

# **Applying action research in practice**

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## **Abstract**

In recent years there has been a great deal of emphasis placed upon the need to ensure the continued and professional development of academic staff within universities; particularly with regard to the improvement of teaching skills. This trend is reflective of the general, community wide, effort to improve the delivery of professional practice within all 'professions', and is mirrored in the many, and varied, programmes designed to enhance professional practice that have appeared.

The concept of professional practice and the strategies used to enhance professional practice are extremely diverse and varied in their focus. Whilst acknowledging the wide range of approaches that academics may choose from in seeking to improve their own professional practice this paper focuses on the use of action research and draws upon personal experiences of two academics to illustrate how the principles of action research can be used in practice.

# **Applying action research in practice**

## **Introduction**

Over the last ten to twenty years we have seen increasing calls for improved training and development at all levels of organisations and for all employee classifications. This has resulted in the widespread development and adoption of many different programmes. Within those areas recognised as ‘the professions’ this call has moved beyond the basic improvement of training and development activities and has focused on the long-term need for professionals to maintain, up-date and improve practice based upon increased levels of knowledge, experience and research; hence the emergence of the field of professional practice. In keeping with this trend a great deal of emphasis has also been placed upon the need to ensure the continued and professional development of academic staff within universities; particularly with regard to the improvement of teaching skills.

The concept of professional practice and the strategies used to enhance professional practice are extremely diverse and varied in their focus. Whilst acknowledging the wide range of approaches that academics may choose from in seeking to improve their own professional practice this paper focuses on the use of action research and draws upon personal experiences of two academics to illustrate how the principles of action research can be used in practice. To accomplish this, the paper will first review the nature of action research and its use in reflecting on professional practice. Second, two incidents where action research was used to reflect on aspects of classroom interaction will be presented, and finally, how action research contributed to improved, or enhanced, learning will be examined.

## **Grasping Action Research**

In simple terms, professional practice can be viewed as “concerned with the manner in which practitioners perform the roles and tasks of their profession in conjunction with individuals who are their clients or patients, and can include the application of theory and practice principles to real world

problems” (Higgs, Titchen & Neville, 2001: 4). Higgs, Titchen & Neville (2001: 4) argued that “Effective professional practice relies on both theoretical knowledge and knowledge from professional practice experience” which build upon each other; so both aspects of knowledge acquisition and use need to be considered when examining research in professional practice.

Various approaches to professional practice research have been used; each attempting to address the requirements of knowledge development (theory), practical applicability and scientific/academic rigour, with varying degrees of use and success. The use of professional knowledge, evidence-based research, reflective practice, practitioner inquiry and action research have been widely discussed (Higgs, Titchen & Neville, 2001; Slavin, 2002; Schoen, 1983; Harrill, 2000; Grundy & Kemmis, 1981 & Socket, 1989).

Action research, the focus of this paper, has been widely promoted as a method for undertaking explorations of professional practice as it is investigative and action-oriented, collaborative and conducted internally within the profession, and tends to directly relate and convert theory to practice. This involves an interactive process of:

Reflection → Change in practice → Reflection on change → Further change

### ***The concept***

Like many other concepts action research has been variously defined. Three oft quoted definitions can be found in Table 1 below. Within *all* these definitions there are four basic themes: empowerment of participants; collaboration through participation; acquisition of knowledge; and social change. The process that the researcher goes through to achieve these is a spiral of action research cycles consisting of four major phases: planning, acting, observing and reflecting (Zuber-Skerrit 1991:2).

**Insert Table 1 about here**

Action research was designed specifically to bridge the gap between theory, research and practice and incorporates both humanistic and naturalistic scientific methods and is promoted as a process that manages current needs and challenges. For example teachers identify problems from the circumstances and contexts of their fields of activities (from challenges that confront them directly) and seek solutions or recommendations, either individually or collaboratively. Due to its nature action research has enjoyed increasing popularity across a wide variety of disciplines including sociology, psychology, organization theory, management, marketing, accounting, human resource development and education and university studies (Grnhaug & Olsdon, 1999), and a variety of approaches and uses have emerged since it was developed by Kurt Lewin in 1946.

