquiry’ approach (described below).

We conceptualised the interviews as allowing participants to explore the meaning of the issue for themselves. We were not just gathering knowledge; we were allowing them to create meaning (Holstein & Gubrium 1999). Interviews would help participants to rethink their ideas, for people do not just report on their thinking in an interview, they actually form and amend interpretations as they answer (Fontana & Frey 2000). Recognizing that people ‘construct’ themselves as they give information about themselves, O’Connor (2003, p. 224) writes, “the speaker and ... [the interviewer] are in an interesting nexus of practice that could effect change”.

We sent out an information sheet to the Heads of the various Schools asking them to forward it to interested groups or academics in their school. Then, after having received only a very small response, we approached the Head of School (HOS) for a school that has several disciplines, is in a different faculty than the chemists, and in which we did not know of an existing discussion group, CoP or group cultivating collegiality. This led to the recruitment of six individuals, each of whom was interviewed separately and confidentially. Questions in the interviews were about previous valuable collegial experiences and ideas for developing similar experiences in their present school. Through the interviews the researchers developed an appreciation of the views of the participants, and devised a series of talking points for a focus group interview to which all participants were invited. The focus group was designed as an opportunity to share and develop the ideas gathered in the interviews. Some of the interviews preceded the focus group by some months.

Appreciative inquiry

Ludema, Cooperrider & Barrett (2001, p. 189) write:

appreciative inquiry, as a constructive mode of action research, can unleash a positive revolution of conversation and change in organizations by unseating existing reified patterns of discourse, creating space for new voices and new discoveries, and expanding circles of dialogue to provide a community of support for innovative action.

The assertion in appreciative inquiry is that organisations develop in the direction of their inquiry (Ludema, Cooperrider & Barrett 2001, p. 192). In their seminal article on appreciative inquiry, Cooperrider and Srivasta (1987, p. 129) state: “through our assumptions and choice of method we largely create the world we later discover.” Rather than focusing on and

thinking in terms of problems, appreciative inquiry draws from positive experiences when attempting to change social systems:

Appreciative inquiry, as a method of changing social systems, is an attempt to generate a collective image of a new and better future by exploring the best of what is and has been (Bushe 1999, p. 62);

[appreciative inquiry] is based on the simple assumption that every organisation has something that works well and these strengths can be the starting point for creating positive change (Cooperrider, Whitney & Stavros 2003, p. 3).

Appreciative inquiry is regarded as one of the major approaches to OD (Cummings & Worley 2001; Robbins 2003). It is part of a participative, interpretive “approach to planned change” (Cummings & Worley 2001, p. 27) that has grown out of action research and is part of “a growing tendency [in organizational development] to involve organization members in learning about their organization and about how to change it” (Cummings & Worley 2001, p. 26)

There are normally four phases in appreciative inquiry, which start with interviews that are usually both of and by organisation members, which are followed by group sessions. The phases are: Discovery (appreciating the best of what is); Dream (envisioning what could be); Design (co-constructing what should be); and Destiny (sustaining what will be) (Ludema, Cooperrider & Barrett 2001, p. 193). While our understanding of appreciative inquiry strongly shaped our project, we did not conform to the 4-phase protocol.

Findings

Findings in the individual and group interviews related to: attributes of collegial groups (and the relation of these to their present setting); physical space for meeting; occasions for meeting; effects of the method; and decisions made.

Attributes of collegial groups

The interviews revealed previous experience in collegial groups that allowed dissent or at least in which there were non-hierarchical relations and mutual respect. For each of these individuals, working within such a group was rewarding and fulfilling, and viewed as a positive contribution to their work environment. There was a sense from all but one of the interviewees that a good collegial climate was missing within their School. It later emerged that the school had rated very poorly on a previous University survey of work climate.

Physical space for meeting

Several items emerged from the focus group discussion that the participants viewed as important factors contributing to a lack of collegiality among colleagues within the School. Participants agreed that the lack of a welcoming meeting space inhibited collegial interaction. There is a meeting room in the School building, but it clearly feels uncomfortable to the participants and their co-workers – the room is not even used as a lunch room by most members of the School; the ‘feel’ of the room was viewed as an obstacle to people sitting together for lunch or tea. Typically, staff in the School have lunch in their offices.

