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# The Learning Organization

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## **Action learning, action research and process management (ALARPM)**

Guest Editor: Ortrun Zuber-Skerritt

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## Abstracts & keywords

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### **Action learning, action research and process management (ALARPM): a personal history**

*Ortrun Zuber-Skerritt and Mary Farquhar*

**Keywords** Action learning, Action research, Process management

This paper is an edited version of an interview that presents information and insight into the background of ALARPM (action learning, action research and process management) not only as a field but also as a worldwide network association, thus facilitating understanding of the evolution and nature of these three concepts. The interviewee's responses reflect her personal perspective, informed by both life experience and a theoretical framework that conceives of ALARPM first as a philosophy, a theory of learning and a methodology, and second as a method and technique.

### **The concept of action learning**

*Ortrun Zuber-Skerritt*

**Keywords** Action learning, Experiential learning

This paper reviews the concept of action learning with reference to the classic texts by Reg Revans and texts that are likely to become classics, such as recent studies from the UK, Germany, Austria,

South Africa, Australia, North America and Latin America. Action learning is now an international field and this paper draws widely from this field. The paper focuses on defining the concept of action learning and revealing its underlying philosophical assumptions. The terminology, features and success factors of an action learning program are also considered.

### **The concept of action research**

*Herbert Altrichter, Stephen Kemmis, Robin McTaggart and Ortrun Zuber-Skerritt*

**Keywords** Action research, Model

Action research has been recognised for its breadth as a field of research practice and its depth as a discourse of theoretical insight. It does not have one neat, widely accepted definition. Points to some reasons for the difficulty of formulating a generally accepted definition of action research, and argues why action research should not be confined but should be both clarified for communication and open for development. The discussion stems from a working definition developed with participants in an international symposium that serves as a classic definition of action research. Presents several alternative approaches to resolution and argues for a judicious mix of pragmatism and flexibility in approaching the definition issue.

### **The concept of process management**

*Richard Bawden and Ortrun Zuber-Skerritt*

**Keywords** Organizational learning, Learning organizations, Process management, Action research, Action learning, Experiential learning

Presents a conceptual framework for process management of groups involved in action learning and action research. Discusses propositional, practical and experiential learning; and the concept of meta-learning (learning to learn) in relation to the "learning organisation". Presents a model of process management that concerns people and process, with implications for research in industry, government and higher education.

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## Guest editorial

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### The Guest Editor

**Ostrun Zuber-Skerritt** is Director of OZI (Ortrun Zuber International P/L) specialising in action learning and action research, leadership programs, postgraduate research training and supervision, including qualitative research methods. She is also Adjunct Professor of Griffith University, Brisbane, at Southern Cross University, Lismore, and at the University of South Australia, Adelaide, as well as Professor of Professional and Organisational Development in the International Management Centres Association (IMCA). After her under- and post-graduate studies in Germany she obtained three doctoral degrees in Australia: PhD in Literature (University of Queensland), PhD in Higher Education (Deakin University) and DLitt in Management Education (IMC, Buckingham, UK). She has published 25 books, over 30 book chapters, over 100 journal articles, paper and reports and produced over 50 video programs. She has been invited to conduct seminars and workshops in many universities in Australia, New Zealand, Hong Kong, South Africa and Europe (Germany, Austria, Holland, Sweden, England). Since 1992 Ortrun has been awarded over A\$1 million in external grants.

In the last two decades interest worldwide in action learning, action research and process management (ALARPM) has grown remarkably. Yet there is still a great deal of confusion around the meaning of these terms. Many people are also unsure of the usefulness and scientific value of the approaches to learning and research to which these terms refer. It is therefore appropriate to take up ALARPM conceptually, and with models for action learning and action research, as the special themes of the two issues that comprise this double feature. In this first issue the focus is historical and conceptual. ALARPM proponents hold intuitively that in the human and social sciences action learning, action research and process management are appropriate methodologies for integrating learning/research (i.e. understanding and advancing knowledge) with action (i.e. change and development). But some proponents often find it difficult to respond convincingly to questions rightly posed by opponents or sceptics:

- What is the meaning of action learning, action research and process management (ALARPM)?
- How do they differ from, and what are their advantages over, traditional learning and research?
- Why should we learn about action learning? Don't we use it all the time?

The articles in this issue aim to assist ALARPM proponents to answer these questions effectively by presenting the meanings and concepts of action learning, action research and process management in their historical and philosophical contexts. The articles in the next issue, Vol. 9 No. 4, follow on from this conceptual discussion by:

- (1) explaining the success of structured action learning programs designed and evaluated by professional teams; and
- (2) giving instructive examples of action research projects facilitated within action learning programs that can serve as models for those who are new to the field.

It is significant that action learning became popular in business and industry and was published in the management literature, while action research was practised mainly in schools, teacher training colleges and communities, and has been published in the education literature. The first International Symposium on Action Research in Higher Education, Industry and Government was



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# Action learning, action research and process management (ALARPM): a personal history

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*Ortrun Zuber-Skerritt and  
Mary Farquhar*

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## The authors

**Ortrun Zuber-Skerritt** is Director of OZI (Ortrun Zuber International P/L), Adjunct Professor at Griffith University, Brisbane, Australia, and Professor of Professional and Organisational Development in the UK-based International Management Centres Association (IMCA). **Mary Farquhar** is Associate Professor in the School of International Business and Asian Studies at Griffith University, Brisbane, Australia.

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## Keywords

Action learning, Action research, Process management

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## Abstract

This paper is an edited version of an interview that presents information and insight into the background of ALARPM (action learning, action research and process management) not only as a field but also as a worldwide network association, thus facilitating understanding of the evolution and nature of these three concepts. The interviewee's responses reflect her personal perspective, informed by both life experience and a theoretical framework that conceives of ALARPM first as a philosophy, a theory of learning and a methodology, and second as a method and technique.

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## Introduction

Action learning, action research and process management have developed independently, and conjointly through ALARPM, to make valuable contributions to learning and research. Yet this history is little known. Here we take an action research approach to uncover some of this history. We have adopted an interview format to reveal some of the personal dimensions involved in the origin and history of ALARPM, making fresh insights accessible to a wider readership.

Ortrun Zuber-Skerritt is a founding member of ALARPM (action learning, action research and process management). Mary Farquhar who initiated with Ortrun the First International Symposium on Action Research in Higher Education, Industry and Government in Brisbane in 1989, and who has collaborated with her on many projects, conducted this interview with Ortrun in Brisbane late in 2000. The interview was inspired by a conversation between Ortrun and Mary that highlighted the utility of this type of oral history for recording the development of ALARPM, about which almost nothing had been recorded to that time. We present here an edited version.

This interview focuses on three areas in which Ortrun has been involved personally and that are useful to understanding how ALARPM has been developed in the past two decades in particular:

- (1) Ortrun's personal understanding of action learning, action research and process management in relation to her own professional development;
- (2) her role in institutionalising ALARPM as a legitimate and highly useful research and development approach; and
- (3) her views on work required to develop the field further.

Accordingly the paper is structured under three headings:

- (1) personal understanding and development;
- (2) institutionalisation; and
- (3) the state of the field.



## Personal understanding and development

### MF

Let's treat this interview as a personal reflective piece on action learning, action research and process management or in short, ALARPM. What do you think ALARPM is? Academically, is it a field, a discipline, a method, or a state of mind?

### OZS

I don't like to think only academically when it comes to the notion of action learning, action research and process management, because I consider these concepts as an integrated framework. If pushed, I say it is now an academic field, not a discipline, but it is a multi- or interdisciplinary field. Yes, it is also a method for learning and development, i.e. personal, professional and organisational development and transformation. Is it a state of mind? Yes, and more than that, I believe. It affects the whole person largely through one's perspective of self: mind, soul, spirituality, ethics, values and worldviews, and hence actual behaviour.

### MF

How did you become interested in ALARPM?

### OZS

I became interested when I was working in a university with colleagues, most of whom believed in a paradigm of learning and research that differed from mine. These people were positivists in research and didacticians in higher education. My ideas and approach to learning, teaching and staff development were totally out of keel in this environment. My work was constantly attacked or ridiculed; I felt vulnerable and hurt most of the time.

For me this was a new and profoundly powerful Socratic experience since I knew intuitively that my philosophy had merit. I was alone, but deep inside I could not accept that majority views must be right, accepted or adhered to simply because of their majority status. I recognised that we should not leave a paradigm unchallenged simply because it is dominant. So I searched for like-minded colleagues and support, and I found them in what was then the School of Modern Asian Studies at Griffith University where I was

working in academic staff development at the time. You were one of these colleagues, Mary, and others included Professor Colin Mackerras, then Dean of the School; Nick Knight, now Professor and Head of the School (now called Asian and International Studies); Bob Elson, now Professor and Director of the Griffith Asia Pacific Council; and Alan Rix, now Professor and Executive Dean of Arts at the University of Queensland.

### MF

Who provided key influences on the early development of your thinking about ALARPM?

### OZS

Apart from colleagues I've just mentioned at Griffith University during the 1970s and 1980s, I was most influenced in the 1970s by scholars I met at conferences or whose work I had read, such as Fred Emery, Alan Davies, and Alistair Crombie at the Australian National University in Canberra. I was interested in their adult and workplace learning theories. In the 1980s I was influenced by people working in the Deakin School of Education, such as Stephen Kemmis, Robin McTaggart, Rob Walker, Colin Henry and John Smyth. I was impressed and challenged by their critical action research in education and teacher development. These people and their thinking were the catalysts for the development of my work from then on.

### MF

What about action learning?

### OZS

Around the mid-1980s after I'd conducted many collaborative action research projects in higher education in Australia, people in the audiences during my tour of invited lectures in Sweden repeatedly mentioned Reg Revans. They said that I was thinking and arguing like him, but I'd neither met nor even heard of him. So in libraries in Stockholm and Gothenburg I found books and references in Swedish, Norwegian and German. Back in Australia, I managed to find some of his books in English, but most were out of print. It was satisfying for me to read about action learning because it confirmed the learning and teaching principles and strategies that I'd

upheld despite derision from many of my colleagues.

**MF**

And how did you find Revans' ideas?

**OZS**

I was impressed by his writings and we've had written communication ever since (his on the typewriter or handwritten!). I visited him in his home in Manchester in 1986 and he gave me many of his books, including those out of print. In 1989 I was very surprised to find that Reg Revans' philosophy had substantially influenced the work of the International Management Centres Association (IMCA), a professional society founded in 1964 with headquarters in Buckingham, UK. IMCA is the world's first multinational business school that has been dedicated to action learning since 1982. The reason why IMCA and I were impressed with Reg Revans' ideas was because we agreed with his philosophy which he skilfully expressed in very simple terms:  $L = P + Q$ . He maintained that programmed knowledge (P) is useful for our learning from experts (teachers or professors in lectures or books), but it is not sufficient. We also have to learn from asking ourselves fresh questions or from "questioning insight" (Q). At school and university we mainly learn from P, but there are also many intelligent people who leave school early and become very successful in their careers as senior managers or CEOs, because they are good at learning from their experience. These people have welcomed Reg Revans' ideas of action learning and the IMCA's strategy of facilitating action learning programs leading to higher degrees, including Masters and Doctoral dissertations.

**MF**

How does action learning relate to action research?

**OZS**

After my introduction to Revans' work in the mid-1980s, over time I thought extensively about action learning, particularly in relation to my own approach with action research. In the late 1980s I came to recognise that the philosophy underpinning action learning was really very similar to that of action research. So I set out to learn more about how it had developed. I discovered that action learning had its origins in England with Reg Revans in

the 1930s and 1940s. Reg was then a Professor of Management Studies at the University of Manchester, working with managers in coalmines who learned with and from each other to improve working conditions and productivity. He summarised this work at the First World Congress on ALARPM in 1990, in his keynote address that I published as a book chapter and recorded in a video interview (Revans, 1991a, b).

How is action learning different from action research? Action research includes action learning and more. Action research is more systematic, strategic and rigorous. It can sustain extensive scrutiny and it's always made public through presentations and publications. The difference here is basically the same as the difference between learning and research generally – both are about acquiring knowledge but research pursues a more diligent, investigative inquiry and its purpose is also to create knowledge.

**MF**

You've told us about the origins of action learning in England. What are the origins of action research?

**OZS**

The inspirations that gave birth to action research are very similar to those that compelled Reg Revans towards action learning in the UK. Action research originated in the 1940s with Kurt Lewin's philosophy and methodology of finding ways to change or improve human and social conditions. He took his influence to the US after he emigrated from Berlin as a Jew during the Second World War. I think that Lewin's concepts are best summarised in the *Action Research Planner* by Kemmis and McTaggart (1988).

**MF**

Could you please summarise them for us here?

**OZS**

Yes. I think the most effective way is through five overheads that I prepared precisely for this purpose in my teaching. These summarise concepts of action research, the "thematic concern", action research steps, moments in action research and the types of outcomes from action research (see the Appendix).

**MF**

So have the traditions of action learning and action research developed separately in England and America?

**OZS**

Yes. As with many great ideas and innovations, action learning and action research developed in parallel, from about the same time in the 1940s and inspired by similar social and economic concerns. Both were born in western contexts, and derive from western industrial and social experience. And both have had to struggle against entrenched western intellectual traditions. But they were developed quite independently of each other in different countries, on different continents. Both were forgotten or at least set aside during and immediately after the Second World War but both were revitalised from the late 1960s, again independently, after about two decades of postwar recovery. Nevertheless people in the two camps had little communication with each other until 1990 with the first ALARPM World Congress that brought the separate strands together.

It's interesting now to see how Revans and Lewin developed their ideas independently in response to the social and economic problems of their time. I think that we still confront social and economic problems, but now the scale of these problems is global and the problems have become more homogenised. With this, more and more of us have ready access to almost instant communication with people near and far, so that people globally now share problems that in earlier times were more localised.

**MF**

What about process management?

**OZS**

Let's leave that till later in this interview when we turn to institutionalisation. I'll then talk about process management and how it relates to action learning and action research.

**MF**

What did you find most difficult about ALARPM when you started work in this area?

**OZS**

Ironically, what I needed to cope with what I found most difficult in my workplace was

precisely what I found most difficult about ALARPM. It was identifying, understanding, and then putting into practice the philosophy of ALARPM. I was forced to do this because in academia in the 1970s and early 1980s I was constantly having to justify the validity, usefulness and work relevance of my approach – action research – in theory and practice. I had no mentor and I didn't understand clearly the philosophical assumptions underlying the different paradigms that influence people's actions and reactions, and how and why they approach learning and research tasks. These philosophical shortcomings limited my ability to argue my case cogently and ultimately blocked my career development for almost a decade.

So from personal experience I consider it very important for academic staff and students to learn about and understand the deepest levels of inquiry: epistemology. I think this is especially so for postgraduates who usually have limited experience exploring epistemological issues and need what epistemological inquiry cultivates: the ability to argue persuasively. Postgraduates have to convince their examiners that their action research is valid and rigorous within the phenomenological paradigm.

**MF**

Can you explain your last point in more detail?

**OZS**

Epistemology is the branch of philosophy that deals with the nature and origin of knowledge. Epistemology asks questions that can force us to probe deeply into our consciousness and examine assumptions that are usually unrecognised, with questions like:

- What constitutes knowledge?
- How do we come to know?
- How do we learn?
- How is knowledge produced?

As Richard Bawden and I point out in our joint paper in this journal issue, there are at least three kinds of knowledge:

- (1) propositional or theoretical knowledge which is traditionally taught in schools and universities;
- (2) practical knowledge taught mostly in institutions of technical and further education or polytechnics; and

- (3) existential knowledge which is the realm of action learning.

Similarly, there are at least three kinds of learning:

- (1) theoretical learning (learning what);
- (2) practical learning (learning how to); and
- (3) existential, experiential learning (learning why).

These kinds of knowledge and learning fundamentally shape our knowing, doing and being respectively.

#### **MF**

So what are the implications of epistemology for learning and teaching practice?

#### **OZS**

I acknowledge that there are many academics in universities around the world whose teaching philosophy and practice are informed by theories of adult learning that encourage a learner-centred, problem-oriented approach. However from my observations of higher education institutions in many countries, conventional teaching philosophies and practices still predominate.

Conventionally, it is assumed that experts convey their knowledge to novices who acquire and accumulate that knowledge. You might have seen the caricature of the professor pouring a jug of information into the empty vessel, i.e. the student's head. In this view learning is perceived as a one-way operation of information transmission: input, process and output. Input is determined and prescribed arbitrarily by experts; output is usually measured in examinations; and the most successful method of passing exams is rote learning, no matter whether it leads to understanding (and retention beyond the exams) or not.

However, in action learning we recognise that people, especially adults, do not start with a *tabula rasa* – a blank mind. They have already acquired knowledge, skills, opinions and values through life experience, upbringing, and religious, socio-historical and cultural influences, through reflection on their trials and errors as well as their achievements, and thus through their personal constructs of phenomena that they're very familiar with. We try to explore these existing constructs and capabilities – the self as learner/researcher – first, and then build on them by asking

probing and guiding questions (the answers must be found by the learners themselves) and linking the learners' new knowledge to their existing knowledge.

#### **MF**

And what are the implications of epistemology for research?

#### **OZS**

Similarly, in human and social research it's traditionally assumed that only experts are capable of formulating a scientific hypothesis. They test this hypothesis by selecting and using certain variables, research methods, a convincingly large sample of "subjects" and control groups, and finally confirm or refute the hypothesis to produce knowledge. So in this approach the researcher is perceived as an expert – an "outside", "objective" observer who studies his/her "subjects" in controlled yet empirically valid situations, using "scientific" methods and achieving "objective", genuine and reliable results that can be generalised into objective knowledge or "fact".

Action research proceeds from quite different epistemological premises. These recognise that knowledge is not created through systematically testing hypotheses but rather it is a product of learning about learning: what it is and how to do it. In action research it is assumed that all people who seek to learn and are not mentally disabled are potentially "personal scientists". They are capable of creating knowledge on the basis of concrete experience by reflecting on this experience and formulating concepts and generalisations, then testing these concepts in new situations that provide new concrete experience and a new cycle of generating experiential knowledge. This is Kolb's well-known experiential learning cycle (Figure 1 on page 118 in "The concept of action learning", the following article in this journal issue).

#### **MF**

How have action learning, action research and process management influenced your career?

#### **OZS**

Once I recognised that epistemology was not only useful but in fact essential for my work in university staff development, I furthered my

study of the philosophy of science. I was influenced by certain paradigms and new traditions, such as the Frankfurt School of Critical Theory, the Deakin School of Educational Action Research, Action Science by Chris Argyris and his associates in the US, and Action Theory by Vygotsky Leontjev and his associates in Russia and Germany, as well as by Personal Construct Theory by George Kelly and his followers in the UK. This knowledge gave me the insights I needed for effective intellectual argument. I felt much more confident in my practice of university staff development, in my conference and seminar presentations, and in my writing. So I started publishing my work. When my papers were accepted for publication in internationally refereed journals and my books were accepted by reputable publishers such as Pergamon Press, Kogan Page and Gower in the UK, I was finally promoted from Lecturer to Senior Lecturer. I successfully applied for the position of Associate Professor in charge of staff development and organisational development at the University of Queensland, and after two years, I was invited by Southern Cross University to take up the position of Professor and Director of Research and Postgraduate Studies in the Faculty of Education, Work and Training.

So action research was instrumental for me in developing my career, in two ways really. It enabled me to respond convincingly to peer pressure that I prove my point, work harder, and argue more convincingly. And since it was predominantly through my publications that I was eventually accepted in academia, and promoted, I acknowledge what I've gained from action research in compelling me to publish my work. My PhD thesis in the mid-1980s is said to be the first thesis about action research in theory and practice in higher education. I'm told that my thesis lay the ground internationally for action research to be accepted as academic research and for many postgraduates across the world since then to follow my example by using action research for their own thesis.

#### **MF**

Do you think this has helped others?

#### **OZS**

Yes, I do. I'm always very pleased when I hear from people in many parts of the world who acknowledge the usefulness of my work in

their own learning, teaching, research and development. And I recognise that the educators whom I've trained in action research can have a multiplier effect through the students whom they train. I feel this is reward for my own hard work against traditional scholarship in the 1970s and 1980s. It's also proof to me that at times it can be not just legitimate, but in fact obligatory ethically, to challenge the dominant paradigm when our own judgement directs us to do this.

### **Institutionalisation**

#### **MF**

Ortrun, you and I conceptualised the first International Symposium on Action Research over discussion one night in January 1988. How did this Symposium lead to the First World Congress on Action Learning, Action Research and Process Management?

#### **OZS**

At the end of the Action Research Symposium, everyone present agreed that this event should be repeated on a larger scale, incorporating the other two related traditions, action learning and process management. I remember driving home from the venue with my colleagues who were at that time from Surrey University in the UK, Maureen Pope and Pam Denicolo. We were totally exhausted and Maureen wondered: "Why do we do this to ourselves? We could have had a holiday instead!" The question continues to resonate with me; I know why I did it then and still do it now. It's because I believe that ALARPM is making valuable contributions to the way more and more of us understand learning and research. I see that it contributes to education and other learning situations through encouraging active, self-reflective processes. This belief has fuelled my desire to secure for ALARPM the institutional legitimacy and academic recognition that I believe it truly deserves. So I convened the First World Congress on ALARPM the following year, drawing on like-minded colleagues and their connections in industry, government and higher education.

