

Research in Industry Case Studies : Action Learning ANZIIL Symposium, Brisbane 7 July 2003

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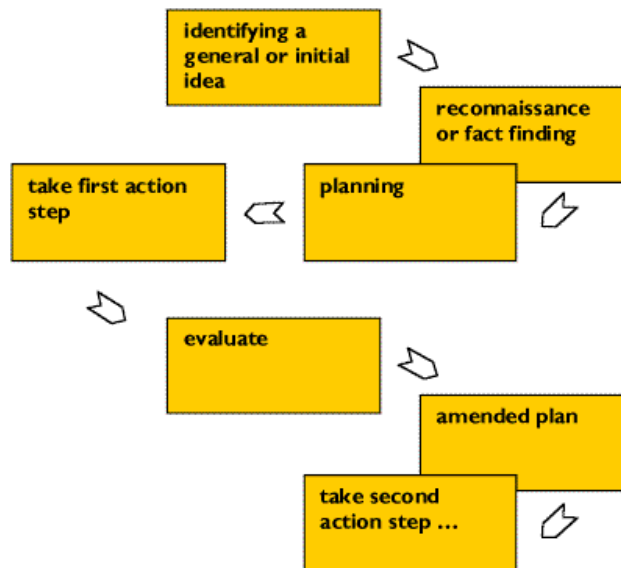
Intro

The **six step** information process model for life long learning of *defining, locating, selecting, organising, presenting and evaluating* is often in reality a **five step** model with the *evaluating* step rarely given any time or credence. Yet it is this last step which results in the most effective change. Action research will provide a framework for a measured response to problem solving and can result in a much closer questioning of the interplay between circumstance, change and consequence.

In any situation, work practice can become accepted and routine with little critical reflection on what happens, why it happens or investigation of the actual outcomes of workplace initiatives. While all employees are directed in their endeavours by organisational goals and outcomes, you can affect improvements through examination of your performance and work practices. Action research allows you as a practitioner, in this case as an IL professional, to step outside your routine and take the opportunity to reflect on what is being done and whether your intended outcomes match the actual outcomes.

What is action research??

Since first developed by Kurt Lewin in the 1940's, action research has built a reputation as being a methodology which encompasses both research and practice. Action research is sometimes simplistically depicted as a cycle where there is first an awareness of a problem, then some investigation, followed by action to remedy or minimise the situation, and after a time some evaluation to reassess the situation as it is after the change.



Mark K. Smith (1996) Action research : A guide to reading.
<http://www.infed.org/research/b-actres.htm>

Action research is in fact a "spiral of cycles"....you often take a "second action step, and a third action step and a fourth....." The spiral of cycles can be sequential or concurrent or both.

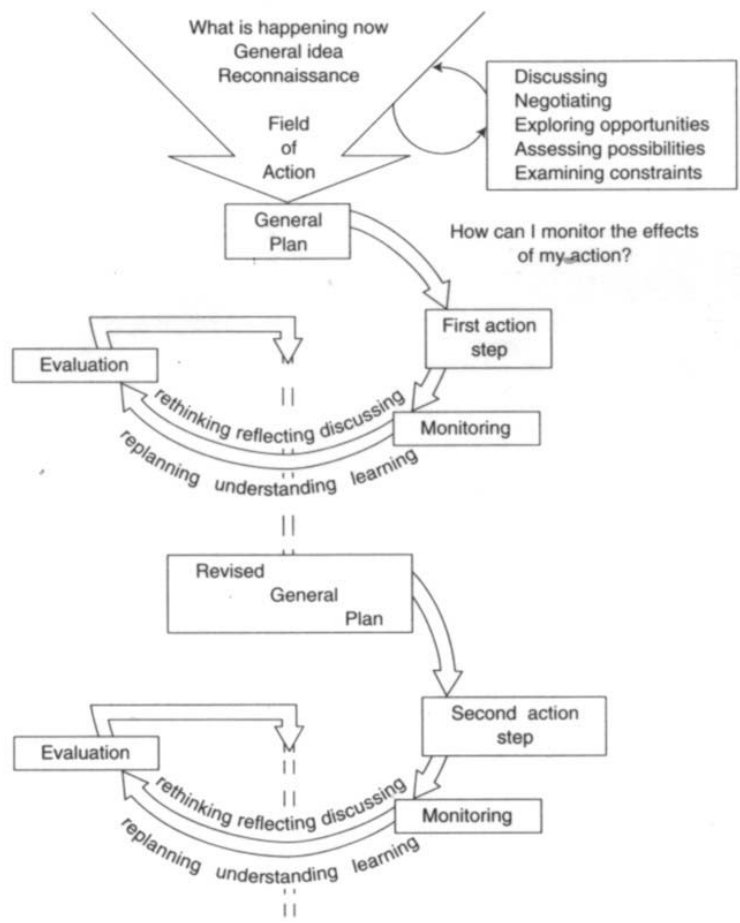


FIGURE 1-1 A Representation of Lewin's Action Research Cycle

From *Action Research in Retrospect and Prospect*, p. 29, by Stephen Kemmis, 1990. Victoria, Australia: Deakin University Press. Copyright ©1990 Deakin University Press.