Occasions for meeting

Another item discussed at some length was the lack of opportunity within the School to gather as a group. Besides a single research seminar per month, there were no organized activities or

meetings which acted to bring School members together. It was decided that if some activity were contrived to bring people together, providing an opportunity to get out of the office and talk with each other, it could act as one step on the way to 'opening doors'. Suggestions for such activities included a monthly meeting about teaching issues, for instance, like the 'Talking About Teaching' lunchtime sessions that occur in CTT's School; a similar meeting talking about research issues, and perhaps one reporting on professional committee activities outside the University. In this way it was thought that an at least weekly get together of some kind could begin to bring members of the School together and perhaps start the formation of some scholarly interactions.

Additionally, interviewees noted the importance of informal interactions. The proposals for meeting occasions were viewed as being, of necessity, informal gatherings to allow open discussion and interaction. The irony of *organizing* informal get-togethers was recognized, but constructing opportunities for communication was viewed as most important.

Effects of the method

The participant group did not adhere only to the positive; there were descriptions given, and frustrations expressed, about existing problems. But the stated appreciative inquiry orientation did help to shift thinking away from the idea of problems to the sense of possibility. Though the participant's discussion did occasionally identify a problem, or even suggest that there were certain colleagues whose egos were a problem, these comments seemed to be made with a sense of responsibility for contributing to finding a solution.

Researchers who were more skilled at the appreciative inquiry approach of zeroing in on the peak positive moments "to discuss the factors and forces that made them possible." (Ludema, Cooperrider & Barrett 2001, p. 192) could have realised more of a change from 'deficit vocabularies' (p. 192). The two primary researchers on the project themselves had difficulty not falling into the deficit vocabulary at times. The intent to use an appreciative basis, however, did guide the researchers and prompted their questions in the individual and group interviews.

Decisions

The researchers had perceived, through the interviews, that it would probably be of value for them to approach the HOS with suggestions emerging out of the project. The participants at the focus group agreed and asked the researchers to take a report to the HOS with their suggestions and requests. The members of the focus group did consent to be part of a steering or reference group for ideas that come out of the contact with the HOS. After some discussion of how the atmosphere in the problem tea room might be improved, two participants volunteered to take on a coordinating role of setting up the room for some informal occasions, making it more comfortable and aesthetic. One participant also volunteered to organise some small events in the school to act as a catalyst in bringing people together.

Discussion

As we analysed the findings, we were encouraged to see that the appreciative inquiry approach had been successful as through both the interviews and the focus group, participants were provided with an experience of some of the elements of a successful collaborative reflection group or CoP. Participants were given an opportunity to speak freely, to be listened to intently, to form and hear and reflect on their own perspective, to focus on an issue of importance to them and to plan action around that issue. This suggests that the knowledge

necessary for developing a CoP is more of a practical experiential knowledge, with tacit understanding and emotional attributes (such as an experience of symmetrical communication and safety to take risks) than a conceptual knowledge. This is compatible with the orientation of appreciative inquiry, which “asserts that the locus of knowledge is in our relationships and we construct our reality through our conversations and social interactions” (Finegold, Holland & Lingham 2002, p. 237).

As our team has learned, a CoP is a direct and often intuitive experience that often does not need to be mediated through scholarly theory (Adlong et al. 2004). It is something that is often more effective to share or engender through experience than it is to rationally argue for and persuade about: “Coordinators [of CoPs] connect people; they do not convey information” (Wenger, McDermott & Snyder 2002, p. 128); “This type of knowledge [in CoPs] is much more a living process than a static body of information” (Wenger, McDermott & Snyder 2002, p. 9). In this context meaning is derived from interactions undertaken as part of participation in the community of practice. Through participation common understandings are derived from the learning that involves four “deeply interconnected and mutually defining” key components: “meaning (learning as experience), identity (learning as becoming), practice (learning as doing) and community (learning as belonging)” (Wenger, 1998, p. 5).

An aspect of this practical knowing is that the participants saw that others in their School shared this interest with them, and could provide a field for the development of that interest. The participants mentioned that it was good, even "therapeutic", to talk together in the focus group setting. The solidarity arising from the experience of talking freely, and symmetrically, with each other, can draw people forward to action. We have tapped or generated the enthusiasm of participants, as was demonstrated with the commitments participants made for further involvement, and by the fact that 5 out of the 6 interviewees followed through and were part of the focus group that ended up being held in the middle of December. The 6th participant was out of the country. Whitney & Trosten-Bloom (2003, p. 19) write that “appreciative inquiry liberates power”. Bushe and Kassar (2005) assert that appreciative inquiry supports self-organizing change processes.