#### **MF**

What were the major difficulties with organising the First World Congress on ALARPM at Griffith University in Brisbane?

**OZS**

The biggest was funding; we had none.

**MF**

So how did you do it?

**OZS**

We – the Organising Committee – became a true action learning group, using action learning to advance its own cause. We were “comrades in adversity”, as Reg Revans would say. We discussed our funding and other problems and solved them in highly creative, collaborative ways. For example, we divided our outgoing mail into equal batches for dispatch through our respective organisations. It was not the most efficient process, but since we had no conference funding, this was our only way. Ron Passfield, our treasurer, invented a brilliant system for bronze, silver and gold sponsorships. It was successful, and we were able to employ UNIQUEST, the University of Queensland’s conference organising body, as organiser for our Congress. We needed 110 delegates to break even; we actually had 360 who attended!

**MF**

How and when did action learning, action research and process management become ALARPM?

**OZS**

It happened over time, between 1989 and 1992. As I mentioned earlier, I was involved in action research for many years before I discovered action learning, which confirmed my previous theories and practice. I was involved in a special interest group called the Process Management Group (PMG) that met at least once a month at the Queensland Institute of Technology (now a university: QUT) and Griffith University. We discussed innovative methods of managing and facilitating processes of learning and development. This is process management. The participants in these PMG workshops were professionals from many sectors. We were all interested in learning from and with each other, discussing why and how to facilitate learning (rather than “teaching” and “training”), and sharing the problems and difficulties in our actual practice. I offer more on process management in the article I’ve

co-authored with Richard Bawden in this journal issue.

**MF**

Does the Process Management Group still meet?

**OZS**

No, it no longer exists. It has been subsumed by the wider action learning and action research community that shares its aims and concerns. In the First World Congress in 1990 we brought together for the first time:

- the three separately developed traditions of action learning, action research and process management; and
- professionals from various sectors engaged in professional and organisational or community development through processes of ALARPM.

Most of these people were working in education, higher education, technical and further education, government research departments, training and development agencies, human resource management and consulting firms. Others were small- and medium-sized business owners and consultants in large corporations.

**MF**

When was the ALARPM Association established?

**OZS**

At the Second World Congress in 1992, also in Brisbane, but this time at the University of Queensland. Ron Passfield was the first elected President of the Association and remained in this position for seven years until 1999 when Iain Goven was elected to replace him. Now in 2000 Yoland Wadsworth is the president, and ALARPM has meantime become a worldwide movement. For example, at the Fourth World Congress in Cartagena (Colombia) in 1997 there were over 1,800 delegates from 61 countries. At this event we combined ALARPM with the PAR (Participative Action Research) Eighth National Conference in the Americas. The Fifth ALARPM Congress was held in Ballarat, Victoria, in September 2000; the next ALARPM World Congress will be convened by Professor Pieter Du Toit at the

University of Pretoria (South Africa) in October 2003.

**MF**

Even with this worldwide organisation, do you think ALARPM is accepted in mainstream management circles?

**OZS**

When you say “mainstream management circles”, do you mean:

- management in the private sector or;
- private business schools; or
- graduate schools (or colleges) of management in universities?

**MF**

All of those.

**OZS**

Let me comment on each group in turn, since these responses are mixed. First, management circles in business and industry. In general and in my experience, they have long recognised and confirmed that processes of ALARPM are not only appropriate, but are also a very effective method for long-term professional development and are a means for responding rapidly to organisational challenges that require fast action, change or transformation. So that’s the first circle, the private, commercial sector.

The second circle, private business schools, is generally more responsive to business and industry needs than university departments because these schools rely on full-fee paying students. Private business schools have been more open than universities to new methodologies such as ALARPM since they have the imperative to give their clients maximum benefit and satisfaction from the client’s investment in constructive workplace management. A good example is the International Management Centres Association (IMCA) that I mentioned earlier. It’s a private business school and a professional membership organisation dedicated to improving personal and organisational performance via action learning. My colleague Faith Howell and I conducted research into the effectiveness of MBA and Doctoral programs in the Pacific region and the relevance of these programs to industry over a five-year period (Zuber-Skerritt and Howell, 1993), and we found that both the individual associates who

had participated in these IMCA programs and their sponsors (i.e. the CEO or top management in their organisations) appreciated the IMCA philosophy and processes of action learning. They were enthusiastic about the learning outcomes for themselves and for their organisations. But they also would have liked these degrees accredited by universities or state bodies.

However, many teaching academics in graduate schools of management in universities, the third circle, are still reluctant to accept process oriented approaches to learning and research. They insist on covering a certain curriculum content and on teaching the theory of the field. Being university academics in a relatively new field – management – they feel they are under pressure to demonstrate that they’re as “scientific” and grounded in theory – as “academic” – as their colleagues in other disciplines. So they’re in a difficult situation. They experience the old battle between the two competing paradigms in the social sciences. Some of them remain secure in the traditional positivist paradigm of knowledge transfer from expert to novice; others venture into the new paradigm of creating “grounded theory” based on data and reflection on experience. I discuss this further with Chad Perry in our joint paper in *The Learning Organization*, Vol. 9 No. 4 (Zuber-Skerritt and Perry, 2002).

**MF**

So how do you see ALARPM surviving and being accepted in private business schools and maybe even more widely in universities?

**OZS**

I think this legitimisation is already under way. Primarily it’s because of the strengths of ALARPM that are evident at this time in our history. But it’s also hastened by the hand of the market. As public funding for higher education diminishes, even the most conservative educational institutions will come to realise that their traditional philosophy of learning is outdated (at least in the social and human sciences) and requires revision or perhaps complete overhaul premised on quite different assumptions about knowledge and learning.

Traditional learning philosophies are largely irrelevant to the needs of industry and society in the twenty-first century, so they don’t

appeal to full-fee or part-fee paying learners who demand value for both the money and time they invest in their study. This “investment” rationale is particularly strong among mature-age, part-time students whose numbers are likely to increase when full fees are introduced. So we can expect to see a shift from lecturer- and content-oriented teaching to process-oriented facilitation of learning, as the competition intensifies among education providers – universities and private schools and colleges – to attract these students’ business. This type of learning is more relevant to the needs of both the learner and the organisation he/she is working in and ideally sponsored by. The pedagogical shift is justified theoretically and confirmed in the adult-learning literature. Incidentally, Knowles (1985) coined the term “andragogy” for the science of adult learning as opposed to pedagogy, the science of child learning. It’s a pity he made the mistake of using the prefix *andro* (Greek for male, man) instead of *anthropo* (Greek prefix for human, people). Anthropology would truly reflect the people-centred nature of this new field of study, rather than indicating that it’s for men only! But why not simply refer to the field of “adult learning”?

#### **MF**

What will happen if universities resist this shift?

#### **OZS**

If universities don’t change their management education and adapt to the needs of business and industry, university reputation will suffer and student numbers will decline. This is very likely to induce a situation where university accreditation will no longer be warranted. Clients will prefer private business education by private providers. Again IMCA is an example. In England it is an accredited institution of the British Accreditation Council (BAC) for Independent Further and Higher Education, which gives IMCA the endorsement of the British Council. In the US, IMCA’s newly established University of Action Learning (UAL) with its headquarters in Boulder, Colorado, is listed and approved by the State of Colorado Commission on Higher Education. The UAL is also accredited independently by the Washington-based Distance Education Training Council (DETC), which is

recognised by the US Department of Education and the Council for Higher Education Accreditation (CHEA) as a national accrediting agency.

So in this field university accreditation might soon be irrelevant, redundant or even undesirable, depending on how graduate schools of management develop in the future. There are encouraging signs from some progressive university schools and colleges that have already introduced action learning programs and action research projects in their curriculum – for example, the University of South Australia and the Southern Cross University in Australia.

To come back to your question about university resistance to ALARPM, I think it’s no longer a question of whether ALARPM is accepted by mainstream management circles. It’s now a question of whether ALARPM customers accept the paradigm, strategies and methods of mainstream management circles. We see here the classic economics of supply and demand since it’s these customers – learners and often their corporations – who create the market demand that will sway the supply of educational service; i.e. pull it towards ALARPM. The learning tide has already turned. This was confirmed by the Karpin Report (1995) that criticised traditional management education in Australia and recommended, among other things, action learning programs as one of the main strategies for renewing Australia’s management and leadership skills “to meet the challenges of the Asia-Pacific century” and its global competitive advantage.

#### **MF**

And that’s what we’re doing in the Australia-South Africa Links Project: “Leadership Development for South African Women Academics through Action Learning and Action Research”.

#### **OZS**

Yes, that’s an excellent example. And another one is our joint project with Chinese language teachers at Griffith University for which you and I received a grant from the NPRF (National Priority Reserve Fund) in 1993. These programs seek to introduce and develop acceptance of the paradigm, strategies and methods of ALARPM within institutions of higher education.

## The state of the field

### MF

The field of ALARPM is criticised as theoretically thin. What do you think?

### OZS

I think this assessment is indicative of the continuous struggle that ALARPM undergoes in the academic domain, where many assess ALARPM through a lens shaped by quite different pedagogical premises – usually tendentiously. We also need to recognise relativity here. Action learning, action research and process management is a new field within the social sciences, which as a broader categorisation is itself relatively new when compared with traditional sciences like the natural sciences. So in this sense it's not surprising that by comparison with these older fields ALARPM is not as established, institutionalised and theoretically rich. Yet it's not as theoretically "thin" as some critics portray. It already has a strong theoretical basis that's continually being developed. By its very nature ALARPM advocates reflective learning on past experience to inform further action. It therefore cannot be one grand theory, as conventional theory may expect. It must comprise a complex network of related and inter-related theories that contribute to and strengthen the field. The main philosophical pillars of this theoretical framework include action science, personal construct theory, systems theory and critical theory, as well as theories of EQ (Emotional Intelligence versus IQ) and of values/worldviews.

In action research, for example, these theories may inform the action researcher, but more importantly – and this is a critical difference between action research and traditional research – action research generates theory not only about practice, but through practice. This is why action research has become recognised as a useful mode of human inquiry in situations where we are as active in changing situations as we are in explaining the situation and those changes. It's also why action research requires intellectual skills different from those used in conventional academic tradition. Action research integrates action (change) and research (explanation, understanding) so it's suitability depends on the task at hand.

### MF

Action learning and action research are often marketed as a solution for the "real world". I have a problem with this description since it insinuates that academia is "unreal" and the business world is "real". In my fields of Chinese Studies (film, literature and cross-cultural communication) and Law, we know that "reality" is a construct, a perception, and that it's often manipulated. So this understanding about "the real world" is now outmoded. How could we recast ALAR?

### OZS

I fully agree with your observation and I recognise that it also applies to ALARPM. "Reality" and "truth" are theory-dependent constructs and may vary from person to person. When the business world conceives of academia as "unreal", with academics confined to their ivory tower, it is probably – as Richard Bawden once explained – because academics see their role as generating theory about action, and not mixing this role with generalising theory in and through action.

So to recast the notion of action research, I suggest that we distinguish between research that yields theory/information only, and research that yields theory/information as well as improved practice (action, change). The latter is action research. I have defined action research in my CRASP model (Zuber-Skerritt 1992a, p. 2; b, p. 15) as follows.

Action research is: Critical (and self-critical) collaborative enquiry by Reflective practitioners being Accountable and making the results of their enquiry public, Self-evaluating their practice and engaged in Participative problem-solving and continuing professional development.

### MF

Do you think that the method sits somewhere between (educational/management) rationalism and entrepreneurial individualism? That perhaps it introduces an empowered sense of community into the workplace?

### OZS

I think this question is inspired by recognition of the crucial roles of collaboration and risk-taking in this method. However, I think the method of action learning and action

research is definitely not located in rationalism or in entrepreneurial individualism, but in what our colleagues at Griffith University, David Limerick and his associates, used to call “collaborative individualism”. This means empowerment of the individual and clear recognition of the interdependence between individuals in “the new organisation” of the present and future.

On the basis of their research, these authors identify a number of key characteristics, competencies and skills of collaborative individuals that they develop in greater detail in their book (Limerick and Cunnington 1993, pp. 114–59): autonomous, proactive, empathetic, intuitive and creative, transforming, politically skilled, strong at networking, and mature. These are also key characteristics of action learners and action researchers.

#### MF

So, should we call ALARPM something else?

#### OZS

That’s a very difficult, complex question. I’ve asked it often myself when I’ve tried to avoid using the “action” terms, especially in competitive grant applications to be judged by traditional academics.

But why should we change the terms and language to suit traditional academics? I think we must remain truthful to our paradigm and practise what we preach. I recognise considerable potential for traditionalists to eventually recast their fields of endeavour to include ALARPM in theory, practice and praxis. That is my optimistic view, and it is happening already. I think that ALARPM proponents will use their paradigm to institutionalise ALARPM further as a legitimate approach. Ironically it’s because ALARPM offers ways for action/change as well as critique, that ALARPM can induce change in the dominant paradigms that try to subvert it.

The three separate traditions that were brought together in ALARPM took many years to gain ground. But synthesised as ALARPM, they’ve really gained credence in academic and business circles in the past decade. I think this augurs well for ALARPM in the years ahead. I’m especially optimistic since we’re living in times of rapid technological and social change, precisely when the strengths of ALARPM are best

demonstrated. The only recommendation I would make is to change the name from ALARPM to ALAR since process management is integral to both action learning and action research.

#### MF

On that optimistic note, let’s finish this interview. Thank you, Ortrun, for your time.

#### OZS

My pleasure. Thank you for the opportunity to discuss the field.

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### Appendix

This Appendix summarises in point form some key features of Kurt Lewin’s work on, and through, action research:

- concepts of action research;
- the “thematic concern”;
- action research steps;
- moments in action research; and
- types of outcomes from action research.

#### **Appendix 1: Lewin’s concept of action research**

- (1) Conceptually crucial are the ideas of *group decision* and *commitment to improvement*.
- (2) Those affected by planned changes have the primary responsibility for:
  - deciding on courses of critically informed action that seem most likely to maximise improvement of practice; and
  - evaluating the results of strategies tried out in practice.

#### **Appendix 2: Thematic concern**

- Action research is participatory, collaborative research that typically arises from the clarification of some concerns generally shared by a group.
- Participants describe their concerns, explore what others think, and probe to find what it might be possible to do.
- In discussion they decide what is feasible to work on, i.e. a group project.
- The group identifies the project’s thematic concern.

#### **Appendix 3: Action research steps**

- Reconnaissance – initial reflection on your situation in light of thematic concern.

- Planning for improvement.
- Enacting the plan and observing how it works.
- Reflection – analyse, synthesise, interpret, explain, draw conclusions.

#### **Appendix 4: The four moments of action research**

- (1) *Planning* critically informed action to improve what is already happening.
- (2) *Acting* to implement the plan.
- (3) *Observing* the effects of critically informed action in the context in which it occurs.
- (4) *Reflecting* on these effects as a basis for further planning, critically informed action and so on, through a succession of cycles.

#### **Appendix 5: Types of outcomes from action research**

In action research we look for changes in three different aspects of individual work and the culture of groups:

- (1) Changes in the use of language and discourses – how people actually identify and describe their world and work.
- (2) Changes in activities and practices – what people are actually doing in their work and learning.
- (3) Changes in social relationships and organisation – how people interrelate and how their relationships are structured and organised within the organisation.

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# The concept of action learning

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*Ortrun Zuber-Skerritt*

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## The author

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## Keywords

Action learning, Experiential learning

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## Abstract

This paper reviews the concept of action learning with reference to the classic texts by Reg Revans and texts that are likely to become classics, such as recent studies from the UK, Germany, Austria, South Africa, Australia, North America and Latin America. Action learning is now an international field and this paper draws widely from this field. The paper focuses on defining the concept of action learning and revealing its underlying philosophical assumptions. The terminology, features and success factors of an action learning program are also considered.

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## Introduction

Action learning involves learning about learning, and using this to learn. There is no single definition of “action learning” that is accepted generally. Yet, there is an agreed understanding of the nature of action learning. Whenever I ask participants in my action learning programs or workshops to identify the main characteristics of this concept, they always come up with common elements, such as:

- learning by doing;
- experiential learning;
- reflecting on practice;
- being open;
- sharing ideas;
- collaborating;
- synergy;
- learning to learn;
- life-long learning; and
- learning in the workplace.

These observations indicate a process of learning in an active way.

More than two decades of experience – indeed, my action learning about action learning – has taught me that each action learning program is distinctive. This is because the action learning program depends on the context and organisational culture in which it is located, on the purpose/s for which it is designed, and on the existing constraints that may or may not be possible to overcome. There are, however, general features and guidelines that are valid for most programs.

In this paper I seek to clarify the concept of action learning by offering a concise summary of my own definitions and descriptions of action learning and its underlying philosophical assumptions, with reference to my previous publications (Zuber-Skerritt 1991; 1996a, b). I also cite definitions from classic texts that I consider important in this field. I present the terminology and key features of an action learning program and provide some evidence of the success of these programs in large organisations.

## Definitions and underlying philosophical assumptions

Action learning, in brief, is learning from concrete experience and critical reflection on that experience – through group discussion,



trial and error, discovery, and learning from and with each other. It is a process by which groups of people (whether managers, academics, teachers, students, or “learners” generally) address actual workplace issues or problems, in complex situations and conditions. The solutions they develop may require changes to be made in the organisation, and these solutions often pose challenges to senior management. But the benefits are great because the people participating accept that they actually own their own problems and their own solutions. By comparison with situations where solutions are devised by senior management on the basis of “expert” recommendations and advice, action learners are more likely to act on their own solutions and to implement the desired changes. In action learning, learners themselves develop as experts on the problem or learning task and on how to solve or conduct it.

In contrast to action learning, the traditional, enduring view of learning has assumed that knowledge must be transmitted and received in the form of information, theories and research findings, and after reception learners can apply the knowledge to their own purposes. Here learning is an external, objective process. It is a fairly recent pedagogical insight that learners at any level can acquire knowledge – and produce it – through their own active search and research, following a problem-solving process similar to that of specialist researchers. Action learning recognises the possibility for learners to generate knowledge rather than merely absorbing passively the results of research produced by specialists.

Action learning is individual as well as social and job related. Learning from one’s own experience can be powerful but it can also be inefficient if it is not followed through by formal and systematic opportunities to conceptualise the effect of this experience. On the other hand, formal training and development, especially in management and higher education, have been criticised for being too abstract and irrelevant to the participants’ practical work. Action learning provides a flexible and systematic method to conceptualise learning from experience. Because action learning is concrete and concerned with learners’ actual experiences, it is immediately relevant to their practical

work. Although interest in action learning faded in the early postwar years of the mid-twentieth century, under the primary concerns of recovery from war, action learning has been revitalised from the 1970s. And when we recognise its utility, especially through its flexibility, we see how action learning offers a pragmatic response for managing problems effectively and learning in the twenty-first century.

Action learning can be used to great advantage when no one knows the solution to a shared problem, or when no one knows the way forward in a complex situation. Action learning is inappropriate when answers are straightforward, already known, or can be found more simply, cheaply and quickly (e.g. by computer programs). It is also unsuitable when the person or group of people with final responsibility for decision making are determined to prevail regardless of the outcome. Action learning programs must be supported and encouraged by senior management. As one participant in my workshop on cultural change in a public-sector organisation put it (Zuber-Skerritt, 1997a, p. 6):

The concept of action learning is inseparable from the question of empowerment of staff, which is inseparable from the question of organisational position and authority. Action learning cannot proceed while existing power structures remain in place.

Ideally, the action learners’ vision aligns with the organisation’s mission and goals. This facilitates transformation and integration of personal/group learning and organisational development or change, leading to the creation of a learning organisation. Limerick *et al.* (1994, p. 35) define the action learning organisation in terms of its essence:

The essence of an action learning organisation lies in a widely distributed capacity to question and re-define both individual and organisational identity. It is this unique autonomy of individuals that is the fundamental hallmark of an action learning enterprise.

Passfield (1996, p. 50) refers to a process in his definition:

Action learning is a process of collaborative transformation in which members of a social system transform themselves and their social system through participative reflection-in-action.

I have been most influenced by Revans’ (1982; 1984; 1991a, b) offerings on action learning. For example, I have often quoted his

equation for learning:  $L = P + Q$ , i.e. learning is programmed knowledge plus questioning insight. Revans (1984, p. 16) explains:

P is the concern of the traditional academy; Q is the field of action learning. . . . On the whole, however, programmed knowledge, P, already set out in books or known to expert authorities, is quite insufficient for keeping on top of a world like ours today, racked by change of every kind. Programmed knowledge must not only be expanded; it must be supplemented by questioning insight, the capacity to identify useful and fresh lines of enquiry. This we may denote by Q, so that learning means not only supplementing P but developing Q as well. It is arguable which is more important in 1984; the evidence is that a surfeit of P inhibits Q, and that experts, loaded with P, are the greatest menace to adaptation to change by questioning, Q.

I believe that Revans' concepts are still valid early in the twenty-first century. When I show his video interview with Denis Loaney and John Mahoney (Revans, 1991b) in my action learning programs or workshops, the feedback from participants is always positive because the video helps them to understand the philosophy of action learning; and they are stimulated to think about the implications of Revans' concepts for their own learning and professional practice.