Whilst there is some variation in the approaches used within action research (eg. four major approaches widely recognised and used include action science, co-operative enquiry, participatory action research and the developmental action inquiry approach) it is evident that action research must possess simultaneously, an aspect of direct involvement in organisational change, and provide an increase in knowledge. According to Paisey & Paisey (2006) action research aims to foster improvement via a defined research framework. Collectively, action research can be viewed as research that is designed to build knowledge, implement change and refine practice and performance through a continual process of observation, reflection and improvement (Donato, 2003; Stringer, 1996).

### ***What constitutes action research?***

Kemmis & McTaggart (1988) suggest that the fundamental components of action research include: (1) developing a plan for improvement, (2) implementing the plan, (3) observing and documenting the effects of the plan, and (4) reflecting on the effects of the plan for further planning and informed action. Whilst the emphasis in Kemmis & McTaggart's (1988) approach is on implementing an action plan, others such as Burns (1999) are more focused on planning for action. However, both elements are essential for effective action research.

According to Grundy and Kemmis (1981 as cited in Grundy 1988) there are three minimal requirements, which incorporate the goals of improvement and involvement, for research to be classified as action research. These are:

1. the subject-matter is a social practice susceptible to improvement;
2. the project proceeds through a spiral of cycles of planning, acting, observing and reflecting, with each of these activities being systematically and self-critically implemented and interrelated; and
3. the project involves those responsible for the practice in each stage of the activity, widening participation in the project gradually to include others affected by the practice and maintaining collaborative control of the process.

(Grundy and Kemmis 1981 as cited in Grundy 1988:353).

### ***Action research in the classroom***

Action research has been advocated as a research method particularly suited to classroom inquiry where other methods may be unsuitable due to issues of time, cost or perhaps scale. This view has received some criticism on the grounds that the focus is essentially about improving teaching rather than conducting actual research. However there are also those who stress that action research is more than just good teaching – as even where the actions being researched are small scale (as in the classroom) they help to create and reinforce an inquiring culture in which questioning and reflection together stimulate improvement and professionalism (Paisey & Paisey, 2006).

Ferrance (2000) argued that action research is a response by practitioners to address particular problems and incidents arising in the course of the practice of their profession. She also suggests such problems and incidents as current emergencies, involve a process of problem isolation, analysis, data collection, and practicable conception, in which those involved examine their own practice systematically and carefully, using the techniques of research.

Therefore, action research methods in education can be used for various purposes such as curriculum development, professional development, systems planning and restructuring, but also as an evaluative tool when applied to a specific environment such as an educational setting (educational action research) (Ferrance, 2000). This is a reflective process that allows for inquiry and discussion as major components of the research. This often involves collaborative activity among colleagues searching for solutions to everyday, real problems experienced, or looking for ways to improve instruction and increase student achievement. However, it is not simply problem-solving to find out what is wrong (ie not evaluative), but a quest for knowledge about how to improve; and is *not* about doing research on or about people, or finding all available information on a topic looking for the correct answers (Ferrance, 2000). Rather it involves people working to improve their skills, techniques, and strategies. Hence, action research in education is directed towards raising the general and specific principles of *professional teaching practice*.

### *Limitations of action research*

In adopting an action research approach it is important to acknowledge that whilst it has much to offer research in professional practice it also has a number of problems or limitations. These include, but are not limited to:

1. misuse of the methodology – a focus on its problem solving potential, poor question formulation, biased research through poor choice of participants
2. timeframe limitations – practitioners often do not have time (or resources) to follow through the planned research process
3. failure to relate data collection to a clear social perspective – ie. What are we doing and why?
4. assumptions that action research will lead to an improved state
5. a dilemma exists in determining what counts as improvement, and what changes in practice resulted from the research
6. the literature is primarily focused in the field of education

(ideas sourced from Graham & Jennings,1996; Green,1998; Mills, 2003)

## **Applying Action Research in practice**

With its focus on improving general and particular professional practices, action research holds possibilities for imparting a deeper understanding of professional practice, an enriched capacity to engage in professional practice and a commitment to an ongoing quest for quality improvement in professional practice on the part of professional practitioners (Aspland et al. 2002: 2). Thus, a reason for researching professional practice lies not only in the investigative and theorisation of action research, but more importantly, in its practicality. At the tertiary level action research might also lead to a better understanding and improvement of learning, teaching and staff development, as well as a more critical reflection on an institution's role and functions in society, which in light of the demands for better quality teaching would clearly be beneficial.