Mills, Geoffrey E. (2000) *Action Research: a guide for the teacher researcher*. Prentice Hall, Inc. New Jersey p 17

When and why did I use action research?

During 1999-2000 I was employed at a Catholic girls' college in the ACT to introduce a "whole of institution" approach to information literacy. The aim was to use the library staff and resources as a vehicle to move IL out of the library and into the teaching practice of all staff. It was the first time in two decades of teaching and librarianship that I really thought about what I was doing, why I did it and how my actions effect the teaching and learning of others. After my action research project was finished, I knew how to plan for change, exactly how and what I did in my work practice, and I now know will how to plan for, determine and evaluate the effects of future initiatives. When I moved to ANU at the beginning of 2001, I was asked to use this research in order to affect a program with similar outcomes, albeit on a much larger scale!

How does action research as a methodology work??

Take a problem, large or small,
think about what's happening now
Get an overall view of the whole problem ('the general idea')
Look dispassionately and critically at the whole situation

Take a part of the problem
Work out a plan to solve it,
Start trying to solve it,
Keep an eye on progress

Work out if the plan worked overall.
Celebrate the good bits, amend the not so successful bits
Nibble at the next problem

ACTION RESEARCH RESPONSE:

Little Problem = one cycle but... BIG problems may need to be broken into several cycles, each of which has its own spiral – some concurrent, some sequential

Action research is a partnership approach

It is often that theorizing about change is done by a delegated group, and practice is relegated to another less powerful group. (Ritzer, 1996) the analogy is clear for education: the academics do the theorizing and general staff are "relegated" to doing the practice. Rifts between theory and practice can be minimized if the theorists and the practitioners work in close cooperation. The efforts of both groups will be enhanced if "theory is informed by practice, and practice shaped by theory".(Ritzer, 1996) IL professionals work at the forefront of putting educational theory into practice. Their workplaces have been critically affected by the change process into almost futuristic technology adapted learning environments (Sherman & Nous, 1998). Daily interaction with university students engaged in resource based and independent learning tasks brings them face to face with theories in the making.

An action research model where academics and IL professionals work together to embed Information Literacy into the curriculum might look like this....

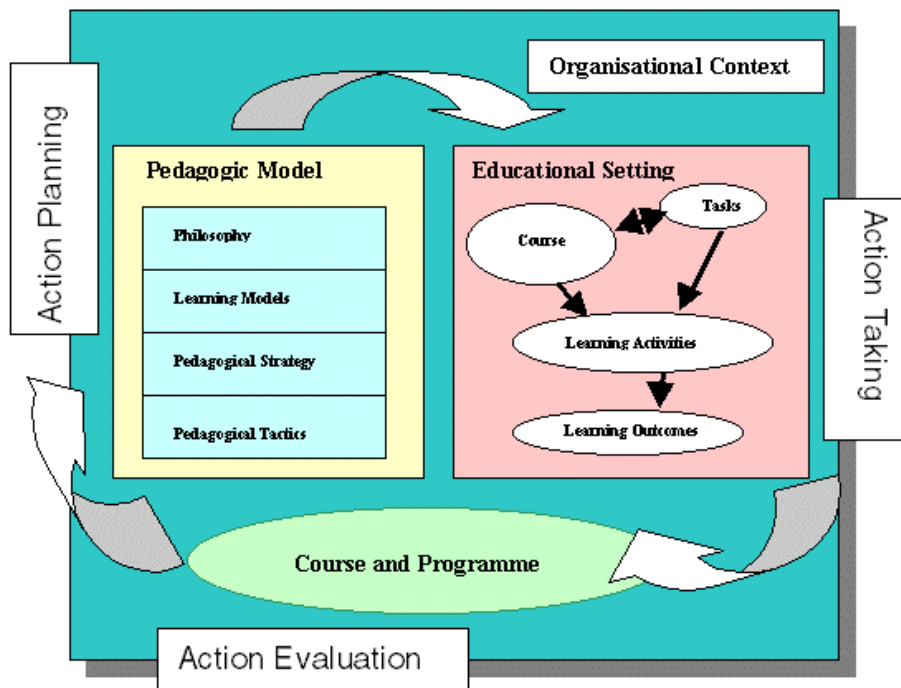


Fig. 2 - The EMAR CPDE Model

Miguel Baptista Nunes & Maggie McPherson: (2002) *An Action Research Model for the Management of Change in Continuing Professional Distance Education* in *Innovations in Teaching And Learning in Information and Computer Sciences*, VOLUME:1 ISSUE: 3
<http://www.ics.ltsn.ac.uk/pub/italics/issue3/nunes/008.html>

Why would IL professionals use action research?