It is useful here to introduce books on action learning that are especially worth noting. Revans (1980) – now out of print – presents his basic philosophy, especially in the chapters he referred to in his keynote address at the First World Congress, namely:

- “Small is dutiful” (about the human element in the organisation of coal mines);
- “The book and the tool” (Revans' harsh criticism of management education);
- “The vocabulary of managerial confrontation” (about concepts such as the learning process, information, risk, the importance of values, and the quality of systems).

Revans' main classic text, however, is *The Origins and Growth of Action Learning* (1982), a collection of 52 articles published from 1938 to 1981. This collection is not really suitable for those who are new to the field of action learning, but it is useful as a reference book for investigating the milestones in action learning generally, and for looking into specific topics, such as hospitals, coal mines and workers' participation.

Revans' (1998) book, *ABC of Action Learning*, is the latest classic on this subject, collated by Pedler in a first edition in 1978.

This concise book explores characteristic assumptions of action learning:

- essential logistics (forms of conducting action learning programs);
- characteristics of managers;
- the influence of top management;
- philosophy of action learning;
- what action learning is not;
- some experiences in starting action learning programs; and
- the organisation as a learning system.

The Appendix presents the latest updated list of Revans' better and less known publications.

Revans' (1988) *The Golden Jubilee of Action Learning* is a collector's item. It is a collection of five papers that he produced in 1988 at the invitation of a group called MALEx (Manchester Action Learning Exchange) based in the Manchester Business School.

The five papers are:

- (1) “Action learning in its range and variety”;
- (2) “Fifty years on”;
- (3) “Action learning and the freshmen”;
- (4) “Action learning and the third world”;
- and
- (5) “From cleverness to wisdom”.

There is no publisher registered, but it is clear from the foreword by Albert Barker and Barry Caidan and from the postscript by Janet Craig that the book was printed and bound at the University of Manchester in 1988. The fourth paper is of particular interest to communities and organisations in developing countries, as are the works of Orlando Fals Borda (Fals Borda and Rahman, 1991; Fals Borda, 1998) and Paulo Freire's 1972 classic, *Pedagogy of the Oppressed*.

Among the books Reg Revans kindly gave me, two are noteworthy for Management and Business Education. The first (Revans, 1971) is discussed in my joint paper with Perry in *The Learning Organization*, Vol. 9 No. 4 (Zuber-Skerritt and Perry, 2002). The other (Revans, 1980) is *Action Learning: New Techniques for Managers*. It contains:

- insights from his various projects (Coal Board, hospital, Belgium Foundation “Industrie – Université”, Nile, India, Australia);

- his studies, including the famous paper “Small is dutiful”;
- pamphlets on social and educational issues stressing the importance of workers and their participation in action learning; and
- logistics and methods, including his renowned piece, “What action learning is not”.

In brief, *action learning is not learning from experts, case studies, simulations and games, but from and with each other in the workplace here and now* (emphasis added). To quote Revans (1980, pp. 309-10):

... action learning is about real people tackling real problems in real time, observing the impartial discipline of the business setting and looking after a lot of people ... The action learning fellow will argue: “So-and-so has convinced me: I will follow his example.” The operational research professional will argue: “So-and-so has proved it; I now understand how to do it.”

There are many useful texts by other authors as well. For example, the book by Pedler (1997, extending here his first edition of 1983) contains contributions from himself, Reg Revans and many other authors. This book sets out the state-of-the-art in action learning, including reports on experiences from many countries, e.g. mainland China, the Czech Republic and the US, as well as a literature review by Alan Mumford.

Mumford’s (1997) *Action Learning at Work* contains contributions mostly by himself (34) and from his colleagues in the International Management Centres (IMC), a private business school and professional association focussing on action learning. The book is about:

- starting points;
- theory and assumptions of action learning;
- learning to learn;
- learning supported by others; and
- the effectiveness of action learning.

Weinstein’s (1999) *Action Learning: A Practical Guide* is also essential reading on the philosophy of action learning and practical issues, based on feedback from many participants in action learning programs. The former participants’ enthusiasm for action learning is counter-balanced by criticism and disappointments. Weinstein worked as a journalist and is now an action learning

consultant in the UK and secretary of the International Foundation for Action Learning (IFAL). With this experience she has produced a very readable book. Other useful action learning guidebooks are those by Rothwell (1999) and Marquardt (1999).

Sankaran *et al.* (2001) look at the concepts, frameworks, processes and applications of action learning (and action research) for effective change management. They have gathered the views of experienced academics, managers and consultants from around the world to create an invaluable resource for practitioners, managers and consultants as change agents and also for research students and supervisors interested in qualitative research methodologies.

Taylor *et al.* (1997) from South Africa provide a solid foundation for facilitators of action learning at the individual, institutional, community, district, provincial and national levels. The authors explain how to build on people’s existing knowledge and insights, and create opportunities for growth in effective leadership. The book’s dedication by the authors reads:

This book is dedicated to all the leaders and people of South Africa who have devoted themselves to learning from past experience in order to create a future which will inspire the world.

Indeed, this book will be of interest to anyone in any country who is interested in action learning to create a better future world. The book is accompanied by an action learning field kit by Taylor *et al.* (1998), with case studies of development issues and the problems faced by development workers in South Africa, the Caribbean, and Latin and North America.

For readers of German language, Donnenberg (1999) is an excellent action learning handbook, the most comprehensive reference book on action learning with original contributions by German action researchers and with German translations of texts by Reg Revans, Mike Pedler, Marcel van der Ham (Director of the Business School Netherland and of the International Management Centre, Holland) and others. The cover of this book offers a useful explanation of the nature and importance of action learning, so I provide an English translation here:

Accumulated information and knowledge consist of solutions to yesterday's problems. In today's rapidly changing world we must rely on our learning through experience here and now. Therefore there is a growing need in organisations to improve the possibility of workplace learning and organisational initiatives. The effectiveness of this learning is still to be developed. . . . Action learning means action-oriented learning in organisations, learning to solve real, not simulated, problems, and cooperative learning with work and business partners in the concrete work context/environment.

The term "action learning" is often used as a synonym for "experiential learning" since the implications of these terms are similar and the two share philosophical assumptions. Learning through reflection that questions one's own insights and actions assumes that people can gain and create knowledge, as well as their own personal theory for a learning/problem-solving task, on the basis of their own concrete experience. This is done through the learner observing and reflecting on that experience, forming abstract conceptualisations and generalisations, and testing the implications of these concepts in new situations. The last stage will produce new concrete experience for the learner and hence the beginning of a new cycle of observation, reflection, conceptualisation, testing, and new action and experience. Figure 1 illustrates this cycle (Kolb 1984, p. 21).

Action learning is conceptually simple. It offers us a method of raising our learning from the unconscious to the more conscious levels through techniques of questioning that probe and illuminate what many of us often assume or ignore about our own prefiguring

of what we learn. This conscious use of the learning process can thus make tacit knowledge more explicit. Action learning does not ask definitive questions that prompt such answers as "yes"/"no", "right"/"wrong", "good"/"bad". The action learning process is essentially developmental in that it encourages creative, innovative thinking by asking open-ended questions about how to improve or recreate what matters to us:

- aspects of our physical, social, political or economic environment;
- our organisation;
- our working lives; and
- our future workplace practice and so forth, particularly through involvement in groups however formal or informal.

Action learning is therefore not just self-aware but also to some extent self-interested, since learners themselves have a vested interest in the outcome.

I finish this section with an often-cited piece from Pedler (1997, pp. xxii-xxiii) that usefully summarises and puts some flesh on the conceptual bones of our discussion here concerning definitions and philosophical assumptions of action learning:

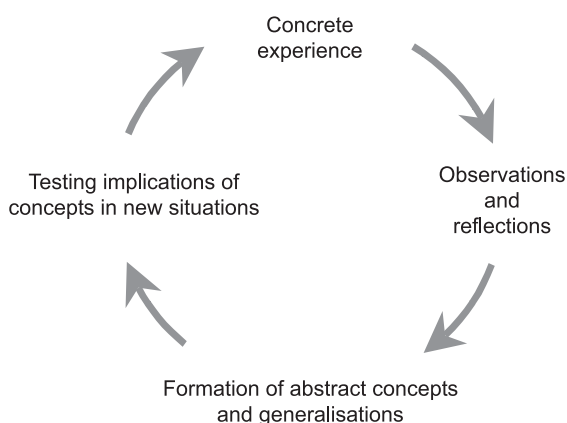
Action learning is an approach to the development of people in organisations which takes the task as the vehicle for learning. It is based on the premise that there is no learning without action and no sober and deliberate action without learning. On the whole our education system has not been based upon this principle. The method has been pioneered in work organisations and has three main components – people, who accept the responsibility for taking action on a particular issue; problems or the tasks that people set themselves; and a set of six or so colleagues who support and challenge each other to make progress on problems. Action on a problem changes both the problem and the person acting upon it. It proceeds particularly by questioning taken-for-granted knowledge.

### Terminology and features of an action learning program

As in the emerging terminology of action learning, the above citation from Pedler (1997) identifies the three main components of action learning as:

- (1) the client or sponsor who supports the program/project(s) financially and morally;

Figure 1 Kolb's experiential learning model



- (2) the project whose aims and tasks are to solve a significant and mostly complex problem in the organisation; and
- (3) the project team of action learners who conduct the project.

The team is usually called the set of action learners. This term is also used in postgraduate degree programs where individual learners might use the results of a group project from their fieldwork in their individual thesis or dissertation. The people in the project team or set of action learners are called participants rather than trainees. They are usually managers or leaders who deal with actual workplace problems in real time. They are adept at criticising freely and constructively, and they support and advise each other during the project. When needed, the set is helped by external specialists or experts who are called tutors or consultants.

We distinguish between an action learning program and an action learning project. A program consists of several projects. It may be a postgraduate degree program or an in-company program or both. The project may be a team project in an organisation or an individual postgraduate project, using an action learning team in the workplace for the fieldwork. An action learning project can therefore be part of a program or it can stand independently without composition in a broader program.

One who has an important role in an action learning program is the set advisor, an individual whose task it is to facilitate the learning process for a set of action learners and to appoint tutors or consultants for the program as required, and a mentor for each project team.

The objectives of an action learning program generally are:

- team and vision building;
- networking;
- clarity about project focus;
- definition of the problem and of each action step;
- commitment to personal and group reflection and learning;
- input into each other's projects; and
- an appropriate evaluation of both the learning process and the outcomes (Dick, 1991).

The outcomes of an action learning program for the participants usually are:

- improved strategic thinking ability;
- understanding group processes and organisational change;
- improved understanding between sections of the organisation;
- development of new skills (e.g. leadership, problem-solving, communication, questioning, presentation and process facilitation skills);
- ideas for future projects and programs;
- a concrete outcome of benefit to the organisation and program participants; and
- high proven returns on investment in the action learning program.

To achieve the above objectives and outcomes, it is important to create a collaborative learning culture and to identify participants' values and worldviews. To this end we have used Paul Chippendale as a consultant who uses the AVI (a values instrument) (<http://www.minessence.net/html/aboutavi.htm>) and facilitates a process of learning and team-building congruent with the core values in an action learning program. Other features and a model for a structure with the main elements of an action learning program are described in more detail in my article "A model for designing action learning and action research programs" in *The Learning Organization*, Vol. 9 No. 4 (Zuber-Skerritt, 2002).

## Success and failure

The success of an action learning program depends largely on the extent to which the values in an action learning culture are adhered to, practised and actually lived by program participants. In brief, these values include:

- collaboration, trust and openness;
- team spirit and mutual respect for individual differences, talents and needs; and
- tolerance of mistakes, from which we learn.

If participants are not committed to these values in their espoused and enacted theories, an action learning program will not work, as Irvine-Piggot (2001) has just demonstrated in her PhD thesis.

On the other hand, Passfield in his article in *The Learning Organization*, Vol. 9 No. 4 (Passfield, 2002), provides a clear example of a successful action learning program: the Queensland University Action Learning (QUAL) Program that was the focus of his PhD project and resulted in many other publications, including Ryan and Zuber-Skerritt (1994) and Zuber-Skerritt (1994; 1997b). In this QUAL program, we – the design team – concluded that an action learning program is most successful if:

- it is designed, facilitated, monitored and evaluated by a professional team;
- the participants are working in teams or sets on a common and mutually agreed problem or concern;
- there is a residential start-up workshop (providing a foundation for team/vision building and understanding action learning and change processes), followed by regular meetings and progress report workshops (every 24 weeks);
- there are recognition and rewards on the part of the organisation to encourage successful participation; and
- there is the requirement for each project team to present a written report, to make a public presentation and to contribute to a final publication.

My “model for designing action learning and action research programs” within organisations, which I discuss in my article so titled in *The Learning Organization*, Vol. 9 No. 4 (Zuber-Skerritt, 2002), is congruent with these insights.

Action learning has also been successfully introduced and practised in large multinational companies. There is evidence that it was used to produce “learning organisations”, to re-create the companies and their leaders, and to improve communication in, and understanding of, the particular organisation. In so doing, the teams had also increased the company’s productivity through action learning. For example, Dotlich and Noel (1998) provide evidence of these action learning processes and outcomes from ten large corporations, including Shell, Ameritech, Citibank, Johnson and Johnson and Arthur Anderson. By publishing the results, Dotlich and Noel, the program consultants, present their action research on the action learning that they have facilitated in these organisations. Action research, as we

find in the next article in this journal, includes action learning, but it is more systematic and rigorous than action learning and is always made public.

Another example of a successful action learning program that includes several action research team projects is a two-year leadership development program for academic women in six technikons in South Africa who formed learning partnerships with experienced senior women in leadership positions in four Australian universities (Zuber-Skerritt, 2000; 2001). This program has been successful for the people involved in terms of leadership development of academic staff developers with a cascading multiplier effect in South Africa:

- increased cross-cultural awareness and communication skills;
- personal, professional and organisational development;
- experiencing client-centred methods of workplace learning and development; and
- regional collaboration of technikons in South Africa and their international links with Australian colleagues and global networks.

Networks, alliances, inter-organisational relationships, and learning through dialogue in and through these relationships and networks have proven to be important strategies for organisational learning. Beeby and Booth (2000) have demonstrated this in their overview of the literature on knowledge management and organisational learning.

Similarly, based on his extensive literature review of organizational development, Grieves (2000) concludes that in the new millennium there are two themes likely to dominate change: learning and reliability, in a world characterised by “discontinuous activities”, “volatility”, “uncertainty”, “chaos” and “unpredictability”. As Grieves (2000, p. 61) sees it:

World-class organizations are becoming virtual, knowledge-centred organizations which are customer focused, flexible and fluid and therefore continuously improving, highly exploratory, and? with a focus on management development and learning rather than training.

Grieves (2000, p. 66) identifies five key learning processes to enhance organisational capacity for change since it is almost always change that precipitates the need to learn:

- (1) benchmarking (or a process of learning from other firms in the same or related industry);
- (2) action learning (through teamwork and executive development programs);
- (3) developing an organisational climate characterised by openness, trust, teamwork and tolerance of failures associated with experimentation and greater learning;
- (4) maintaining commitment to support continuous learning; and
- (5) carrying out creative planning techniques (e.g. scenarios, visualisation, interactive planning).

I hold all five learning processes as essential aims, and characteristic, of any successful action learning program. These processes have been used with recognised success in the action learning programs mentioned above and in the programs listed in the Appendix, which are examples of major action learning programs that I initiated, convened, and conducted with colleagues in several universities in Australia. These programs aimed to achieve learning, growth and transformation at the individual, team and organisational levels. All of the programs achieved these aims. And all, except for the last program listed in this table (Australia-South Africa Links Program) which is still in progress, have resulted in books and other publications that are available through the author, but are too numerous to list here.

Those who have prepared applications for competitive research grants at the national level recognise the difficulty not only of obtaining positive peer assessment to have a grant approved, but also of securing an adequate level of funding to carry out the research successfully. For success with further grant applications, applicants must demonstrate they have achieved the original aims and anticipated outcomes of the previous project; in other words, that they have produced what they promised. Hence the impressive list in the Appendix is evidence that action learning programs can be at least as successful as other, traditional R&D projects.

However, the long standing scepticism and criticism of action learning programs has not disappeared. For example, De Loo and Verstegen (2001) claim that action learning

programs may lead to personal growth, but “hardly ever seem to result in organizational growth”. The three explanations they offer for this shortcoming (differences in participants’ perspectives, group problems, and hold-up effects) are unsubstantiated allegations based on equally critical and unsubstantiated articles that appeared in earlier issues of the same journal (e.g. Smith, 1988; Sutton, 1989).

It is obvious that this work has emerged from a different paradigm, using quantitative evaluation in terms of “increased profits, sales, or number of customers”. It suggests an “output-related payment scheme” for managers who undergo an action learning program, “to bring the incentives of the manager in line with the goals of the organization”. The authors’ reasoning suggests that they have not conducted successful action learning programs themselves. They also indicate poor understanding of the phenomenological paradigm in which action learning is located and of the essential theoretical concepts, values and organisational culture that are necessary pre-conditions for successful action learning programs. Without this understanding by project facilitators and participants, action learning programs are unlikely to achieve organisational growth.

Successful action learning programs are primarily concerned with the quality of the learning process rather than with a preoccupation to maximise the quantity of products, outputs, profits or remuneration. The latter have proven to follow anyway as a consequence of ongoing improvement of organisational and management practice. Long-term effects flow from “double-loop learning” for new problems/tasks/situations, and these too have a positive economic impact on the organisation, as Dotlich and Noel (1998) have demonstrated.

## Conclusions

In sum, facilitators of action learning do not come up with “the answers”. They question judiciously to help people in the workplace think carefully through the issues that are significant to their work situation. It is important, then, that facilitators “facilitate” this process of inquiry rather than impose

their own vision. Their task is to open up and incorporate the visions of workplace participants as contribution to the shared task of problem solving or improvement.

Asking probing questions to resolve problems or improve conditions is not at all new. In 400BC, Socrates used the questioning technique as the principal instrument for his own learning and for teaching his disciples. Yet despite its apparent simplicity, competent questioning is not a simple, cursory task. It requires skills, knowledge, intuition and philosophical understanding. It also requires a caring attitude and commitment to deepening the participants' understanding and improving circumstances in their workplace or other environment.

Thus, action learning does not claim to be useful for solving all problems for all people. It does claim – justifiably, I have argued here – to offer an effective approach to achieving personal learning and organisational improvement or transformation.

Characterised by creativity and flexibility, its greatest utility is demonstrated in dealing with complex, open-ended problems, a key reason why action learning has gained intellectual and institutional ground in times of swift social, economic and technological change such as we have seen clearly in the 1990s and into the twenty-first century.

I have argued that a focus on learning – at both the individual and organisational levels – is of primary importance for a long-term, multiplier effect and the ability to address complex issues/problems in new situations. I have also argued that this focus on continuous, life-long learning from one's own experience and from and with others in the workplace, is more likely to lead to improved organisational performance and productivity than if workplace learning were of primary, instead of secondary, concern. Giving priority to human factors such as values, organisational culture and processes of learning and work improvement, will achieve better products, services and financial profits in the long run because these human factors generate better understanding and motivation on the part of the people involved (i.e. employees at all levels)

I have reviewed the concept of action learning, its philosophical assumptions and values, since I believe that action learning has much to offer when it is carried out by people

who understand what action learning is, how and why it works, and how to put it to work effectively. I have also identified the main features and prerequisites of a successful action learning program and its possible pitfalls and failures. My perspective on action learning draws from both knowledge of the literature and my own observations and evaluation of the many action learning programs in which I have been involved since the 1970s.

Action learning has had critics from its outset in the 1940s. This may be inevitable as action learning has edged its way into the educational domain among some firmly embedded competing paradigms and entrenched academic traditions of teaching and learning, especially in the social and human sciences. The institutional journey forced upon action learning as a new paradigm in competition with mainstream perspectives resembles what Kuhn (1970) observed of struggles to retain the dominance of entrenched paradigms in the natural sciences. It forces the proponents of action learning to defend their views of what constitutes knowledge and learning and of how to evaluate successful performance. This ongoing dialectic has served to refine and consolidate action learning into a more durable, useful approach to learning and problem solving.