In the following section the benefits and limitations of action research are explored in two incidents experienced by academics. These involve experiences from two academics teaching two different cohorts of students (at different levels) at a university and will be used to illustrate how the above-identified possibilities for researching professional practice through action research can be used to examine issues or problems encountered in professional practice.

### *Incident 1: Group Formation*

*After teaching a first year management class for several years the lecturer observed that in tutorial classes, where group activities were often used, the students tended to form a group with people they had previously had some association with (perhaps through school, living in the same town/city, having met during "orientation" week, undertaking the same course, or were all international students). The lecturer was interested to discover to 'what degree patterns of group formation and interaction amongst first year students might be relevant to optimising teaching and learning outcomes and how a better understanding of this might contribute to the teaching strategies she employed.'*

*To this end a simple research project was designed to seek student feedback on the use of group activities and interaction in the classroom. The study involved observation of students in the classroom setting, the administering of a short questionnaire and a desk top review of students' academic standards. In the questionnaire students were asked three basic questions:*

- 1. did they feel that the subject reflected their expectations?*
- 2. did they find the group activities useful?*
- 3. did they find the experience of group interaction useful?*

*Analysis of the data collected clearly pointed to a number of findings:*

- 1. There is a relationship between seating arrangements and group formation; these in turn relate to issues such as having previously met the student, having similar backgrounds or perhaps culture. For example some groups were predominantly made up of students from either a particularly nationality or gender, whilst other groups would have a very mixed membership.*
- 2. Group activities and interaction were perceived as beneficial. As the semester progressed students became increasingly interactive both within and between groups, and were more likely to 'step out of their comfort zone' to complete tasks.*
- 3. Groups of four or five members seemed to be most effective, stimulating enough discussion for the task at hand, whilst not being too large for all members to make a valuable contribution.*
- 4. Students prefer 'learning' exercises as these gave experience with what would be expected in the examination and also helped them to remember the topic through reinforcement.*
- 5. Students of similar academic standard tended to form groups*

### Incident 2: Teaching Strategically

*The teaching of small classes frequently involves the adoption of a different teaching strategy. In this case a third year class offered for a specialist subject where enrolment can vary from anywhere between eight and thirty on-campus students. To address the specific needs of this class the lecturer decided to adopt the use of case-based reasoning as the main teaching tool. Whilst it appeared to work well in the classroom environment the lecturer was interested to know 'how students perceived the learning process and whether it enhanced their ability to understand the use of theory in practice and how use of this method might be further developed'.*

*To this end a simple research project was designed to seek student feedback on the use of case-based reasoning in the classroom and their experience of learning through this method. The study involved the administering of a questionnaire that sought responses to a variety of questions that examined skills development, understanding of subject content (including theoretical learning), and organisational transference (ability to relate learning in the classroom to an organisational situation). They were also required to undertake an organisational based, group assessment task, which necessitated the application of theory to practice.*

*Analysis of the data collected from the questionnaire and student's assignments indicated that:*

- 1. they found the experience of using case-based reasoning to be positive; both in terms of improving learning experiences and in increasing interest in the subject*
- 2. it assisted them in understanding the theoretical material and improved their ability to relate this to practical organisational based situations.*
- 3. it assisted them to develop their analytical and reasoning skills*
- 4. case-based reasoning is a suitable teaching method for this subject- enhancing both learning and interest.*

We can see that the above incidents lend themselves readily to the use of action research; the stages of which are summarised in Tables 2 & 3. In both cases the instructors involved identified an issue or concern that they wanted to learn more about, looked at alternative ways to collect information, chose and implemented an action plan to gather data, analysed findings and used these to reflect upon and improve professional practice. The activities outlined here clearly mirror two key principles of action research as proposed by Danato (2003) and Stringer (1996) – building knowledge, and refining practice and performance.