In organisations following an appreciative inquiry approach there are moves toward, “including ever-broadening circles of participants in the conversation. Each inquirer brings additional linguistic resources and helps to build a language that creates broader and deeper possibilities for action” (Ludema, Cooperrider & Barrett 2001, p. 192). We are going on to “widen the conversation” as we provide a report to the HOS as requested by the participants. We have also made some initial contacts with Organisational Development to explore how a project such as this could complement work that they are doing.

Our findings show that an approach based in appreciative inquiry can lead to positive change. Individual interviews were a form of participation that supported participants in redefining their sense of the organisation in terms of positives. The focus group gave an opportunity for extending that new definition of the organisation – that sense of possibility - and for building solidarity and enthusiasm. An appreciate inquiry approach can be a catalyst for change that operates not only on the cognitive level, but on the social and affective levels as well. The approach complements the ‘organizational learning’ and interpretive perspectives on organisation that recognise that an organisation is not “a static entity but an active process of sense making and organizing” (Cummings & Worley 2001 p. 522; also Grieves 2000).

In the recommendations we make to the HOS in our follow up report, we will emphasise the possibility of creating opportunities for those who are interested in developing this collegial environment, rather than looking for a way to “fix the problems” of the school. We will speak in terms of unrealized potential rather than a need for remedial action. Thus, we can continue to carry on the appreciative orientation with future developments in the project.

Together the researchers, participants, and their HOS do not need to create a plan for the School as a whole to develop a more collegiate atmosphere; we need only create opportunities for those who are interested in having the social infrastructure to enjoy a collaborative climate. There is a possibility that others in the school will, in time, become more interested. Whitney & Trosten-Bloom (2003, p. 75) write of the free choice principle in appreciative inquiry, which posits that people and organisations thrive when they can choose whether they will participate and the extent of their participation.

Teaching groups are a possible potent means for enhancing both ‘teaching development’ and organisational development. Perhaps recognition of efforts to cultivate the social infrastructure can be made by higher education institutions (as in fact our grants and publications did for us). In addition to teaching, administration and research activities as criteria considered in academic promotions, there could be more recognition of the role staff play in coordinating informal interactions and the collegial relationships that can form around and be so important to the quality of teaching. This would help the school in our study. Recognition - in workload, future promotions, or merely ceremonially - would better enable people such as our participant who volunteered to coordinate activities in the school.

Conclusion

It seems natural, given the enthusiasm that is generated in the social participation in communities of practice, that there would be some stepping beyond the borders by members wishing to spread the experience. The choice of the style of methodology in this project allowed for the research to work toward its objective of fostering CoPs in a more direct fashion. Rather than create knowledge which *might* be used for our aim, with someone later trying to apply abstract knowledge to a situation, we worked directly toward our aim and in the process dealt with the inevitably idiosyncratic nature of the local situation. Given the organic nature of CoPs, it also seems natural that it would be the task of one group to start another - rather than an institutional directive. Such sponsoring of groups can help provide the experience that gives the practical, affective knowing that is so important in communities of practice.

It is possible, and perhaps even commendable, for academics to reach beyond their discipline and attempt to foster a social field which is a leverage point for the development of teaching practice. It is through this field, similar to the teaching circles of Boyer (1990, p. 38), that awareness of pedagogical issues can develop and hence new understanding, reflection and innovations proceed - a climate of scholarship of teaching. We cannot say that we in fact succeeded in creating permanent change within the participant School; but we are confident that there is something beginning which can be part of a long term development. We intend to continue to play a role in nurturing it.

Managers who believe in the power of climate and collaborative reflection might do well to support volunteers from existing collaborative reflection groups to take a facilitative role with other groups and might consider the power of the appreciative inquiry interviewing approach.

Facilitation of informal social infrastructure and discussion networks also merits serious consideration as a major mode of operation for teaching development units. Such networks involve not just the creation of discussion fora across the university, but the fostering of richer dialogic relations among people who work together on a day to day basis.

Acknowledgements

We wish to thank the centre for *Research into Professional Practice, Learning and Education* (RIPPLE) and the *CSU Scholarship in Teaching* program for providing funding for this project.

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