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## Appendix

**Table A1** Action learning programs funded by the Australian Government

Project title	Funding body	Grant A\$
<b>1 Developing Women as Leaders in Higher Education: a staff development program with a focus on postgraduate supervision</b>	DEET	48,000
	SDF	
	1992	
<b>2 Training the Trainers in Postgraduate Research and Supervision: collaborative residential staff development program</b>	DEET	103,500
	SDF	
	1992	
<b>3 Departmental Excellence in University Education (DEUE)</b>	DEET	150,000
	NPRF	
	1992	
<b>4 Departmental Excellence in Managing Institutional Quality (DEMIQ)</b>	DEET	249,600
	NPRF	
	1993	
<b>5 Raising Student Proficiency and Meeting Industry Needs in Chinese Language Education at the University Level</b>	DEET	100,000
	NPRF	
	1993	
<b>6 Fostering Postgraduate Research and Supervision in the New University Campuses: a residential staff development staff program</b>	DEET	100,000
	SDF	
	1994	
<b>7 Staff Development Program on Postgraduate Research Training for Supervisors of Non-English Speaking Background Students in the Nine Consortium Universities in Queensland</b>	DEET	151,780
	SDF	
	1996	
<b>8 Australia-South Africa Links Program: leadership development of academic women through action learning and action research (2000-2001)</b>	AusAID	173,100
	1999	

**Note:** DEET: Department of Employment, Education and Training; SDF: Staff Development Fund; NPRF: National Priority Reserve Fund; AusAID: Australian Government International Development Program

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# The concept of action research

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## Keywords

Action research, Model

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## Abstract

Action research has been recognised for its breadth as a field of research practice and its depth as a discourse of theoretical insight. It does not have one neat, widely accepted definition. Points to some reasons for the difficulty of formulating a generally accepted definition of action research, and argues why action research should not be confined but should be both clarified for communication and open for development. The discussion stems from a working definition developed with participants in an international symposium that serves as a classic definition of action research. Presents several alternative approaches to resolution and argues for a judicious mix of pragmatism and flexibility in approaching the definition issue.

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## Introduction

Action research has proven its utility, with growing recognition of its breadth as a field of research practice and its depth as a discourse of theoretical insight. Yet while gaining recognition internationally, action research does not have one neat, widely accepted definition. It is, after all, a very broad movement. The First International Symposium on “Action Research in Industry, Government and Higher Education” in Brisbane in 1989 and the subsequent five World Congresses on “Action Learning, Action Research and Process Management” (ALARPM) have made it clear that there is some demand for a handy definition of action research that explains its conceptual framework and how this can be used.

Action research by its very nature seeks to explain the pedagogical assumptions of the researchers (participants) and their research project. So it is not surprising that many have focussed their investigative lens on action research as a concept. The literature on action research is rich in useful definitions. Yet none of these has gained pre-eminence in the field. It is thus useful to clarify the concept of action research and to explore the definitional problem. In this paper we take up both tasks. We present several definitions put forward by others and propose a definition that we have produced ourselves after extensive thought, feedback and refining. However, we maintain that action research must be both clarified for communication and open for ongoing consideration since confinement in narrow, restrictive definitions could serve to inhibit useful conceptual development.

## Defining action research

We find this definition by Kemmis and McTaggart (1988, p. 5) generally very helpful:

Action research is a form of collective, self-reflective inquiry that participants in social situations undertake to improve: (1) the rationality and justice of their own social or educational practices; (2) the participants’ understanding of these practices and the situations in which they carry out these practices. Groups of participants can be teachers, students, parents, workplace colleagues, social activists or any other community members – that is, any group with a shared concern and the motivation and will to address their shared concern. The



approach is action research only when it is collaborative and achieved through the critically examined action of individual group members.

Participants in the First International Symposium in Brisbane offered various definitions that they had found useful. The Symposium participants sought to work towards a more open definition of action research that would attract general consent. But it was also recognised that rather than one fixed definition, a broadly accepted approach to defining action research would be the best response to the definition problem. This response is consistent with the flexible, pragmatic, collective response to problem solving that action research advocates. Here we try to synthesise some of the major elements in the discussion of the definitional problem.

In traditional philosophy, a “definition” seeks to capture the essence of an object by relating it to its *genus proximum* (i.e. the closest superordinate class) and naming its *differentia specifica* (i.e. specific difference from other species within this class). Philosophical analysis has aimed to establish what an object is essentially by “getting hold of the correct and eternally true account of it” (Barrow and Milburn, 1986, p. 15). But rather than following this post-Platonic essentialism, one might ask: “What is the purpose of a definition?” One could also ask why define, since this opens us to recognising the potentially restrictive nature of traditional “scientific”/pseudo-scientific approaches to research. Answering this question alerts us to the usually hidden or at least unobserved constraints that shape our research questions – why, what, how and who we ask – and similarly shape our answers. Asking the “why define?” question is a crucial means that enables us, as action research advocates, to move thoughtfully beyond the paradigm dominant in our research field and begin with our own questions, problems and understandings that are different from those of mainstream approaches. Instead of defining/controlling, this enables us to set up malleable parameters to open up and release.

Definitions have pragmatic, descriptive and normative functions in research. They are pragmatic in that they help communication in cases where the participants do not have a shared meaning of something, whether or not they have shared experience of it. Definitions are descriptive in that they record a usual

(culturally and historically located) use of language. They are normative in that they inherently involve the definer’s attempt to include some phenomena into the meaning of a communicated term and exclude others. These are preconditions for the communicative function of a definition and they are thus useful in providing a basis for the critique and development of a concept.

In the following discussion we focus on:

- the encounter of cultures and the adaptation of definitions;
- some limitations on definitions;
- two parts of a definition: axiomatic and empirical;
- two working definitions; and
- an action research model.

### **The encounter of cultures and the adaptation of definitions**

During the Brisbane Symposium, McTaggart (1996) recounted his experience of collaboration with participants from an indigenous culture quite different from that with which he was familiar. His anecdote hit home not only that action research derives from the western cultural contexts of their creators. It also highlighted how the western action researcher who at the beginning of a project is usually more experienced with research strategies and techniques than other participants, must be prepared to “give away” or share their knowledge of action research, which is anyway what action research advocates as part of the collaborative research process. Since this researcher is likely to have little opportunity to develop deep understanding of the other participants’ culture, he or she needs to work creatively to encourage the other participants – by and for whom the research project is largely conducted – to “reshape”, to “remake”, to “reconstitute” action research in ways that make sense within the participants’ culture while retaining the philosophical features familiar to the researcher.

In the face of striking cultural differences, the appropriate attitude towards identifying the meaning of concepts seems to be incremental rather than normative. The emphasis here is not on the clear-cut definitions that some researchers use for what may be labelled “non-action research” or “limited versions of action research”. It is on

offering support for developing the idea and practice of action research, in ways useful to people within the host culture. This cross-cultural approach aims to create space for participants from the host culture to develop their own self-reflective practice informed by action research philosophy rather than to control the practice or at least the naming and framing of practice.

“Culture” occupies a prominent position in Holly’s personal account of developing action research over two decades from the mid-1970s. He views action research as an innovation “offered” to schools (Holly, 1996). Characteristically, in the process of accepting innovations, teachers and schools further transform these innovations. Like other innovations, action research has been transformed in the process of being adapted to the needs of the school setting. Holly conceives the process of innovation as a “meeting of cultures”. “Culture” for Holly differs from McTaggart’s (1996) notion. In Holly’s usage, culture does not denote different ethnicities but different systems of thought and action developed in relatively unrelated places within one society.

Action research as innovation in this context represents a “culture” that is brought into relationship with the culture within a school system or classroom, to which it is at first potentially alien. Arguably, the attitude of someone bringing action research to schools should be similar to that which McTaggart advocates for the “western action researcher”:

... since neither can be sure to have fully understood the “host culture” and since both are only “temporary guests” who do not have to live with the long-term effects of the innovation, their stance should be modest and supportive, “giving away” action research to be used and transformed by the “host culture” for its own good rather than monitoring the process to prevent the concept from being “damaged” or “misconstrued” or to protect its conceptual purity from “contamination” or “dilution”.

Holly (1996) argued that:

too purist a definition (of action research) is disenfranchising

for example, when teachers introduce an action research project it is difficult for them to meet rigorous requirements of “participation” and “collaboration” at the start. Insisting on rigour or dismissing the evolving research project as a “limited form of action research” could turn off newcomers

altogether, instead of giving them the chance to develop their research approach as they become more familiar with the philosophy and methodology of action research. The move can therefore sacrifice the potential for both the practice of action research and the development of new practitioners who could in the longer term contribute to developing the approach.

Definitions are rooted in specific cultures – ethnic, social, political and others – that give definitions particular meaning and significance. To understand and be understood in other cultures, we must do more than produce a literal, translation of the idea into the language and cultural frameworks of the new culture. The idea must be appropriated in an active process of deconstructing old definitions and models and of reconstructing and re-enacting them in relation to the settings, circumstances, values and interests of the “host culture”. Thus, an understanding is gradually developed that can be expressed in meanings and practices indigenous to the specific context. This means that for a definition to fulfil its “pragmatic function”, its “normative function” must not be defended too closely.

### Some limitations

Not every useful and valuable change process needs to be re-described in the terms put forward by action research, as Kemmis (1996) has argued. This is a particular approach to particular kinds of problems, not some kind of panacea for all problems of social practice. It calls for intellectual clarity and honesty to develop a fairly clear idea of what one is talking about. This always means that other approaches to improving social practices, social settings and our understanding of social life, although perhaps appealing in other respects, must be excluded from a specific discourse.

Action research aims to develop practical situations and competencies of the participants without substantively prescribing objectives to be achieved. The general aims of action research are frequently expressed in terms of process criteria (e.g. participation and emancipation) and it seems worthwhile to continue to stress these characteristics to differentiate action research from other approaches to understanding and creating

social change. Clearly, action research will continue to develop. Part of doing research is researching research, as the research task is inherently epistemic. Developing our knowledge about and competency in action research therefore remains necessary; we must avoid behaving as if doing action research were no more than administering a prescribed strategy. This developmental orientation lies at the very heart of action research and valid definitions of action research acknowledge and bear out this orientation.

The central problem with definitions of action research seems to be the potential incongruity between two of its key aspects – intellectual clarity and developmental orientation. So it is important to consider how intellectual clarity (which seems to be necessarily exclusive at any given time) can be achieved without harming the overall developmental orientation that action research aims to promote and embodies itself (and which must necessarily be open to inclusions). In the following section two attempts at reconciliation are presented for discussion.

### Two parts of a definition: axiomatic and empirical

Inspired by Paul Feyerabend's writings, Altrichter (1996) reconstructed action research for his faculty's practical work, as a research program with two distinct parts:

- (1) an "axiomatic part", indicating what is meant by action research; and
- (2) an "empirical part", presenting an inventory of "rules of thumb" that collects reflected research experiences of action researchers.

The first part that clarifies meaning is a pragmatic means for communication in the sense that it aims to prevent irrelevant research experiences from being inserted into the inventory of rules. The formulation for the first part is to be as short and clear as possible, using familiar terms. It is finite and relatively static; thus, it should not be so narrow that the need to alter and modify the definition arises continually. However, the breadth of the definition is eventually a strategic question: the broader the field and the more areas it covers (i.e. the more people who are

potentially attracted), the more difficult it becomes to argue concretely and incisively the strengths of action research, and the more competition with other research programs is to be expected.

The second, empirical, part consists of a collection of various researchers' reflected research experiences. It is as extensive as publication length allows and is open-ended and dynamic. Its message is clear: in doing research, action researchers test the inventory of rules, a process that modifies, augments and further develops these rules.

### The axiomatic part

The following description of action research is a concrete example used in the first session of an introductory course into action research. The "definition" consists of just three points (what we are talking about):

- (1) action research is about people reflecting upon and improving their own practice;
- (2) by tightly inter-linking their reflection and action; and
- (3) making their experiences public to other people concerned by and interested in the respective practice.

### The empirical part

The "inventory of rules" is potentially infinite. So participants (e.g. at the beginning of the course) can be provided only with an instructive selection. What rules are included in this selection is the response to a pragmatic question of how to enhance learning under specific circumstances rather than a matter of principle. We consider it most appropriate at the beginning of an action research course to come forward with a mixture of rules that make concrete some of the general orientations of action research and others that give down-to-earth hints for research strategies.

When you are starting your research project the following experiences of other action researchers might give you some orientation. Remember, however, that these experiences have to be tested and developed through your own research:

- development in a democratic context is sustainable only if it is participatory;
- development in a democratic context is sustainable only if the process emancipates the participants;
- to avoid frustration and loss of data it is recommended that instruments be tested

in a situation similar to the research situation; and

- to ensure collaboration of the participants in the long term it is necessary to acknowledge that they have “ownership of their data”.

It might be striking that some of the most fundamental features of action research (e.g. participation, emancipation) and virtually all its ethical considerations (e.g. democratic context, ownership) are included in the empirical inventory of rules. This might seem a weak mode of defining what is important with regard to action research; to some it may seem tautological. However, we suggest that this way has its own strengths. These statements are rightly in the empirical part, first because they have some supporting evidence and second because action research is partly about exploring these statements in practice and perhaps developing them further. They are not preconditions for action research but are matters for research in themselves. For example, ethical considerations define circumstances that are practically conducive to research and the development of knowledge. Unethical research can hamper the availability of information, thus undermining its own basis.

### Working definitions

From here we present two working definitions of action research that are even more pragmatic. One is a product of public discussion and the other is to inform public discussion.

As frequently happens in the first phases of action research workshops or projects, a working definition of the term “action research” was needed at the beginning of the Brisbane Symposium but none of the existing definitions could satisfy all participants. None of the definitions discussed could accommodate the diverse experiences – reading about, reflecting on, and practising action research – that all participants had brought with them. Nevertheless, some shared understanding was necessary as a basis for discussion. In an interesting process of structured discussion the participants

gradually elaborated a working definition on a piece of flip chart paper that by the end of the discussion obviously reflected some shared concerns of the conference participants. Even though some definitional questions remained unresolved there was agreement that projects satisfying these conditions could be considered as “action research”.

Table I presents the working definition authored jointly by the participants at the Brisbane International Symposium on Action Research in 1989, which has frequently been cited from the proceedings (now out of print) and which still serves us as one classic definition of action research.

We suggest this working definition was acceptable to the full range of Symposium participants because it is:

- not too threatening to existing understandings and practices;
- not so vague that any process of enquiry can be labelled “action research”;
- rather rich in examples that can support the development of shared meanings;
- open enough to allow further elaboration and development;
- allows for an *ex post facto* incorporation of projects into the discussion (that was not initiated and conducted on the basis of some elaborate understanding of action research); and
- above all, collaborative with respect to the process of its formulation for a specific context.

The Internet is now a popular medium for fast access to information. For the Fifth World Congress on ALARPM in September 2000, a concise explanation of action research was posted in a special edition of the electronic newsletter of the University of Ballarat, the venue of the Congress. The newsletter was distributed to all University staff via e-mail and we present it here as the Appendix.

### An action research model

As indicated above, these two working definitions are pragmatic – the first (Table I) as a product of public discussion at an international symposium, the second (Appendix) to inform public discussion at a world congress. Another pragmatic form of defining and explaining action research is a

**Table I** Working definition of action research

If yours is a situation in which

- people reflect on and improve (or develop) their *own* work and their *own* situations
- by tightly inter-linking their reflection and action; and
- also making their experience public not only to other participants but also to other persons interested in and concerned about the work and the situation, i.e. their (public) theories and practices of the work and the situation;

and if yours is a situation in which there is increasingly

- data-gathering by participants themselves (or with the help of others) in relation to their own questions;
- participation (in problem-posing and in answering questions) in decision-making;
- power-sharing and the relative suspension of hierarchical ways of working towards industrial democracy;
- collaboration among members of the group as a “critical community”;
- self-reflection, self-evaluation and self-management by autonomous and responsible persons and groups;
- learning progressively (and publicly) by doing and by making mistakes in a “self-reflective spiral” of planning, acting, observing, reflecting, replanning, etc.;
- reflection which supports the idea of the “(self-)reflective practitioner”;

then

yours is a situation in which *action research* is occurring

diagrammatical model as a spiral of cycles (Figure 1), each consisting of four moments or phases in action research:

- (1) planning;
- (2) acting;
- (3) observing; and
- (4) reflecting.

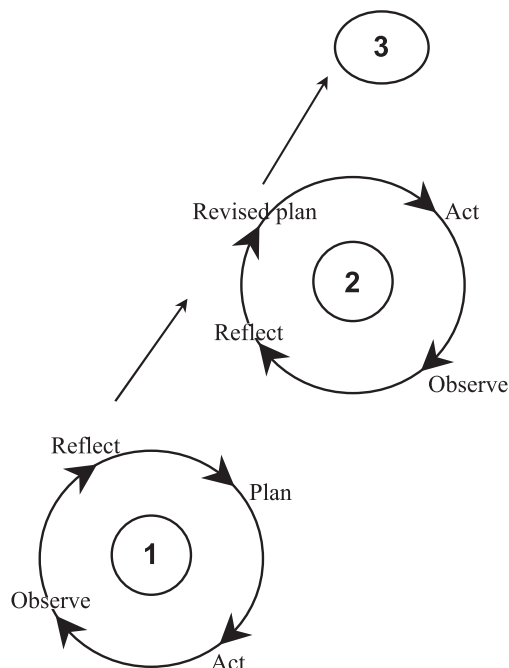
This model is based on Kurt Lewin’s work, explicated by Kemmis and McTaggart (1988). It is a simple, helpful model of the

continuous and iterative process. It involves research and development, intellectual inquiry and practical improvement, reflection and action.

## Conclusion

Action research is enquiry with people, rather than research on people. Because it includes investigation of the pedagogical assumptions of the researchers (participants) and their research project, many have attempted to explain or define it. The working definitions of action research presented in this paper are a few of many general frameworks. They have been used by many action researchers for more than a decade. We believe that these definitions indicate the nature, philosophy and methodology of action research, especially through discussion presented in this paper. Further references on action research are included in subsequent papers in this journal issue.

Action research is inclusive in its relationship with many other research frameworks. Thus, while it is important to attempt definition and clarification for communication, it is also important to acknowledge that action research must remain open for ongoing consideration since confining it within narrow, restrictive definitions could serve to inhibit constructive conceptual development.

**Figure 1** The spiral of action research cycle

Source: Zuber-Skerritt (2001, p. 15)

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## Appendix. What is action research?

Defining action research in a few paragraphs in a newsletter is fraught with risk in an

academic setting but hopefully the words selected below are both useful and sufficiently general to avoid contention.

Action research is described by one source (Dick, 1991) as a family of research methodologies which pursue action (or change) and research (or understanding) at the same time. In most of its forms it does this by action and critical reflection and in the later cycles, continuously refining methods, data and interpretation in the light of the understanding developed in the earlier cycles.

Another source (Zuber-Skerritt, 1992) generalises on the forms of action research that have evolved:

All adopt a methodical, interactive approach embracing problem identification, action planning, implementation, evaluation, and reflection. The insights gained from the initial cycle feed into planning of the second cycle, for which the action plan is modified and the research process repeated.

For this source, other distinctive features of action research are:

Critical collaborative enquiry by reflective practitioners who are accountable in making the results of their enquiry public, self-evaluative in their practice, and engaged in participative problem-solving and continuing professional development (i.e. the CRASP model).

According to this view, action research is critical in the sense that practitioners not only look for ways to improve their practice . . . but are also critical change agents of those constraints, and of themselves. It is reflective in that participants analyse and develop concepts and theories about their experiences. Action researchers are accountable in that they aim to make their learning process and its results public. . . . Their practice is self-evaluated in that the reflective and analytical insights of the researcher-practitioners themselves form the basis of the developmental process. Action research is participative in that those involved contribute equally to the inquiry, and collaborative in that the researcher is not an expert doing research from an external perspective, but a partner working with and for those affected by the problem.

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# The concept of process management

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*Richard Bawden and  
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## Keywords

Organizational learning, Learning organizations, Process management, Action research, Action learning, Experiential learning

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## Abstract

Presents a conceptual framework for process management of groups involved in action learning and action research. Discusses propositional, practical and experiential learning; and the concept of meta-learning (learning to learn) in relation to the "learning organisation". Presents a model of process management that concerns people and process, with implications for research in industry, government and higher education.

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## Introduction

A new management style is beginning to pervade businesses and higher education institutions in many parts of the world. From an obsession with products and commodities, many have at last come to recognise that a principal issue is the process that delivers an outcome. Traditional management was product-oriented, measuring performance largely by the quality of its products and the level of profits that these products generated.

Today the emerging style of management also recognises the importance of processes that produce the product, and which are linked inextricably with determining the product. Accordingly, this new style of management orients more attention to process.

Many reasons are given to explain this shift in focus from concern about outcomes to concern about the processes that lead to the outcomes. One reason is crucial to our understanding: the "human factor" is now assuming pre-eminence as a factor of production. This development comes from growing recognition that people matter and that the skills and qualifications of workers are critical determinants of the performance of enterprises and economies.

The notion of process management is like the two faces of Janus, and to improve the management of enterprise processes we need to focus on managing the processes of human resource development. Thus, the new paradigm of organisational development emphasises the management processes that we need to improve production processes. In times of rapid change, organisations, like organisms, are best served through co-evolving mindfully with their environments, with each influencing the other.

The product orientation of traditional management approaches suffers from an inflexibility characterised by a singular lack of adaptability to changing circumstances. Adaptability involves innovation, creativity, imagination, and processes effective for harnessing these potential inputs in harmonious ways. The essence of adapting well involves not just willingness to change



but also the ability to learn. Indeed, learning is the key process to be managed when circumstances are changing. Just as individuals learn to deal with the changing situations they face throughout their lives, organisations too can learn effective responses to change. They need to do so in the interests of all in the organisation – to ensure a satisfying work environment where all operate at the peak of their ability.

### Organisational learning

Organisations learn when the individuals who comprise them learn. When these individuals share their learning with each other and learn to learn as a collective, both individual and organisational learning is increased and is more efficacious. Here learning is a social process. The learning organisation comprises an integrated community of people functioning together as learning collectives of empowered and interdependent individuals, all helping to link the forward direction for their organisation with the movement of historical forces in their environment.