**Insert Tables 2 & 3 about here**

In both cases the knowledge gained through action research enabled the instructors to improve their skills, techniques and strategies; assisted with curriculum development; and contributed to overall professional development. For example, in relation to the findings on group formation derived from the study in Incident 1, the instructor has recently implemented changes to classes taught at the university. Some groups were made up predominantly of students from a particular nationality or were overseas students (from a non English speaking background). The instructor has ensured groups formed in class include a more diverse range of students (from different backgrounds) and avoided groups of mainly overseas students. As a result, it has been observed that those people who had language difficulties, showed shyness in class and avoided taking part in discussion, had now become less shy, improved their class participation and seemed to have a better understanding of the issues being taught in the classroom – due to the help and support from those students in their group who did not have these difficulties. This in turn has boosted the self esteem and confidence of those students from overseas and assisted them to also achieve better results in their study.

In the case of Incident 2, whilst the response to the use of case-based reasoning was on the whole positive, some students expressed the desire for more structure at the beginning of class; particularly in relation to debating the required reading materials and their relevance to the class activities. To address this concern the lecturer has allocated twenty minutes at the beginning of each class to draw

out key elements of the reading materials, discuss new concepts and theories and provide examples to illustrate how this knowledge relates to, and can be used in, the case and group activities that are to be used in the remainder of the class. This small change in the way classes are structured has resulted in students being much more focused on the topic(s) addressed in case study materials and more appreciative of the interrelatedness of the various activities they undertake.

## **Conclusion**

A review of the professional practice literature and approaches designed to enhance professional practice shows that in general professionals draw upon a combination of experience, knowledge/reading, and continuing research and development to maintain their professionalism. Whilst not all approaches are suitable for all situations, it is possible to find one suited to most situations; and as the call for improved quality of teaching within universities grows academics will be required to demonstrate how they have taken action to enhance their own performance.

It was been argued within this paper that action research, despite its recognised limitations, is a suitable method of reflection that can be used in most classroom settings, and will assist in addressing many issues and concerns identified by the instructor. Its attraction comes from both its simplicity of idea, and its flexibility in terms of investigative method and application. The two incidents presented within this paper are simple, yet have enabled the instructors to make changes to classroom interactions that have had significant impacts upon both students' learning of subject content and experience with the learning process. The value of action research in these situations has proved itself, and demonstrated that as a method of reflection and improved professional practice it has much to offer.

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**Table 1: Action Research Definitions**

<b>Source</b>	<b>Definition</b>
McCutcheon and Jung, 1990:40	A systemic inquiry that is collective, collaborative, self-reflective, critical and undertaken by participants in the inquiry.
Kemmis and McTaggart, 1990:5	A form of collective self-reflective inquiry undertaken by the participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out.
Rapoport, 1970:499	Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework.

**Table 2: Action Research in practice – Incident 1**

<b>Principles of Action Research</b>	<b>Action taken</b>
<b>Issue/problem identification</b>	Observation of patterns of group formation in classroom  <i>Question:</i> do group activities and group formation impact upon the teaching and learning experience
<b>Plan</b>	Undertake mini research project to collect information on group interactions
<b>Act</b>	Pose research question  Determine data collection methods  Collect and analyse data
<b>Reflect</b>	Review results, examine findings to determine what they are showing, reflect on use of group activities
<b>Further action</b>	In view of student responses and learning experiences review the use of group activities that provide relevant experiences and reinforce learning.  Should any further action take place?

**Table 3: Action Research in practice – Incident 2**

<b>Principles of Action Research</b>	<b>Action taken</b>
<b>Issue/problem identification</b>	<i>Question:</i> is the use of case-based reasoning an effective teaching method?  What is its impact upon the teaching and learning experience
<b>Plan</b>	Undertake mini research project to collect information on students experiences with the use of case-based reasoning
<b>Act</b>	Pose research question  Determine data collection methods  Collect and analyse data
<b>Reflect</b>	Review results, examine findings to determine what they are showing, reflect on use of case-based reasoning
<b>Further action</b>	In view of student responses and learning experiences review the use of case-based reasoning  Should any further action take place?