There are many types of research: qualitative, experimental, quasi-experimental, survey, qualitative, historical, ethnographic, sampling, critical reflective, discourse analysis, non-observational and observational, narrative, as well as action research.

Simple mechanism

The cyclic methodology of Action Research means that you have a **simple mechanism** to design, implement, evaluate, "mend, amend or discard", redesign etc. The outcomes and evaluations can be analysed and remedial action taken. Problems are solved or minimised, corrections can be made, and subsequent outcomes clarified. Since the evaluation is thorough and immediate, potential difficulties can be contained and not repeated. Each spiral should take you closer to your goal.

Rigorous approach to owning and solving

A survey of the literature on action research reveals a number of core terms: "cycle", "reflective", "practitioner", "enquiry" "process", "learning". These terms have a distinct attraction in that they imply a rigorous and energetic approach to problem owning and solving: "I can achieve/change this" rather than "This is how this is done here". It follows a cycle of planning, action, observation, then reflection which means that the practitioner is integral to all phases of problem solving. Grundy (Grundy, 1982) refers to action research as a *spiral of cycles* through which an individual or an organisation can move through in order to affect ongoing educational, organisational or societal change.

Flexible

By its nature action research must be flexible, adaptive, tentative & evolutionary. This is especially if the area is undergoing rapid and substantial change such as the Information environment at a higher education institution. A fixed research methodology would mean that the findings would have little or any applicability by the time they were finalised.

Data collection

Libraries are especially wonderful places to collect both quantitative and qualitative data. The databases which control resource management collect a myriad of quantitative data such as the size and diversity of collections, usage patterns of different formats, as well as resources used within and outside the library space. The booking sheets and diaries record access, numbers of clients, programs, reference services etc. Students and lecturers are often available for survey and interview information needed for qualitative data. Students who are actively engaged in independent learning tasks can leave the IL professional free for a few moments to interview or fill out a survey page. University libraries can thus support the emphasis on evaluation in each part of a cycle with the overall Action research plan.

A collaborative process

Action research can help establish communities of academics and IL professionals who participate and collaborate in all parts of the change process.

Why wouldn't IL professionals use action research?

Internal validity

Because research done through Action research is often so context specific, it can often only possess internal validity because it is a one-off exercise within a specific context. Internal validity is paramount in action research. External validity may occur only if the information need has wider applicability.

Thorough literature review.

The *research* aspect of action research implies an academic rigour in order to understand the theoretical underpinnings of both the problem(s) and the solution(s). This necessitates a careful examination of traditional and current educational theories and the testing of those theories against a current situation. Action research must also then involve a thorough literature review. This can be very time consuming.

At least a triangulation of viewpoints

Action research must represent at least a triangulation of viewpoints: the broader situational umbrella (the University); the practitioner (IL professional and action researcher); and the purpose of the change (e.g. students addiction to Google!). Occasionally this may be more : the user, the instructor, the administrator and the organisation

A passionate and internal methodology

Action research is an intensely personal quest. The researcher is driven by the recognition of the need to change, also designs, implements the idea and then evaluates it. Unlike research, the ultimate aim of *action* research is to affect change in the practice of the institution – either through individual practice, small group interaction , peer workflows or even whole university approach to information literacy.

Conclusion

Action research may not be the perfect methodology but its problems cannot outweigh the simplicity, flexibility and "do-ability" of the model. Action research as a methodology has provision for the individual to work within a team but also for the individual to have the freedom to determine their own goals and ways of working towards those outcomes.

Some suggested readings

Deakin University. School of Education. Open Campus Program. (1982) *The action research reader*. 2nd Ed. Deakin University, Vic.

Baptista Nunes, Miguel & Maggie McPherson: (2002) *An Action Research Model for the Management of Change in Continuing Professional Distance Education* in *Innovations in Teaching And Learning in Information and Computer Sciences*, VOLUME:1 ISSUE: 3
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Mills, Geoffrey E. (2000) *Action Research: a guide for the teacher researcher*. Prentice Hall, Inc. New Jersey

Ritzer, George (1996) *Sociological Theory*. Fourth edition. McGraw-Hill, N. Y., USA

Sherman, Michael & Albert Noss (1998) *Information Technology in Professional Development Schools*. University of Pittsburgh, USA http://www.coe.uh.edu/insite/elec_pub/html1996/06preser.htm

Smith, Mark K (1996) *Action research : A guide to reading*. <http://www.infed.org/research/b-actres.htm>

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