The fundamental aim of process management is to improve the quality of collective learning, both within the subsystems that organise the overall organisational system, and between the system and its environments. Learning in this context of change is a notion far removed from the conventional ideas of education and training within organisations.

The key to understanding the distinction between the conventional and the new management approaches is the notion of learner and learning organisation as active participants in learning. Here learning involves those who share a workplace/organisational concern in the four inter-linked processes:

- (1) finding out;
- (2) determining the best course of action;
- (3) taking action; and then, crucially:
- (4) reflecting on both the outcomes and the processes as a step towards further learning.

Before we explore this notion, we find it useful to distinguish between what

we recognise as three main ways of learning.

### Ways of learning

- (1) We can learn by being informed about something by an “authority” whom we trust (teacher, author and so forth), and with/from whom we can validate our learning. (I learnt that  $E = mc^2$  through being informed by teachers whose teaching I trusted and by reading in respected scientific literature how Einstein “proved it”!) This is sometimes called propositional learning or learning (in order) to know about something.
- (2) We can learn by being instructed in how to do something by an “authority”. We validate our learning here by doing it ourselves. (I can instruct you how to ride a bicycle by demonstrating and explaining, and you can try it yourself.) This is often referred to as practical learning or learning (in order) to be able to do something.
- (3) We can learn by making sense ourselves of something that is happening around us or directly to us. Often the only way we can validate this learning (if we are unable to follow the Socratic method of trying to disprove what we have learned to prove its validity) is by accepting it to be true for ourselves, that is, using our intuition. (I cannot be sure what a headache feels like to you, but I know through experience what it is like for me!) This is called experiential learning or learning (in order) to be someone.

Note that all three forms of learning involve not only “finding out” but also “taking action”. Yet the ways of doing these differ in the three modes. “Finding out” is through being informed by secondary sources, being informed through example directly by the primary source, and experiencing personally. “Taking action” is through validating against an “authority” and your own prior knowledge, testing for yourself by putting what you have learned into practice, and reaching recognition or understanding

through personal reflection and assessment, again by validating against your own prior knowledge. The primary purpose of the learning – for knowing about, doing, or being – also differs significantly, even if the ultimate purpose may be the same.

In the various organisations with which we (the authors of this article) have been involved in process management – indeed as a result of the aims of these organisations – we often encounter the encouragement of propositional and practical learning. Rarely do we find, however, strategies formalised for experiential learning in these organisations. This type of learning appears to be taken for granted. Yet it is wrong to think that because humans are sentient creatures they are inherently capable of experiential learning and will undertake it of their own volition. Humans have to learn how to learn experientially just as we have learnt (e.g. through our schooling, etc.) how to learn propositionally and practically.

This deficiency in experiential learning strategies highlights the need for an even more basic process to be managed: learning to learn, or meta-learning as many educators call it. And again, just as individuals can learn how to learn more effectively, so too can organisations as learning collectives. This is a critical process for any enterprise trying to remain as much as possible in concert with the “forces influencing its future”. Hence we believe that an organisation has no higher priority for a sustainable future than designing and implementing persuasive strategies to support “learning to learn” – meta-learning – inside the organisation.

Most people rarely question how they learned what they have learnt. This point is quite easy to make; try writing down five things that you have learnt and write next to each how you think you learned each one. This is likely to be an unfamiliar task for most who attempt it.

The management of meta-learning in organisations is a new challenge to people interested in and responsible for the following:

- organisational development;
- human resource management;
- staff training and development; and
- education research and development.

One particularly effective way to develop meta-learning in organisations is through processes management so it is instructive here to reflect on the concept of process management.

### **A conceptual framework of process management**

Process management is a facilitative structure that can be used for management inside an organisation or other community. It recognises that organisations/communities comprise groups of people who share some interests, and in managing processes that a group undertakes (guided initially by a facilitator) it advocates group equity, group ownership of the product, and shared ownership of the process by the facilitator and the group.

Process management is a social learning process that helps groups to identify and clarify their most suitable goals and the means to achieve them. It is oriented towards change, the future and the needs of society or the group or organisation/community. Process management requires participants to be aware of the significance, productivity and creativity of group processes, and of the influence of power relationships within and between these processes. It is characterised by an uncertain environment. It seeks to empower participants, not manipulate them, through implementing and facilitating a work process designed to meet organisational/community management purposes. Process management guides the flow of events without controlling the outcomes.

Process management is more a state of mind than a series of concrete, observable events. It requires vision that is attractive to participants, plausible, unconfined and practicable. It identifies and facilitates group talents; it is contextual and it gains effectiveness from the synergy and symbiosis of component parts of the process. The process relates to relationships rather than to tasks and it is value based – hence our difficulty in formulating a definition. Process management is also seen to:

- encourage consensus with regard to identifying appropriate outcomes;
- require group commitment to achieving agreed outcomes;
- seek order out of chaos; and
- be enjoyable.

What are the implications of this conceptual framework for the practice in industry, government and higher education? To answer this question, we need first to ask if there are essential features of process management missing in this conceptual framework. We need to consider these features and then establish under what circumstances process management might or might not be appropriate.

### **Additional constituents of process management**

The brief explication above of the conceptual framework of process management suggests its close relationship with the third way of learning that we described above: experiential learning to understand our personal circumstances to prepare for further action. Experiential learning is in fact a central constituent of process management so we will look further at this form of learning and its place in process management through action learning and action research.

Experiential learning entails learning from concrete experience through a process of continual iterations between having or observing an experience, reflecting on it, and generating new understandings of it through formulating abstract concepts and generalisations (Kolb, 1984). These new understandings need to be tested in other situations to confirm (or discount) their validity. This leads to new concrete experience that in turn encourages fresh iterations, and so the process continues.

This type of learning from experience through transforming what one construes from it into knowledge, understanding or insight is a central feature of process management. Process management recognises that experiential learning empowers people to learn through their own engagement with issues, through

experimenting, being allowed to make mistakes, reflecting upon the experience, conceptualising the results or effects of the experience, distilling its lessons and repeating the cycle by trying out the newly gained knowledge in different situations. This is precisely the type of “process” that the process management framework seeks to “manage”.

Experiential learning is similar to action learning which, according to Revans (1982), is based on a five-stage model of the dominant scientific methods:

- (1) observation;
- (2) theory;
- (3) experiment;
- (4) evaluation; and
- (5) review.

Both experiential and action learning have stages of each of these methods:

- observing the experience/action;
- building the concept/theory;
- testing/experimenting;
- reflecting/evaluating; and
- conducting the review process.

These similarities explain why the terms are often used synonymously. Action learning is explained in detail in the article by Zuber-Skerritt (2002) in this journal issue.

Margerison (1991) has adapted the action learning process to management education and development. He presented a cyclical model in seven phases:

- (1) questions to clients to clarify objectives and methods;
- (2) discovery of data;
- (3) feedback and analysis of data;
- (4) discussion and agreement on action;
- (5) action implementation;
- (6) assessment of changes; and
- (7) action project presented.

However, action learning projects need not be driven strictly by objectives. Frequently the original plan has to be changed – for example, in the light of unforeseen developments or unforeseen research results, or when participants develop a new plan in response to changes in the environment or to advancement of their own insights and better-informed suggestions. All people involved in an action learning project,

including facilitators (who facilitate the group process in a workshop or team project) and convenors (who convene and manage the whole program) are active participants in the action learning or action research process.

Action research includes action learning, but action researchers aim not only to learn from their own and each other's work, but also to improve it and to change their own situations and the conditions in which they work, as well as to contribute to public knowledge through publishing their learning. They collaborate as equal participants in teams or task forces, researching with others rather than on them, so forming a "critical learning community" or "action researching system" (Bawden, 1996). The action research process was first described by Lewin (1952) as a systematic way of identifying and solving problems through a spiral of action research cycles, each consisting of:

- a plan;
- action;
- observation; and
- critical reflection.

This explanation has been developed further by authors in various disciplines and by participants in the International Symposium on Action Research in Industry, Government and Higher Education (Zuber-Skerritt, 1996). The intended outcomes of action research always include taking remedial or otherwise positive action as well as creating knowledge.

One of the co-authors of this article has developed a model of action research in higher education that integrates previously unrelated domains of theory (Zuber-Skerritt, 1992a, b). It is an alternative model of university education designed to improve learning, teaching, research and academic staff development through action research projects conducted by university teachers themselves in collaboration with an educational adviser. The aims of action researchers are:

- learning more about and developing their performance as academics; and
- improving their practice through processes that include changing existing conditions and removing constraints that impede practical improvements.

Research at Griffith University in Brisbane (Limerick and Cunnington, 1993) and elsewhere has identified action learning and action research as highly appropriate methods for developing the managerial competencies and attitudes seen to be necessary to adapt to present and future rapid change. Action learning and action research are therefore important constituents of process management for both the business managers, project facilitators and for their staff.

However, action learning, action research and process management are not the panacea for all management problems. Whether they are appropriate ways to respond to a management problem depends on the overall circumstances and particular situations that prevail in each case.

### **When is process management (in)appropriate?**

Before we consider process management in industry, government and higher education we need to assess its suitability for certain types of projects. Since process management helps us to cope judiciously with change, the key context for its effective use is an environment of uncertainty. Thus process management is less appropriate in steady environments where there is minimal doubt or risk, and where tasks may be performed faster, more efficiently and more cost-effectively under the direction of an experienced manager, rather than through lengthy group processes. Therefore, traditional control management and propositional and practical learning are appropriate in environments with a high degree of certainty. Process management, action learning and action research are appropriate in environments where there is uncertainty.

Another criterion for assessing the suitability of process management is the degree to which executive managers are willing to distribute some of their authority to other people in their organisation, or whether these managers insist on retaining as much of their power as possible to control others in the organisation. The latter approach may be understandable and in an environment of certainty may even be appropriate. But it is

problematic in an uncertain environment or in times of fast and unpredictable change, when solutions require vision, creativity and flexibility for long-term productivity. These types of responses are more likely to be achieved through effective group processes than by individual decisions and top-down control. In Table I we present a statement about process management that details these considerations in point form.

### Process management in higher education, government and industry

The foregoing discussion enables us to turn here to consider the development of process management within the areas in which its implications are most profound:

- (1) higher education;
- (2) government; and
- (3) industry.

The late 1980s and 1990s were characterised as a time of radical change in all three of these sectors worldwide. The unprecedented restructuring of both higher education and the public service, at both the organisational and the departmental levels, are powerful examples. For example the Australian Government's 1988 White Paper (Dawkins, 1988) enforced, by funding implications, closer collaboration among the three sectors

**Table I** Process management formula

If yours is a situation that requires and permits:

- adaptation to rapid sociological and technological change;
- empowerment rather than control and manipulation of people;
- group consensus on appropriate outcomes through facilitating group processes
- characterised as:
  - future- and need-oriented;
  - with shared ownership by participants;
  - group responsibility; and
  - group commitment;
- involving:
  - experiential learning;
  - action learning; and/or
  - action research

then

yours is a situation in which process management is appropriate

in a move to achieve greater efficiency and effectiveness on lower budgets.

These new structures require new attitudes and approaches to work processes and procedures, and staff development rather than staff training. New skills and competencies have to be developed at all levels from top executives/senior administrators through middle management/academics to workers/students. These new competencies relate to a clearer understanding of work processes, such as creative vision and strategies for future developments, group processes in a "critical community", team spirit and collaboration.

As mentioned earlier, in the long run, process management may be more effective than the traditional management model of control and skills training, both for meeting these new requirements and for developing new competencies. After all, news reports make it clear that early in the twenty-first century uncertainty marks the work environments of many, many people. This means that people in top management positions need to look upward and outward to collaborate with executives in other organisations and in other sectors, rather than looking downward to control their staff, which limits staff potential. Middle management and academics need flexibility, freedom of action, and greater responsibility for facilitating action learning among themselves, their colleagues and students. This would encourage workers at all levels to feel more responsible for their workplace contributions and to participate more actively in designing, implementing and constantly reviewing their work, or their study programs in the case of students.

In this new and uncertain environment where the borders between right and wrong answers appear to move constantly, all participants need to be encouraged to contribute actively and critically. This is possible only if the old hierarchical structures are replaced by more democratic and humanitarian principles that reorganise and help to equalise relationships within the workplace or organisation. Such a strategy has people and process as its central concerns rather than product and outcome, as we explained at the start of this article.

## Conclusion

Process management is recognised today as a powerful approach to managing change in organisations. It empowers people who share a workplace/employer or membership in an organisation. It trusts in their ability to learn and develop through their own experience and action. It fosters this trust between them, rather than expecting that they will follow passively and uncritically the directions given by others. This approach applies to work in industry, government and higher education and helps to explain the growing interest in this concept. Clearly process management has much to contribute to management and to society in these times of swift technological and social change.

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# The Learning Organization

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## **Action learning and action research models**

Guest Editor: Ortrun Zuber-Skerritt

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## Abstracts & keywords

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### **A model for designing action learning and action research programs**

*Ortrun Zuber-Skerritt*

**Keywords** Action learning, Model

Models can be helpful for understanding the essence and/or processes of complex phenomena in a field, because they are simple representations of concept patterns and relationships. This paper presents a generic model for designing action learning programs, including action research projects, within organizations. Core values for action learning programs and explanations for success and potential pitfalls are also discussed. The model has been tested and found useful by many senior managers, academics, postgraduates and consultants in several countries. Readers are encouraged to explore the model in order to apply, refine, adapt it, or to create their own model representing their theoretical framework, concepts, values and systems thinking.

### **Creating innovation and synergy through a parallel action learning structure**

*Ron Passfield*

**Keywords** Action learning, Motivation, Innovation

This paper explains the underlying dynamics of the University of Queensland action learning program (1991-1999) through discussion of the parallel action learning structure (PALS) model. The author developed the PALS model as an outcome of his action research PhD study of the program, which was a development program for senior academic and administrative staff based on the principles of action learning and action research. This program achieved outstanding success and became a best practice model for other universities throughout Australia and elsewhere in the world. The PALS model described in this paper links the program design elements with personal and organisational outcomes and shows how these contribute to synergy and ongoing organisational energy and innovation. It also serves as a model for designing action learning interventions in other environments.

### **Postgraduate programs using action research**

*Bob Dick*

**Keywords** Action research, Higher education

This paper is Bob Dick's latest conceptualisation of much of his extensive work (including his AREOL course: action research and evaluation online). His focus is on postgraduate programs. He discusses the choices that a postgraduate student faces in conducting action research: as a technician or craftsperson; primarily theory-driven or data-driven research; emphasis on action or research; choices in methodology; and choices in methods to involve people and to collect and analyse data. He also takes up other key issues including literature review, generalising and writing.

### **Action research within organisations and university thesis writing**

*Ortrun Zuber-Skerritt and Chad Perry*

**Keywords** Action research, Organizational learning

This paper argues that action research is more appropriate than traditional research for improving practice, and professional and organisational learning. Our particular aim is to help postgraduates in the social and human sciences to understand and clarify the difference between core action research and thesis action research; that is, between collaborative, participatory action research in the field (aimed at practical improvement in a learning organisation) and independent action research in preparing the thesis (aimed at making an original contribution to knowledge). We present a model to illustrate the distinction and relationship between thesis research, core research and thesis writing.

### **Reflective Internet searching: an action research model**

*Sylvia Laretta Edwards and Christine Bruce*

**Keywords** Internet, Action research

Sources of information and other opportunities available via the Internet are increasing exponentially. This comes with the steady increase in Internet use for education, marketing and commercial trading, and in government for communication of information to citizens. Using the action research cycle of planning, acting, recording and reflecting, this article introduces a model for an approach to Internet searching and use. The model is a conceptual framework for Internet searching that will help people to overcome the challenges of working within an environment that is subject to continuous change, both in the forms of technology used and in the content that is available through the Internet. Our model encourages the searcher to use action research principles to enlighten their searching, reflecting and learning about new techniques as the tools that they use change around them. Our model should prove valuable to educators, researchers and consultants to inform their own practice as well as for use in the educational environment.

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## Guest editorial

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### About the Guest Editor

**Ortrun Zuber-Skerritt** is Director of OZI (Ortrun Zuber International P/L) specialising in action learning and action research, leadership programs, postgraduate research training and supervision, including qualitative research methods. She is also Adjunct Professor at Griffith University, Brisbane, at Southern Cross University, Lismore, and at the University of South Australia, Adelaide, as well as Professor of Professional and Organizational Development in the International Management Centres Association (IMCA). After her under- and postgraduate studies in Germany she obtained three doctoral degrees in Australia: PhD in Literature (University of Queensland), PhD in Higher Education (Deakin University) and DLitt in Management Education (IMC, Buckingham, UK). She has published 25 books, over 30 book chapters, over 100 journal articles, papers and reports and produced over 50 video programs. She has been invited to conduct seminars and workshops in many universities in Australia, New Zealand, Hong Kong, South Africa and Europe (Germany, Austria, Holland, Sweden, England). Since 1992 Ortrun has been awarded over A\$1 million in external grants.

In this issue we move ahead from the special theme in the previous issue, action learning, action research and process management (ALARPM), to the related theme: action learning and action research models. After examining ALARPM conceptually, we move here to the practical dimensions. The authors have put forward a variety of models that they have developed and that practitioners have found useful for action learning and action research projects.

The five articles in this issue build arguments for successful action learning programs with action research projects at the highest level of quality that lead to improved performance and organisational learning. These articles explain the success of structured action learning programs that are designed, implemented and evaluated by professional teams. The articles also offer instructive examples of action research projects facilitated within action learning programs that can serve as models for those who are new to the field.

Like articles in the previous issue of this journal on ALARPM (Vol. 9 No. 3), the articles in this issue are written within the framework of action learning and action research. The authors therefore argue and exemplify from their own personal and professional experience. But again, as in the previous issue, we encourage others to write from their own perspectives and experiences; there is no one correct way of providing guidance for process managers, students and supervisors using these methods and processes, nor are the models offered here singularly definitive.

There are five articles in this feature. I have written the first of these, which offers a generic model for designing action learning and action research programs within organisations. I also discuss core values for action learning programs, explanations for success, and potential pitfalls in using this model. Ron Passfield's article explains the Queensland University action learning program (QUAL) through discussion of the parallel action learning structure (PALS) model that he developed for senior academic and administrative staff based on the principles of action learning and action research. The PALS model links the program design elements with personal and organisational outcomes, and shows how they contribute to synergy and ongoing

organisational energy and innovation. It also serves as a model for designing action learning interventions in other environments.

The third article, which explores postgraduate programs using action research, was prepared by Bob Dick. He discusses the choices that a postgraduate student faces in conducting action research: as a technician or crafts person; as primarily theory-driven or data-driven research; and with emphasis on action or research. He also considers choices in methodology and data collection and analysis, as well as other key issues including literature review, generalisability and writing.

Chad Perry and I have written the fourth article, on action research within organisations and thesis writing. Here we aim to help postgraduates in the social and human sciences with their writing by understanding the difference between core action research (aimed at practical improvement in a learning organisation) and thesis action research (aimed at making an original contribution to knowledge). Our model illustrates this distinction and highlights areas where the two are related to clarify the writing task for postgraduates.

In the final article in this feature, Sylvia Edwards and Christine Bruce discuss their

action research model for reflective Internet searching. The model is a conceptual framework that encourages the searcher to use action research principles in their searches, and to reflect and learn about new techniques as search tools change around them. Educators, researchers and consultants may find the model highly useful to inform their own practice as well as for use in the educational environment.

As editor of this issue of *The Learning Organization*, I conclude the feature with an epilogue that observes and reflects on the preceding articles in the style of action research. We hope that by offering historical and contextual background and a detailed guide to sources, as well as our anecdotes and insights, the collected work in this journal issue will inspire new understanding and practical responses, and will enrich the international debate on ALARPM for professional and organisational learning, development and improved performance.

As in the last issue, I acknowledge here the editorial work of Maureen Todhunter, whose contribution to this double feature has been extremely useful. I thank Maureen sincerely.

**Ortrun Zuber-Skerritt**

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# A model for designing action learning and action research programs

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*Ortrun Zuber-Skerritt*

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## The author

**Ortrun Zuber-Skerritt** is Director of OZI (Ortrun Zuber International P/L), Adjunct Professor at Griffith University, Brisbane, Australia, and Professor of Professional and Organisational Development in the UK-based International Management Centres Association (IMCA).

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## Keywords

Action learning, Model

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## Abstract

Models can be helpful for understanding the essence and/or processes of complex phenomena in a field, because they are simple representations of concept patterns and relationships. This paper presents a generic model for designing action learning programs, including action research projects, within organizations. Core values for action learning programs and explanations for success and potential pitfalls are also discussed. The model has been tested and found useful by many senior managers, academics, postgraduates and consultants in several countries. Readers are encouraged to explore the model in order to apply, refine, adapt it, or to create their own model representing their theoretical framework, concepts, values and systems thinking.

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## Introduction

There is an extensive literature on action learning and action research (ALAR), as is evident in this journal issue. It concerns their nature, epistemology, theories, methodologies, methods, techniques, applications, examples, and personal reflections. However, there are gaps in the literature around the actual design and conduct of a program, the reasons for the success and failure of programs, and the core values underpinning ALAR.

This paper aims to address these gaps in the literature. First, I explain the rationale for model building before presenting a generic model for an ALAR program consisting of eight components. This is followed by an explanation of what makes ALAR programs successful (with reference to Glasser's concept of four basic human needs), what are the potential pitfalls and how to avoid them. I then consider nine core values that underpin a successful ALAR program.

## Model building

I have defined a model as the representation of a concept or system in a two- or three-dimensional diagram. This representation should be as clear to others as it is to the model constructor (Zuber-Skerritt, 1995, p. 3). Model building is a process of establishing patterns and relationships; it is a simple representation of a theory or message in the form of a concept map or diagram; thus, it is "minessence", that is the essence of a message or theory in minimum form – whether in language and/or graphics.

Models may be built on the basis of quantitative or qualitative data. The model presented in this paper is based on qualitative data from many case studies related to ALAR programs. It has been tested with participants in many workshops and programs in Australia, South Africa and Europe who found it useful for understanding the design, essence and processes of an ALAR program.

However, it is in the nature of ALAR that the model needs to be generic, flexible and

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This paper is a substantially revised and extended version of an earlier brief paper by the author, published in the *ALAR Journal*, Vol. 5 No. 1, pp. 41-50.



adaptable. Even if it needs to be replaced by a new one, this model is still useful as a starting point or guide for newcomers to the field, and also as a reminder to experienced facilitators or as re-enforced evidence for their practice.

The process of model building involves the following activities (Zuber-Skerritt, 1995, p. 4):

- looking for core categories, issues or problems in the data;
- identifying sub-categories;
- patterning the relationships;
- drawing various shapes (e.g. circles, spirals, square or round boxes);
- drawing lines and arrows between concepts and labelling the relationships; and
- experimenting, getting feedback from others, revising until the best way of representing the data, results or conclusions gradually emerges.

The following generic model for designing an action learning program, including action research projects, within an organisation has emerged from this process.

### A generic model

Figure 1 presents the eight main components of a structured action learning program that uses collaborative action research as a methodology for addressing a major organisational problem, issue or concern.

In all phases of this model there is a cyclical process of planning (including situation and problem analysis), taking action (or implementing the plan), observing (watching and evaluating the action), reflecting (on the ongoing process of planning, acting, observing and evaluating) and, as a result, revising the plan for a new cycle of action research. The following is a brief description of each of the eight major phases in the model (Figure 1). These phases are related to:

- (1) Problem definition and needs analysis.
- (2) Start-up workshop.
- (3) Project work.
- (4) Midway workshop with specialist input.
- (5) Project work continued.
- (6) Concluding workshop.
- (7) Preparing for presentations and publications.
- (8) Final presentation and celebration.

### Problem definition and needs analysis

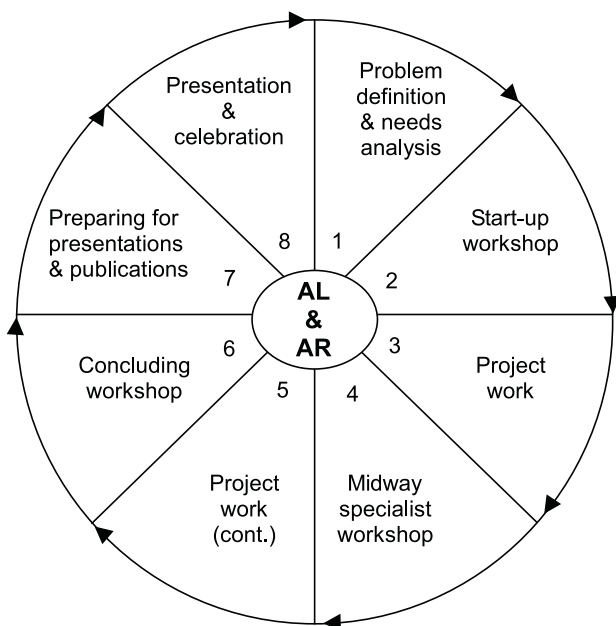
The first step is to identify the most serious concerns that a group of people in an organisation share. Next is to explore and decide upon what project might be feasible for the group to work on to address their concerns. Thus, the group identifies what Kurt Lewin termed a “thematic concern”, so that the team(s) can be selected and the project(s) can be defined. A team project is typically work-based and with significance and benefit not only for the individuals involved, but for the whole organisation or a section of an organisation.

It helps in running the program to provide background reading and resources before the participants begin the program. This enables participants to have a common information base and enhances the possibility that they will have shared understanding of the project’s key issues and its paradigms of learning and research.

### Start-up workshop

As the name of this workshop indicates, this is where group or teamwork begins. Ideally, this workshop should be residential, away from the usual workplace and family or other home commitments. The workshop location should be in a pleasant environment conducive to open discussion that promotes learning from and with each other. Learning situations are both formal through specified sessions and informal over coffee, meals, drinks at the bar or any shared activity. Key areas to be covered

Figure 1 A generic model for ALAR programs



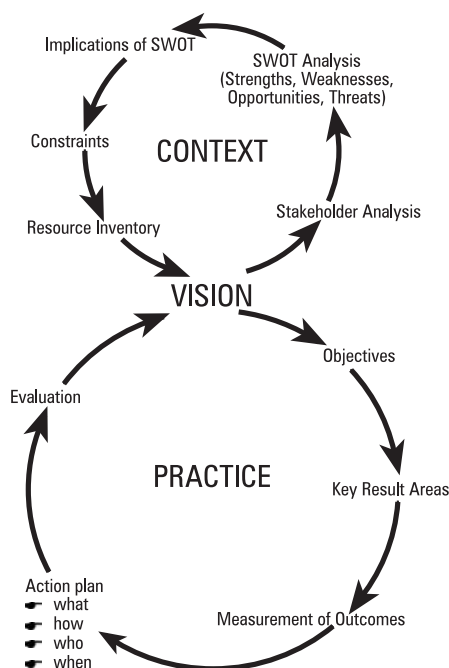
naturally depend on the organisation and the project topic(s) it has chosen on the basis of the needs analysis carried out in the first phase. Key areas include:

- vision building and team building;
- introduction to action learning, action research and process management;
- project design, management and evaluation;
- qualitative research methods;
- using information technology, library resources, electronic databases, and bibliography packages, such as “Endnote”, “Papyrus”, etc.;
- starting the process of project planning, following the “figure eight” process model below.

In Figure 2 we see the process model developed by the design team of the Queensland University action learning (QUAL) program described by Passfield in this journal issue. His consulting firm (SCOPE) has published a workbook for teams who wish to use this process model for their project planning. The workbook has been used widely in action learning and action research programs in Australia, South Africa, Austria, Germany, Hong Kong and Singapore.

The model consists of three major components (vision, context and practice) and several stages and cycles. The cycles are

**Figure 2** The process of project design and management



not in spiral form as in the action research model (see also the article by Altrichter *et al.* in issue 3, pp. 125-31), but in two iterative cycles forming a figure eight; hence the name of the model. The major components are:

- (1) *Vision*. We have used various team- and vision-building exercises and questionnaires, such as TMS – team management system – (Margerison and McCann, 1985) and AVI – a values instrument – (<http://www.minessence.net/html/aboutavi.htm>). We have used these instruments as a basis for discussing individual differences in learning and management styles; but we have also facilitated group sessions in which each team brainstorms, discusses and formulates a vision statement or preferably they draw a picture of what and where they envisage their project to be in about three years’ time. Each team vision is then presented to the whole group for questioning and further discussion.
- (2) *Context*. An analysis of the organisational and environmental context includes stakeholder analysis (internal and external stakeholders, those interested in and affected by the implementation of the project, and those with high or low influence/impact on the success of the project); SWOT analysis (strengths, weaknesses, opportunities and threats) and its implications for the team project; discussion of possible constraints; and an inventory and discussion of the existing resources and additional resources necessary for the project.
- (3) *Vision revisited*. After their context analysis the teams revise their vision, because it might be different now and more realistic in the light of the above discussions.  
It is important that enough time is spent on the above three stages before planning for improved practice begins. The reason for failure of many ALAR programs is that the teams start their projects straight away with aims and objectives and how to achieve them, without considering the contextual factors and human relationships first.
- (4) *Practice*. Planning for improved practice includes an analysis of the situation and the organisational problem or “thematic

concern” which must be shared and “owned” by everyone in the project team, followed by a discussion of and agreement on the aims, objectives, desired outcomes, outcome measures, action plan (what has to be done, by whom, how, by when?) and evaluation strategies and methods to be used.

Then this process of revised vision, context analysis and improved practice is repeated several times during the project implementation.

### **Project work**

This is the action part of the project. It includes data collection, analysis, feedback to participants in the research, and collaborative interpretation of results. It also includes an ongoing literature review, and monthly action learning meetings to monitor the progress of, and to support, project teams in their work and provide help when they need it.

### **Midway workshop with specialist input**

By about halfway through the program, the workshop teams will be able to develop a fuller picture of what most teams need to complete the project. So it is cost effective and sensible to bring the teams together at this midway stage. This creates the opportunity for participants to:

- request specialist input as needed;
- share problems and concerns, ask questions, explore answers and solutions;
- discuss “hot” issues and cutting-edge developments;
- hear from key speakers for focussed learning, thought and discussion; and
- reflect and self-assess in the light of other participants’ experiences and contributions to the workshop.

### **Project work (continued)**

This is the stage for further action and reflection as part of the fieldwork. By this stage the participants should be bringing their action in the field – their fieldwork – towards conclusion. This means, for example:

- interpreting results in the light of the literature review;
- model and theory building (grounded theory and personal construct theory) and making tacit knowledge explicit; and
- reflecting on personal and organisational learning.

### **Concluding workshop**

This workshop may be residential or at the regular workplace/organisation venue. Its purpose is to enable project teams to present and discuss their findings in first draft form and to reflect on their learning, as well as share their problems and possible solutions. The following discussion topics or activities might be included for participants to develop skills related to the project work:

- writing for different purposes and audiences;
- publishing reports, articles (in international, refereed journals), monographs and/or books;
- writing a dissertation (optional); and
- skills for presenting to different audiences and media, e.g. for radio and television interviews, the difference between oral and written presentations, the use of OHTs, PowerPoint and other audio-visual techniques, video productions, etc.

### **Preparing for presentations**

Oral and written presentations are vehicles for individual and team learning, reflection and conceptualisation. Written reports also document the processes of organisational learning, development, change, innovation and achievement. In unstructured action learning sessions, public presentation and accountability are often missing. Without them the learning becomes transitory or unnoticed; it is not appreciated and not duly rewarded. If, however, participants make the effort to commit their thoughts and findings to writing and public scrutiny, action learning becomes action research. This effort is of great value to the participants themselves, because they derive further insights and enrichment from the task of formally writing their ideas, experiences and reflections. In this way they grow and develop as professionals. The written works may also add value to the reputation or legacy of their organisation.

This written work may be in the form of a:

- report for the organisation’s executive and/or library;
- newsletter article;
- conference paper;
- published refereed paper in a national or international journal; and
- dissertation for a higher degree, e.g. a graduate certificate, a graduate diploma, a masters or doctoral degree.

### **Final presentation and celebration**

The culmination of an action learning program is always the presentation day. Relevant organisation(s), stakeholders and the wider community, the media and press are invited to witness this event and receive brief reports from project teams that outline the teams' aims, objectives, achievements, improved performance, learning outcomes for themselves and their organisation, and future action plans.

### **What makes action learning and action research programs successful?**

I am always impressed by how much time, effort and energy the action learning teams spend to make their project and the final presentation a great success. I believe it is because an action learning program fulfills the basic human needs set out in Glasser's (1984) classic theory. Glasser streams these needs into four categories: success/worth; fun/enjoyment; freedom/choice; and belonging/respect/love. I believe it is participants' quest to satisfy these basic needs that generates the momentum, personal commitment and ultimately then the success of action learning and action research programs. Let us consider how participation satisfies these needs.

#### **Success/worth**

The project teams come up with tangible results and success from completing the project. Team members are recognised publicly and acknowledged by their colleagues, top management and a large audience. This gives recognition of participants' contributions and achievements, which enhances feelings of self-worth and worth to the workplace/organisation.

#### **Fun/enjoyment**

Project teams work hard. But because team members are sharing and learning together in a collegiate spirit and with a shared goal, they have fun as well, especially in the start-up, midway and concluding workshops. In the monthly meetings and particularly in the final presentation there is usually a lot of energy and excitement.

#### **Freedom/choice**

Project teams are free to select their topics and many other aspects of their project. The

structure of projects encourages creativity and innovation throughout, but especially when participants explore alternative solutions. From the start participants are free to choose whether or not they will participate in the program.

#### **Belonging/respect/love**

Team members form alliances and networks. They are united by shared goals and actually working in close proximity to each other. Gradually they develop and share a common language and culture, they work in the same paradigm of learning and research, and they usually come to respect and like or at least appreciate each other.

### **What makes ALAR programs unsuccessful**

We might deduce from the previous section that ALAR programs are likely to be unsuccessful if the participants' basic human needs are not met. Indeed, from our experience and observation, it is true to say that participants (and their organisations) fail to learn and develop if they perceive:

- The project to be too difficult for them to bring to a successful completion, or if they feel inadequate (e.g. to make a public presentation or to write a report); this means no self-worth/success.
- Additional work and collaboration (required by the program) to be too demanding, time consuming, strenuous and to be avoided; this means no fun/enjoyment.
- Their participation in the program to be delegated from above and enforced by senior management (like committee work), rather than voluntary; this means no freedom/choice.
- Action learning and action research to be unknown, vague or "soft" methodologies, not "scientific" and "rigorous" enough for them to become involved; this means no respect for, love of, or belonging to an action learning community/culture.

### **Other potential pitfalls and how to avoid them?**

I agree with Marquardt (1999, p. 13) who has identified seven factors that can make action

learning ineffective for problem solving and organisational learning.

- (1) Inappropriate choice of project.
- (2) Lack of support from top management.
- (3) Lack of time.
- (4) Poor mix of participants.
- (5) Lack of commitment by participants.
- (6) All action and no learning.
- (7) Incompetent set advisor.

His advice on how to avoid these pitfalls, in summary, is for organisations and teams to make sure that they are in a position to:

- select a project that lies within the participants' authority and scope of responsibility in the organisation, and we might add that is of great significance, not only to the team members, but primarily to the organisation as a whole;
- have top management, both moral and financial support;
- allocate sufficient time for project completion and for reflection and learning during the meetings;
- form a "winning" team of participants to cover all necessary attributes and skills;
- own the problem and be committed to the program's success;
- emphasise learning, not just action, and maximise long-term organisational benefits; and
- use only trained set advisors.

From this discussion of what makes action learning and action research programs successful or not, we see how individual participants and teams are instrumental in shaping the process and outcome of these programs. However, I hold that learning programs are able to develop core values in participants that determine their action learning culture. From here let us turn to consider these core values.

### Core values

I categorise these values into nine concepts: systems thinking; synergy; collaboration and team spirit; openness; trust; focus on learning and questioning insight; symmetrical communication; and creativity. It is useful to consider each concept in turn to deepen our understanding of what happens when action learning and action research programs move from theory to practice.

### Systems thinking

Systems thinking is the ability to see the big picture (the whole rather than only its parts); to connect issues, events and facts in a holistic way; and to appreciate organisational learning as the basis of long-term competitive advantage.

### Synergy

Synergy is the willingness to share knowledge, information and skills for problem solving. A synergy brings the value that comes when the whole adds up to more than the sum of its parts. In other words, an action learning group can achieve more collectively than each member could individually.

### Collaboration and team spirit

Team spirit is the willingness or enthusiasm of team members to co-operate and collaborate in a team in order to create change and to make a significant contribution to the organisation(s) in which they work.

### Admitting ignorance or failure

Permeability, a term used in personal construct theory, means a readiness to be receptive of self-criticism and critique from others, to admit one's ignorance or failure, to be honest to others and oneself, and to use processes of self-reflection and reflection with others on and in action. For example, Revans (1991a,b) encourages reflection through discussion of what is not going well and sharing this with "comrades in adversity".

### Openness

Openness to new ideas, challenges and feedback from "critical friends" means participants must be willing to suspend their need for power, authority and control.

### Trust

Trust must be twofold: trust in our own ability to find solutions to a problem, and trust in our co-learners or co-researchers to have our, the team's and the organisation's benefits at heart.

### Focus on learning and questioning insight

Participants are encouraged to focus on the learning process, as well as on action, tasks, products and improved performance, through reflecting on their work, thought and decisions, and questioning their insights as

they move through the project. For example, reflection can be aided by keeping a log book or learning diary; insight and tacit knowledge can be elicited through questions like “What have you learnt from today’s session (or from the whole project or from the whole process of research and thesis writing)?”, “What were the milestones in your organisation’s learning?” and “What really brought about organisational change?”.

### **Symmetrical communication**

Symmetrical communication is a term used by the Frankfurt School of Critical Theory. It refers to mutual respect for individual needs and differences, recognition of each other as equal team members, and sharing responsibility for project outcomes as well as for processes of learning and team building.

### **Creativity**

This requires people to be willing to take risks, to be flexible and innovative, and to encourage others to be likewise.

When we consider the nature of action learning and action research programs, it becomes clear that having these nine core values among all participants is crucial in shaping both the process and the outcome of these learning programs.

### **Conclusion**

Here I have presented a generic model that uses collaborative action learning/research as its methodology for addressing a major issue in a workplace/organisation. This model offers a useful guide for conducting action learning/research programs since design is crucial to the program’s successful outcome. I have also discussed here the nine core values that I believe underpin action learning and action research because I recognise this is particularly important for those who conduct or participate in programs, aimed at major transformation, change or innovation in an organisation.

A well designed and structured action learning program becomes successful because

it develops these core values among participants. Process in action learning programs helps to satisfy participants’ basic human needs and contributes significantly to the participants’ professional development. Successful action learning programs also contribute to organisation development and innovation through addressing a major shared issue or thematic concern.

Successful action learning programs have much to offer workplace programs because these programs are flexible, creative and inspiring. The process model discussed here is particularly useful towards this end. However, I encourage the readers of this article to create and develop their own models representing their particular theoretical framework, concepts and systems of action learning and action research programs. Model building generally – that is, adapting, refining or modifying existing models and creating new models – is important, especially for postgraduate research students who are required to make an original contribution to knowledge in the field; and abstract concepts and generalisations are often easier to represent in the form of graphic design, such as mind maps, flow charts and diagrams.

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# Creating innovation and synergy through a parallel action learning structure

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## Keywords

Action learning, Motivation, Innovation

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## Abstract

This paper explains the underlying dynamics of the University of Queensland action learning program (1991-1999) through discussion of the parallel action learning structure (PALS) model. The author developed the PALS model as an outcome of his action research PhD study of the program, which was a development program for senior academic and administrative staff based on the principles of action learning and action research. This program achieved outstanding success and became a best practice model for other universities throughout Australia and elsewhere in the world. The PALS model described in this paper links the program design elements with personal and organisational outcomes and shows how these contribute to synergy and ongoing organisational energy and innovation. It also serves as a model for designing action learning interventions in other environments.

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## Introduction

The University of Queensland action learning program was introduced in 1991. It was designed to provide academic and general staff with the opportunity to:

- learn by doing and reflecting with supportive colleagues;
- form new and productive links across the university;
- achieve concrete results through projects important to the university and individual participants;
- develop participants' professional knowledge and leadership skills; and
- develop participants' skills to generate new questions through group problem-solving processes.

For the university and departments, the program aimed to:

- build a "learning organisation" with a culture for innovation and learning that will be better able to develop, assess and continuously improve its own quality management systems; and
- give recognition for promoting high quality learning through seeking solutions to major challenges and a commitment to excellence in teaching (Action learning program brochure 1999, University of Queensland).

The key features of the university's action learning program were:

- the integration of action learning and action research;
- group-based projects;
- multi-disciplinary project teams;
- involvement of academic, administrative and technical staff;
- funding of project teams on a competitive basis;
- project selection criteria that included demonstrated linkage to strategic organisational goals;
- program infrastructure incorporating program team, steering committee, sponsors, team mentors, and strategic project planning workbook;
- an action research approach to data collection, analysis, evaluation and dissemination;
- support group for mentors; and
- multiple evaluation modalities.

The structure of the 12-month program involved a residential start-up workshop,



regular team meetings (some of which were facilitated by mentors), regular whole group meetings, submission of a written report and public presentation of the project outcomes.

A full description of the Queensland University action learning program – its history, philosophy, structure, projects, resources and evaluations – is available at <http://www.tedi.uq.edu.au/ActionLearning>

From its inception in 1991, the university's action learning program incorporated each of the 12 elements that Dotlich and Noel (1998) identify as the key ingredients for successful action learning interventions.

The parallel action learning structure (PALS) model that is explained in this article is grounded in data derived from my role as participant observer over a period of six years, beginning with my engagement in 1991 as an external consultant and mentor to the program team. This engagement involved active participation with the program team in the design, facilitation and evaluation of the program.

The model links intervention processes with individual and organisational outcomes, and incorporates the concepts of a parallel learning structure (Bushe and Shani, 1991) and strategies for planned change (Chin and Benne, 1985). The process of my research is captured in my PhD study of the Queensland University action learning program (Passfield, 1996).

### **The action learning program: a parallel action learning structure**

In reflecting on the action learning program with which I was engaged at Queensland University, I became aware that the program represented what Bushe and Shani (1991) describe as a “Parallel learning structure”, a generic label to cover interventions where:

- (1) a “structure” (that is, a specific division and coordination of labour) is created that;
- (2) operates “parallel” (that is, in tandem or side by side) with the formal hierarchy and structure; and
- (3) has the purpose of increasing the organisation's “learning” (that is, the creation and/or implementation of new thoughts and behaviours by employees) (Bushe and Shani, 1991, p. 10).

Parallel learning structures typically involve a steering committee setting directions and providing authority. The main body of the structure comprises a number of small groups “with norms and operating procedures that promote a climate conducive to innovation, learning and group problem solving” (Bushe and Shani, 1991, p. 10). While members of the parallel learning structure continue to maintain their role in the formal structure, their relationships within the parallel structure are not constrained by their formal position.

Bushe and Shani (1991, p. 1011) describe the essence of the parallel learning structure in terms of the different norms that operate within it:

The key thing about the parallel structures is that they create a bounded space and time for thinking, talking, deciding, and acting differently than normally takes place at work. If you don't implement different norms and procedures, you don't have a parallel structure . . . The parallel learning structure provides a space and time where organisational inquiry is legitimate. Its existence tells people this is where it is okay to question, to express doubts and reservations.

The University of Queensland action learning program can be seen as a parallel learning structure with a number of additional key characteristics. The program incorporates the three criteria specified above by Bushe and Shani (1991), but it also creates a new structure that is parallel to the formal structure. This structure has its own power source (program sponsors), its selection and entry point (submission and evaluation of a project proposal), and is itself a formal structure with its own budget. The *raison d'être* for this structure is the achievement of individual and organisational learning. This formal structure acts parallel with the ongoing organisational structure and encapsulates a set of norms that differ in many respects from the organisational norms.

The net effect is that the action learning program creates and perpetuates a “parallel learning structure” with a difference. The focus within the program is not just “learning” but “action learning” (learning in and through action, and reflection on that action and its outcomes). The program incorporates the “action learning paradigm” identified in Table I and hence has an explicit set of norms, values and assumptions. A further difference with respect to Bushe and Shani's (1991) concept is that the action

**Table I** The action learning paradigm

**Artefacts**

- “Sets” – work teams, mixed teams, inter-organisational teams
- “Problem” – projects
- “People” – academics, students, technical staff, stakeholders, sponsors, general staff, administrators
- “Field of action” – immediate work area, different area

**Norms**

- Advice, challenge and support
- Challenging assumptions
- Questioning insight
- Treat each other as peers
- Admit what we do not know and what is not working well
- Take a system perspective
- Accept responsibility for own actions and own learning

**Values**

- Inclusiveness and respect for diversity
- Honesty and integrity
- Collaboration
- Relationships are important

**Assumptions**

- $L = P + Q$  (learning equals programmed knowledge plus questioning insight)
- Current knowledge and skill are born of lived experiences occurring in a previous time and space and, in that sense, are environmentally relative
- Past experience can generate misconceptions, not only because our perceptual capacity is limited, but also because the past is different from the present and the future
- Learning can be defined as “our ability to adapt and change with such readiness that we are seen to change” (Revas, 1981, p. 136)
- People learn with and from each other when they acknowledge their common ignorance and vulnerability
- Learning is a social process involving collaborative reflection on action
- “You can’t hope to understand anything before you have been required to apply it reasonably” (Revas, 1982, p. 655)

**Source:** Passfield (1996, p. 263).

- diffusion strategies that explain the action learning paradigm and disseminate results in order to achieve organisational learning (adapted from Passfield, 1996, p. 268).

These strategies for planned change, incorporated in the program, form the three pillars of the PALS.

**The three pillars of the parallel action learning structure: strategies for planned change**

When I came to aggregate my findings in relation to the design processes used during the action learning program, I was reminded of the categorisation developed by Chin and Benne (1985) in their classic study of planned change strategies. They took an historical perspective and examined planned change strategies from the time of the enlightenment and classical liberalism. Through this extensive research, they identified three types of general strategies for effecting planned change which they called “empirical-rational”, “normative-re-educative” and “power-coercive”.

The key differentiating aspect among the categories is the source of influence of the change strategy. Empirical-rational strategies derive influence from knowledge, normative-re-educative strategies use non-rational determinants of human behaviour, while power-coercive strategies draw on political and economic sanctions and moral power.

One of the reasons why the University of Queensland action learning program has been so effective is that it employed each of these categories of planned change and, within each category, used multiple processes. This approach is in line with Dick’s (1991) concept of “over-determining the outcomes”. The categorisation of the intervention strategies used in the action learning program is given in Table II.

The integration of these planned change strategies provides the three pillars for the PALS:

- (1) power strategies create a formal structure parallel to the main organisational structure (with its own selection processes and entry point);

learning program has explicit diffusion strategies as a core element of its structure (discussed below under strategies for planned change).

Thus the program represents what I call a “parallel action learning structure” because it is a formal structure that operates parallel with the main structure for the purpose of developing a learning organisation. It incorporates:

- power strategies that enlist sponsors in the task of supporting organisational learning;
- normative strategies based on the action learning paradigm (see Table I) and a vision of the learning organisation; and

**Table II** Categorisation of intervention processes in the action learning program**Normative-re-educative strategies**

Normative development of participants through residential workshop  
 Team building and personality profiling of project teams  
 Visioning by program team and project teams  
 Critical reflection by program team and project teams  
 Mentors as process facilitators for project teams  
 Modelling by program team, mentors and sponsors  
 Participant-controlled workshops  
 Continuous process and outcome evaluation through congruent processes

**Power strategies**

Key executives as program sponsors  
 Visible involvement of vice chancellor (CEO)  
 Senior managers as project sponsors  
 Power elite as advisory and selection committee  
 Management of relations with sponsors  
 Competitive funding for innovation  
 Public accountability through presentation days

**Rational-empirical strategies**

Information sessions  
 Strategic planning workbook  
 Action research by program team and project teams  
 Project team reports  
 Participants linked by e-mail  
 Just-in-time expert input  
 Mechanisms for exchange of ideas and innovations between project teams  
 Feedback channels

**Source:** Passfield (1996, p. 261).

- (2) normative-re-educative strategies develop different norms within this “parallel learning structure”; and
- (3) rational-empirical strategies explain the purpose of this structure in terms of action learning and organisational learning, and disseminate the benefits and the results of participation in this structure.

The PALS model takes this analysis further by seeking to explain the resulting dynamics. It does this by linking the PALS and related change strategies with individual and organisational outcomes from the program.

The rest of this paper progressively builds the PALS model by exploring the initiating dynamics of collaboration and dialogue, linking these to individual outcomes, and exploring the resulting synergy and organisational outcomes. The PALS model is

then shown as a self-perpetuating, energising system that builds organisational capability.

**Developing collaboration through the parallel action learning (PAL) structure**

The parallel action learning (PAL) structure of the program emerges through the combined influence of the normative, power and diffusion strategies that, when integrated, develop dialogue across sub-cultures and build collaboration.

The three broad strategies for planned change incorporated in the program, working in concert, build collaboration and engender strong personal motivation and commitment through the agency of the outcomes experienced at the individual level. The integration and internal consistency of these strategies are critical for achieving individual and organisational outcomes.

The key implication of the power strategies incorporated in the program is that the power elite and senior managers are collaborating with academic, administrative and technical staff in the process of personal and organisational transformation. A corollary is the resulting visibility for both participants and senior sponsors. This has the effect of bringing together those who desire to create change and those who have the power to make it happen.

Normative strategies work towards the development of a collaborative ethos through the development of trust, team work, respect for individual differences and openness about inadequacies.

Diffusion strategies within the program build collaboration through encouraging the sharing of ideas and innovations, challenging existing mindsets and mental models, promoting systems thinking and diffusing results. Action research, which is integral to the rational-empirical strategies, reinforces collaborative diagnosis, planning, action and evaluation.

Thus collaboration, which is a key element of both the action learning and action research traditions, is an intermediate outcome of the program. Rational-empirical strategies provide the rationale and argument for collaboration; normative-re-educative strategies demonstrate collaborative behaviour and values; power strategies enlist

key stakeholders in the process of collaborative change.

This “collaborative mode” results from dialogue that is promoted between all parties within the PAL structure. The experience of collaboration, in turn, builds dialogue so the flow of influence is bi-directional.

### The PAL structure – collaboration through dialogue

Schein (1993, p. 50) suggests that what impedes organisational learning and development is the existence of subcultures. Differences in language, assumptions, norms, values and frames of reference in sub-groups create the divide that disempowers individuals and groups. He argues that:

The need for dialogue across subcultural boundaries, especially across hierarchical boundaries is, therefore, one of the most pressing needs. Much of what we call bureaucracy, in the bad sense of that word, stems from misunderstanding across these kinds of boundaries.

The interpretation and analysis of data from the program demonstrate the power of the PAL structure to engender dialogue between diverse individuals, groups and levels. The evidence supports the view that the processes in the program build collaboration by encouraging dialogue between:

- members of a team;
- members of different teams;
- members of different faculties, departments and campuses;
- members of teams and their sponsors;
- members of teams and their mentors;
- mentors and the program team;
- members of the different categories of staff employed in the university.

Dialogue emerges because the PAL structure promotes the exchange of assumptions, perspectives, ideas, values, beliefs, visions, feelings, and innovations across all program participants. The value placed on dialogue within the program is epitomised by the 1994 project, which set out to create a multi-disciplinary approach to a first-year course in bio-medical ethics. The participants in this project were drawn from a wide range of perspectives and disciplines including theology, social work, medicine and behavioural science. Their first tasks were to discover what had been written worldwide

about cross-disciplinary dialogue and to teach themselves how to dialogue. They developed an innovative approach to teaching and assessing this course by incorporating the contribution of different disciplines as well as problem-based input by leading practitioners.

Schein (1993, p. 43) argues that “dialogue” is not just discussion or sensitivity training but rather a process of mutual exchange that goes beyond surface level disclosure and self-awareness:

... dialogue focuses on getting in touch with underlying assumptions (especially our own assumptions) that automatically determine when we choose to speak and what we choose to say. Dialogue is focused more on the thinking process and how our perceptions and cognitions are formed by our past experience. The assumption here is that if we become more conscious of how our *thought processes* work, we will think better, collectively, and communicate better. An important goal of dialogue is to enable *the group* to reach a higher level of consciousness and creativity through the gradual creation of a shared set of meanings and a “common” thinking process (emphasis in original).

The power, normative and diffusion strategies incorporated in the PAL structure promote this sharing of “thought processes” and engender “higher levels of consciousness and creativity” as reflected in the innovations achieved by project teams in the program. Schein (1993, pp. 42, 40) argues that such dialogue is “at the root of all effective group action” and that dialogue “becomes a central element of any model of organisational transformation”.

Thus we could represent the impact of the PAL structure in the first instance as the creation of dialogue because the very act of forming a team to join the structure requires dialogue. The process of dialogue, however, acts in two directions – as feed forward to the development of collaboration and feedback to the program team for refinement of the PAL structure. This bi-directional relationship highlights the role of dialogue as the mechanism by which collaboration is achieved.

The PALS model explained in this paper thus incorporates “dialogue” as a central component and the catalyst for collaboration. While dialogue is preceded by the willingness to collaborate, collaborative action is built through dialogue. Collaboration, in turn, builds motivation.

## Collaboration as motivation

The experience of dialogue in lieu of debate, and of collaboration in lieu of competition, which is in direct contrast to the daily experience of competitive behaviour in the formal structure, builds the motivation of participants in the program.

My own findings in relation to the motivating influence of collaboration, through the agency of the program, are validated by a parallel but different program conducted at the Queensland University of Technology (QUT). Scott and Weeks (1995), in describing the teaching, reflection and collaboration (TRAC) network at QUT, provide this evidence of the motivational effects of collaboration within a university setting.

While Scott and Weeks (1995) do not set out to identify the reason for the motivational influence of collaboration, they do identify individual outcomes from the TRAC program that are consistent with the individual outcomes of the University of Queensland action learning program. Reflecting on the power of collaboration as a motivator, I became aware of the agency of these individual outcomes in influencing the motivational outcome.

## Motivation through positive psychological outcomes for the individual participant

The data from my research of the program highlighted two key categories of personal outcomes for individual participants, which I labelled “redefined self” and “relatedness”.

Redefined self emerges through extending one’s comfort zone; experiencing peer challenge and support; empowerment through access to information, people and resources; the development of new confidence and competence; and the growth of self-efficacy. Relatedness develops through the experience of connectedness; enhancement of meaning; understanding of linkages; development of new and richer relationships; and appreciation of teamwork. Dialogue provides the oil to lubricate the collaborative process and engender these positive psychological states.

These positive psychological states build motivation and commitment to project and

organisational goals. Collaboration, through the agency of the positive psychological states, enhances internal motivation and strengthens commitment. This is in line with Hackman and Oldham’s (1980) findings that ideal job design characteristics produce the positive psychological states of autonomy, meaning and responsibility and develop high levels of internal motivation.

Collaboration is the new condition, the change in context through the PAL structure, that engenders the experience of the positive psychological states of redefined self and relatedness. People who have participated in the program have indicated that they experienced an increased capacity to collaborate, as well as improved working relationships. The Vice-Chancellor at the final presentation day for the 1994 program highlighted this latter outcome – relationship development – as a very significant outcome.

The evidence of the program suggests that the relationship between collaboration and the experienced psychological states is bi-directional. In other words, people who have experienced redefined self and relatedness have an even stronger desire and capacity to engage in collaboration as a result of this experience.

The PAL structure provides the mechanism for dialogue, which generates collaborative activity. The experience of dialogue within the collaborative endeavour leads to the experience of positive psychological states, which in turn motivates individual and team contribution to project and organisational goals. Thus collaboration through the mechanism of the experienced psychological states acts as a motivator.

The impact of this heightened motivation and commitment is evidenced by the outcomes of the action learning program which won several awards for its contribution to the professional development of staff and the achievement of organisational outcomes such as innovation, waste reduction and significant improvements in the quality of teaching, learning and administration.

In exploring the interaction between individual outcomes (experienced psychological states) and organisational outcomes, I became acutely aware of the intermediate role of “synergy” in accelerating the impact of participants’ heightened motivation.

## The multiplier effect of synergy

Writers such as Kanter (1990) who wrote about organisations that were “desperately seeking synergies” developed the concept of synergy, which has its origins in the systems literature. I am writing here about the outcomes where the whole exceeds the sum of the individual parts – outcomes that are the *raison d'être* of organisations. The concept of synergy appears to explain what the then vice-chancellor, Professor Brian Wilson, described as the high leverage value of the program:

And I guess I've seen this [the action learning program] as a high leverage operation. I've put \$100,000 into it at the beginning and the effects of that have multiplied, multiplied and multiplied. If you had given a CAUT (Committee for Advancement in University Teaching) grant for \$100,000, it couldn't have achieved the same effect. In one narrow area, perhaps, it might have created a nice change (Passfield, 1996, p. 276).

The multiplier effect of synergy at the organisational level parallels the similar effect of collaboration at the individual level. Both synergy and its precursor, collaboration, have a “feed forward” impact as well as a “feedback” effect. This was illustrated in the residential for the 1995 program, that the program convenor described as a unique experience of “synergistic creativity”. The experience of synergy heightens motivation and excitement, which, in turn, strengthens the desire to collaborate.

Achieving synergy is a significant outcome in its own right and arises out of the reported participant outcomes that are listed below:

- a better understanding of where I fit into the overall organisation;
- improved awareness of the resources available within the university;
- a sense of being more connected to the rest of the organisation;
- improved access to information that is relevant to my job;
- a better understanding of, and relationship with, colleagues;
- the ability to make better use of the resources available to me;
- an improved understanding of organisational systems and procedures; and
- a greater tolerance and respect for different skills, perspectives and approaches (Passfield, 1996, 2001).

Limerick and Cunnington (1993) suggest that synergy occurs when empowered people are linked. My own research confirms this view but adds other precursors for the occurrence of synergy. I summarise these precursors as follows:

- people in dialogue across subcultures (including hierarchical cultures);
- engaged in collaborative activity;
- while experiencing redefined self and relatedness; and
- growing in internal motivation and commitment.

The PAL structure acts as a generator of synergy through the agency of dialogue, collaboration, experienced psychological states of redefined self and relatedness, and the resultant heightened motivation and commitment. Thus synergy occurs where highly motivated people, engaged in dialogue across subcultures, undertake collaborative activity that provides the opportunity to pursue simultaneously individual and organisational goals.

Organisational learning and the resultant synergies are evident from the outcomes of the action learning projects. Through participation in the action learning program, staff members were able to break through the barriers that prevent people from working together to solve complex organisational problems.

## Synergy and organisational outcomes

The achievement of synergy leads to organisational outcomes such as innovation, waste reduction, productivity, and leverage for change. Many of these outcomes are made possible only by achieving synergy, which is why innovation rarely occurs within bureaucracies. The criteria for projects in the action learning program suggest that the resolution of complex, unstructured problems requires the realisation of synergy through the collaborative efforts of diverse groups of people.

Schein's (1993) discussion in relation to “dialogue” that was introduced earlier suggests that synergy is a logical outcome of the dialogue process because it leads to heightened consciousness and creativity.

What results for the organisation is enhanced capability – at the individual, team



the first place, it increases the individual's opportunities to be assigned challenging, growth-enhancing tasks, thereby increasing individual motivation and energy. Second, it increases individual power and influence by opening up access to information, resources, support, and visibility. When people feel more powerful in their organisations, their commitment and their effectiveness increases as well.

## Conclusion

The PALS model serves as a model for action, providing the reader with an explanation of the dynamics of the action learning program while presenting a template for exploration of similar interventions in other contexts.

The model is grounded in the data emerging from my role within the action learning program at the University of Queensland and seeks to integrate my findings in relation to process design and the resultant individual and organisational outcomes.

On the basis of my experience with the QUAL program, I developed the following operational definition of the action learning organisation:

An action learning organisation exists where members of the organisation at all levels consciously collaborate through action and reflection in the process of personal and organisational transformation (Passfield, 1996, p. 296).

I can conclude with a sentiment expressed by Bushe and Shani (1991, p. 158) concerning the contributions of their book:

Our hope is that the book stimulates further research on structures and processes that engender innovation, productivity, cooperation, adaptation, and learning in bureaucratic organisations.

My hope is that this paper does likewise.

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# Postgraduate programs using action research

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## Abstract

This paper is Bob Dick's latest conceptualisation of much of his extensive work (including his AREOL course: action research and evaluation online). His focus is on postgraduate programs. He discusses the choices that a postgraduate student faces in conducting action research: as a technician or craftsperson; primarily theory-driven or data-driven research; emphasis on action or research; choices in methodology; and choices in methods to involve people and to collect and analyse data. He also takes up other key issues including literature review, generalising and writing.

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## Introduction

Postgraduate students often choose action research, and its cousin action learning, for their theses and dissertations[1]. In this paper I consider the advantages and disadvantages of these research approaches. I also consider some of the important choices faced by candidates who consider using action research for their study. Most of my discussion here concerns action research, since for most postgraduate students this is the component most evident in their thesis. Some students may also use action learning as part of the methodology of their thesis or dissertation. The most important contribution of action learning, however, is its use to create a support network, as I discuss below.

I am not evangelistic about action research or any of its many different varieties. To my mind, good research is designed to fit the interests and skills of those involved. It is partly created by and helps to create the research situation and the research questions. Depending upon the researcher and the research task you may choose mainstream action research, an extension or modification of action research, or something else entirely.

Unlike some of my colleagues, I hold that most aspects of research design are open to choice. For example, I do not believe that action research must be participative, or qualitative, or published. It often is and I accept this. Indeed, many writers argue for one or more of these characteristics. But I do not recognise this as a convincing reason to limit my own research choices. You will make up your own mind.

If action research is not necessarily participative, qualitative or published, what is it and what are its characteristics? Broadly speaking, I think of it as a family of research methodologies that pursue the dual outcomes of action and research. In that sense it is true to its label. This is one of the reasons why it is particularly suitable for postgraduates who wish to improve their own work practice while they pursue a postgraduate qualification. Like most other proponents, I hold that action research profits from the use of a cyclical or spiral process in which the researcher alternates action with critical reflection. I regard its cyclical/spiral process and pursuit of both action and research as defining characteristics of action research. If these



characteristics suit what you plan to do in your research, then action research may be a good choice for you. I subscribe to the design principle that form follows function: decide what you want to do, then decide how best to do it.

### Action research for theses and dissertations

As I said above, I think of action research as a family of methodologies, each of which simultaneously pursues action and research. The action takes the form of change, improvement or implementation in one's workplace. The research consists of learning and understanding, often leading to publication of results.

Both processes – action and research – and their outcomes are likely to be important to a higher degree candidate. The research component is obligatory in a thesis or a dissertation. Some candidates find it useful to emphasise the action component. Depending on their research question they may face a choice between theory-driven and data-driven research. Let us consider these choices.

#### Choice 1: theory driven or data driven?

I believe that the distinction between qualitative and quantitative research is less important than that between theory-driven and data-driven research. I think it is a choice of paradigm, in the sense in which Kuhn (1970) and others use that term.

To make this distinction more evident, let me overstate it a little:

Do you want to do research that turns first to a body of extant literature and contributes to knowledge by extending, refining or challenging it?

This is theory-driven research. Those who prefer to take this path may be better choosing an approach other than action research. It appears that most current quantitative research and much qualitative research takes this theory-driven form. If you begin from a different source and perspective, what can you do?

Do you wish to deal with the research situation and the people in it as they are, as far as possible putting aside your preconceptions so that you are more open to experiencing the research situation fully?

This is data-driven research. It is responsive to the situation, and flexible. The form of action research that most interests me takes this second form. I argue below that it offers particular advantages to the higher degree candidate who wishes to research her[2] own practice, improve her research situation, and add to her qualifications.

Let me be clear here. I am not saying that all action research is data driven. Sagor (2000), for instance, clearly acknowledges that his approach is more quasi-experimental than anything else. Neither am I saying that all data-driven research is action research. Glaser in particular describes a strongly data-driven form of grounded theory in his writing (for example Glaser, 1992, 1998). I would also expect heuristic inquiry (Moustakas, 1990), among other methodologies, to work well as a strongly data-driven approach.

For a higher degree candidate using a theory-driven or data-driven approach this is a crucial choice. A data-driven approach carries some risk. But it also offers advantages because of its dual goals of action and research. Let us consider the costs and benefits of data-driven action research. I see potential for risk in three main forms:

- (1) The candidate may well have expectations based on prior training or experience in theory-driven research. This may mislead her as she goes about her thesis work.
- (2) The way in which universities structure higher degrees is often premised on the assumption that good research is theory driven. For example, postgraduate research students may be expected to spend their first year digesting the literature and writing a summary of the literature before their candidature is confirmed.
- (3) Some examiners may be surprised by data-driven research because it does not fit their notion of legitimate higher degree research. Among them may even be some examiners who regard themselves as sympathetic to and supportive of such approaches as action research.

Recognising these risks from the outset, the person choosing a data-driven approach must be conscious of the potential to be misled by research experience. They must also have thought carefully about justifying their choice as they will need to argue the case very clearly

and cogently. Those who choose this approach because they imagine it is easier and bypasses a lot of academic reading are mistaken. These are not risks to be undertaken lightly.

Yet despite these risks, the advantages of data-driven action research may sometimes be very attractive. I think this is particularly true when the three possible outcomes of data-driven action research are all important to you as a researcher:

- (1) In the course of doing the research, you are able to study and improve your own practice. In effect you use the higher degree as valuable personal and professional development. You may also form a learning set with other postgraduate students for mutual support. Personal and professional development can then be enhanced further.
- (2) One of the purposes of action research is to improve the research situation. If you research your own practice, it is very likely you will also improve your work situation because you better understand your place in it. The action outcomes you achieve are also likely to benefit your organisation or community.
- (3) And of course, with successful completion of your action research you gain a higher degree qualification.

I have recently co-supervised[3] a number of action research practitioners who, by the end of their higher degree, had achieved all three of these outcomes. All of them worked full time in demanding jobs. Yet most completed their degree in approximately the same time as do most degree candidates who are enrolled full time.

### The implications of data-driven research

It may appear from what I have said above that data-driven action research is an easy choice for candidates who find the three advantages appealing. Let me therefore depict in more detail two of the features of this approach that may surprise some prospective degree candidates as well as some supervisors, committee members and examiners.

First, when you use a flexible and responsive approach you probably cannot know where the data will lead you. Choice of

literature is therefore difficult; at the start of a study you may not know what literature will later become relevant. It therefore makes sense to postpone reading until the relevance of literature can be judged easily. In turn, this may have consequences for the structure of the eventual thesis.

Second, it is not just the researcher's interpretation – understanding – that emerges slowly from the situation. So does the research methodology. You can begin action research by asking initially fuzzy questions using initially fuzzy methods, thereby gaining initially fuzzy answers. You may then use those initially fuzzy answers to refine your methods as you proceed. To say it differently, research content and research process both develop as the research proceeds.

Checkland and Holwell (1998) add a further component. They describe research as a framework  $F$ , operationalised as a methodology  $M$ , focussed on an area of concern  $A$ . In the course of the research one learns about and therefore modifies  $F$ ,  $M$  and  $A$ . I think these authors are talking about all research. And I think they intend their framework  $F$  to be an epistemological framework, consisting, for example, of assumptions about what counts as knowledge. I look forward to the day when all researchers will be expected to explain and justify their epistemology, their methodology and methods, and their conclusions. I think it is evident that such an approach encourages researchers to be more mindful as they go about their research. (I take the adjective "mindful" from Bentz and Shapiro (1998). This brings us to the second choice. How is the candidate to engage with the research methodology and with the supervisor or committee?

### Choice 2: researcher as technician or performing artist?

I might as easily have taken this as the first choice, for it can apply to all forms of thesis and dissertation research. We could describe it as an existential choice.

Here I phrase the choice in the following form:

Do you want to be an apprentice who will learn thoroughly, from your supervisor, committee and literature, a particular approach to research? That is, will your learning be primarily propositional? At the conclusion of such a research program you can expect to know how to

do one form of research. To overstate the situation, this is research by recipe.

Or do you expect to engage in research with whatever resources and understanding you can bring to bear, learning from your experience? That is, will your learning be primarily through questioning inquiry, with supervisor and committee functioning as mentors rather than as teachers? Such an approach will engage you in examining your assumptions about the nature of knowledge and of methodologies. This is research as performing art.

You may recognise the influence of Checkland and Holwell (1998) and also of Revans (1983) in the phrasing of this choice.

Action research lends itself to the second of these options. It alternates action with critical reflection. That critical reflection can be about the data and the interpretations that the researcher is making from the data. It can also critique and improve the methodology. Beyond that, it may be used as an opportunity to examine the assumptions about knowledge that inform the research design.

There are also enticing and often unnoticed parallels between action research and experimental research (I was trained as an experimental psychologist). It seems to me that good researchers refine their methodology and methods from study to study. They use an informal process that resembles the spiral nature of action research. In contrast to action research they apply it only from study to study, whereas in action research each turn of the spiral is an opportunity for learning and change.

If I were embarking on a study with highly uncertain outcomes I think I would begin with action research. This would allow me to build enough understanding to decide which methodology and methods best suited my research situation and my research question. Whatever methodology I chose, I could still use action research as a “meta-methodology”. I could thus enhance my learning about whatever methodology I was using.

I expect it is by now apparent that action research offers substantial flexibility and responsiveness to a complex situation. It is thus particularly useful not just for postgraduates or scholars in academic research but also for others who need responsiveness to complex situations – people such as managers or professionals – to address issues in the workplace or other difficult situations. Action research provides an opportunity to achieve some important

practical outcomes. If you choose action research you can choose to embark immediately on action. This brings us to a third choice.

### **Choice 3: “action research” or “action research”?**

Action research is action and research. Either of these elements may be emphasised to produce a distinctive meaning:

Is your main intention to bring about change, with research outcomes as a desired but forsakeable bonus? This will be action-oriented research.

Or do you desire above all to do good research, with change as a hoped-for but not essential outcome? This will be research-oriented research.

This is not to say that action research must be one or the other. Action and research can complement each other well as objectives. All else being equal, better understanding of a situation allows us to change it more effectively. For the most part, trying to change a system will give you a better understanding of it. As choices, action and research are emphases, not ultimates and not exclusive of each other.

In any event, for thesis purposes you have a more limited choice. Almost certainly, you need research outcomes. So your choice may be about how much change you are going to pursue and who is most appropriate to pursue it. In turn, that may influence how participatory you are able and willing to be.

You may have little interest in action. You may nevertheless wish to be flexible in pursuing understanding of the situation on its own terms. If so, action-research-like processes may serve you well (though you may offend those whose commitment to action research is ideological). Alternatively, you may find grounded theory a better choice. It too is a data-driven approach, though this is truer of the version championed by Glaser (1992) than of that by Strauss and Corbin (1997, 1998).

You may also “mix and match” methods within action research. There are methods used in grounded theory that may be incorporated in action research, and vice versa. Yet it is important to note here that action research can be rigorous without surrendering action outcomes. The sources of rigour may be different to those that characterise other research styles, especially theory-driven research. But they are no less effective.

## Rigour in action research

This is more of an imperative than a choice. Your thesis will be expected to make a contribution to knowledge. You will be expected to demonstrate that your claimed contribution is supported by rigorous research, evidence and argument.

The danger is that your supervisors or committee, and your examiners, may assess rigour using criteria appropriate within their own paradigm. They may value quantification, precise research questions, substantial early literature review, and the like. It is therefore important that you understand the ways in which action research achieves rigour so that you can justify convincingly what you have done.

Some of the arguments you can use for this purpose are to be found in the qualitative literature generally. Here I think particularly of the well-reasoned monograph by Kirk and Miller (1986). Also relevant are Patton (1990), and many of the papers scattered through Denzin and Lincoln's (1994) handbook, among others.

For the most part, I have not found the action research literature particularly concerned with issues of rigour. Some of the better arguments for rigour are to be found in work that some would regard as at the margins of action research. I think here of such writers as Argyris (particularly Argyris *et al.* (1985)) and Checkland (particularly the first half of Checkland (1981)) among others.

The tight spirals of action research, however, deserve special attention here. Their main function is to provide flexibility and responsiveness for effective change. They also confer two advantages that are less evident in theory-driven research:

- (1) Each turn of the spiral provides you with yet another chance to test the interpretations you have so far developed against the data you are collecting.
- (2) Within each turn you develop plans to test in action. Each turn of the spiral is a miniature test of the assumptions that guided your plans.

These advantages derive from the nature of each turn of the spiral. I described this spiral earlier as alternation between action and critical reflection. The critical reflection can also be regarded as having two components. First is a review of the results of the previous action. Second is the planning for the next

action. Action research can be described as a regular cycle of planning, action and review.

It can also be viewed as Kemmis and McTaggart (1988) explain: "plan, act, observe, reflect". You may note its similarity to other cycles, such as that for experiential learning (for example see Kolb, 1984) or for quality management (for example see Rothwell *et al.*, 1995).

Not all varieties of action research emphasise its spiral nature which, to my mind, confers on action research many of its advantages. There are different versions of action research to choose from. Here we see how action research offers the flexibility that it advocates.

### Choice 4: which action research methodology?

Methodological choices in action research are many. Here I attempt to sketch the breadth of choice that researchers face, and some of the varieties that are possible. They include:

- many varieties of participative (or "participatory") action research (PAR), as explained by, for example, by Whyte (1991), Greenwood and Levin (1998), Smith *et al.* (1997), and Zuber-Skerritt (1996), to name just a few;
- several varieties of systems methodology, including those of Checkland (Checkland and Scholes, 1999) and Flood (1997);
- teacher research such as that of Mills (2000), Hubbard and Power (1999), or the "living theory" approach of Whitehead and his colleagues (Whitehead, 1993), among others;
- the substantial body of work on "action science" developed over many decades by Argyris and his associates – Argyris (1999), Argyris and Schön (1996), or Argyris *et al.* (1985);
- approaches whose similarity to action research is more or less explicit; for instance those of Forrester (1999), Heron and Reason (1997), the "action inquiry" of Torbert (Fisher and Torbert, 1995), the "action evaluation" of Rothman (1997), and some aspects of "appreciative inquiry" (Elliott, 1999);
- finally, some of the participative evaluation methodologies, such as the utilisation-focussed evaluation of Patton (1997) and the fourth generation evaluation of Guba and Lincoln (1989).

This by no means exhausts the possibilities.

In planning this paper I intended to comment on choosing from this rich array. But that is a task too large for the parameters of this paper. Instead I will suggest the following issues that may be useful to guide decisions on research methodology:

- Is your chief motivation for using action research your strong commitment to participation and equity? This may indicate that the more deliberately participative approaches are suitable for you.
- Do you want to develop your understanding of a richly interconnected and complex system? Especially if you can treat it as an information system or a decision-making system, one of the systems methodologies may be indicated.
- Do you work in an academic setting where action research is regarded as a fringe paradigm and is highly suspect? You may then be able to frame your research as “evaluation”, which may be more respectable to others in your academic setting.
- Are you drawn towards understanding how interpersonal relationships and system dynamics interact to undermine or produce effectiveness? Action science was devised to address this issue.

Each of the methodologies mentioned above offers its own flavour and style for conducting research. As mentioned earlier, there are valid reasons to avoid the literature related to your research theme if your approach is data driven. The methodological and philosophical literature, on the other hand, is well worth your early perusal, especially for insights into choosing and gathering your data.

From here we will turn to address a fifth choice concerned with the researcher’s level of participation in the research project. My experience suggests this is a contentious point, so I will first state my position clearly.

### **The virtuous spiral**

It seems to me that there are two important dimensions to action research. The first relates to the action, which is more likely to be achieved if there are high levels of participation by the people involved in the research. You may also choose strong

participation to be consistent with your own ethics or values. The second dimension may be found in the strategies the researcher pursues to maintain rigour. These must be effective within a process that is very flexible and very responsive to the research situation. The strategies are developed for that reason. They are not a second best approach because the best is not available. They have virtue in their own right and derived from different sources.

You might decide that extensive participation is not for you. You may decide it is too difficult for a thesis. It may introduce complications you wish to avoid. You might nevertheless decide that you can use action-research-like processes for data collection and analysis. In other words, you might still make use of data-driven action research processes for the research, but be less concerned about the action. This introduces our fifth choice.

### **Choice 5: what extent and style of participation?**

As I mentioned above, participation is a contentious issue and in some quarters this has become an ideological choice. For many people it is therefore not a choice but an imperative. Yet even if you accept participation as imperative there is a spectrum of participation from which one can choose. This stretches from minimal participation, if any (see Clark, 1972), through to “do it yourself” approaches (cf. Wadsworth, 1984).

At one extreme is much “teacher research” where an educator researches her own practice and pupils may or may not be involved. Towards the other extreme are approaches seeking “emancipation” as a goal and treating political considerations as an issue. Many of these approaches are to be found in research that takes the ideas of Habermas (1984, 1987) as its foundation. The Deakin School (Kemmis and McTaggart, 1988) which favours this approach has been influential in educational circles in Australia. Elsewhere there are similar approaches, for instance that of Toulmin and Gustavsen (1996). Other critical approaches (for example that by Ghaye and Ghaye, 1998) draw on yet other foundations.

In any event, participation is far from being an all-or-none choice. Who will you involve? How will you go about involving them? What

will you involve them in? Each of these questions offers further choices:

- In large communities and organisations, will you involve everyone? Will you also involve those outside the community or organisation who also have an interest? If numbers are very great, will you reduce the depth of participation to make room in your research for everyone?
- How will you approach people and engage them in the research process? For instance will you broadcast invitations widely? Perhaps you will slowly build relationships as you work your way through the networks. Or will you set up a steering committee, reference group, or the like, and ask this body to involve others?
- You will probably want to approach people to be informants. Beyond this, what will you involve them in? Will they interpret the data as well as provide it? Will they help you design the study? Of course, you will write the thesis or dissertation. But if there are other reports, who will write them?

These are important questions, I believe. Yet in much of the action research literature they are not given much attention.

Fortunately, other fields address these issues in ways that are relevant to action researchers. I include here evaluation (see Gregory, 2000) and the literatures of organisation development (for instance, Toulmin and Gustavsen (1996)), community development (McNair, 1998) and rural development (Chamala and Keith, 1995). It would be remiss of me to omit the public participation literature. Sarkissian and Perlgut (1994) offer an Australian example.

Action learning also fits well with action research. Current approaches to action learning as described by such writers as Marquardt (1999), Rothwell (1999) or Raelin (2000) bear a close resemblance to group-based participative action research. An action research group can also function beneficially as an action learning group (“learning set”). Although in earlier times action learning used a different style, current action learning mostly gathers participants from one organisation around a shared project, much as an action research study might do. Although action learning has been used mostly in

organisational settings, it also functions well in a variety of other situations.

Two other important issues concern participation. First, who decides the nature and extent of participation? You may be committed to involving participants as co-researchers and equals in an emancipatory relationship. But that may or may not be their desire. Sometimes you may have to settle for less or other than you wish, at least initially (cf. Grundy, 1983).

Second, your thesis or dissertation is expected to be an independent and original contribution to knowledge. You may therefore have misgivings about the heavy involvement of participants. You may fear it undermines the independence of your contribution. Zuber-Skerritt and Perry (1996) address this matter persuasively and helpfully in their paper “Action research within organizations and university thesis writing” in this issue. As these authors explain, the field study may be done with the style and level of participation that suits you and your participants. Your individual reflection upon that study then provides your own contribution.

So far in this paper we have considered the strategic issues; these do much to determine the overall shape of the study. However, a number of other choices facing the researcher are also worthy of note here. I begin by considering methods to operationalise the methodology.

### **Choice 6: which methods for data collection and analysis?**

Much of the literature on action research does not explain in detail how it might be done. But this need be of little concern to researchers considering action research. You can be vigilant in ensuring that your chosen methods are consistent with both your action and your research aims. With this protection, many of the methods used for other approaches can be pressed into service here.

The methods used most commonly for data collection are interviewing and focus groups. These are well covered in the literature, as the following examples demonstrate.

Glesne (1999) gives a readable account of both interviewing and rapport building (the latter an often-neglected topic). In his wide-ranging book, Kvale (1996) mostly treats the interview as conversation, but also addresses its philosophical and scientific context. Taylor

and Bogdan (1998) give considerable attention to interviewing in their general text on qualitative research.

Focus groups have been used most in market research, though their origins were in qualitative research. The market research literature can be useful for its attention to the practicalities. For instance, the work by Edmunds (1999) is practical despite its title. In recent times focus groups have been returned to their origins, and high quality accounts are appearing. Barbour and Kitzinger (1999) are a good example. For a practical account that also considers data analysis see Krueger and Casey (2000).

Focus groups and interviews do not usually involve strong participation. If your work involves strong participation you may well find other literatures more useful. Earlier I mentioned the literatures on organisation, community and rural development that could be useful for this approach.

Much of your time is likely to be spent with groups of people and here the literature on group facilitation is instructive. Heron (1999) is familiar with collaborative research methods and says much that is useful, as does Kaner (1996). There are also structured group processes such as group feedback analysis (Heller and Brown, 1995) that can be valuable in participatory research.

For making sense of the data you gather, Miles and Huberman (1994) provide some useful techniques with detailed and practical descriptions. The coding methods of grounded theory may also be useful: see Glaser (1998) and Strauss and Corbin (1997), though in my view the latter study overcodes its data.

As you make these choices about methods, it remains important to continue pressing for appropriate rigour in what you do. Researchers also need to recognise choice in the criteria they adopt for evaluating research, and in how they treat the very pertinent issue of the generalisability of their research results.

### **Choice 7: rigour or relevance?**

Fuelled by the development of new paradigms, there has been much debate over the criteria for judging research. Some believe that qualitative approaches and constructivist philosophies require their own assessment criteria, distinct from those that characterise quantitative research. Lincoln (1990) argues this vigorously. However, we cannot accept

these views without question. I have argued that the most important research choice is not qualitative versus quantitative approach, but that a theory-driven or data-driven approach is a more influential choice.

This brings us to acknowledge the existential position of action research. Action research is intended to act on some part of the world, however small or large. This presumes that the part of the world to be acted on is something more than a mental construction. What we know or think that we know of it may be a mental construction – and I assume it is. I assume also that our mental construction stands in some relationship to the world “out there” that exists as real or actual, rather than simply as a mental construct. It is the physical world, a palpably real or actual world, that we ultimately wish to influence. Cherry (1999) examines such issues as they apply to action research.

On the grounds explored above, it seems to me that reliability and validity are still useful concepts. For example, it is still my intention that as far as possible the information I collect is not idiosyncratic; that it is to some extent reliable. I attempt also to discover as accurately as I can the experience that my informant describes so it is to some extent valid. The greater the validity and reliability of the information and insight that I obtain, the greater my confidence when I draw on my understanding to take action.

Generalisability is a key issue. I agree with Baskerville and Lee (1999) that qualitative researchers have given up too easily on this issue. These authors recognise several forms of generalisability that are more accommodating than the stricter views upheld by most researchers. As a researcher I also see ways to extend the generalisability of case studies, believing as I do that most action research studies can be regarded as case studies.

The experimentalists have some grounds for claiming that their findings have at best the status of general laws. Suppose they find through their research that variable *A* consistently influences variable *B* in a certain way in extensive testing. The claim can then be made that all else being equal, variable *A* always influences variable *B* in that way. As far as it goes, this is a valid claim.

We could reply that this is less useful than might be imagined. Generalisability is not imbued with as much virtue as claimed. In the

situations we deal with, it is seldom that only variable *A* and variable *B* operate exclusively. The status of variable *B* is then indeterminate.

My own approach is to acknowledge that there is some trade-off involved between discovering general truths and being relevant to the local situation. My choice of “*action research*” or “*action research*” may tempt me to favour one or the other of these.

However, I can aim for a “best of both worlds” combination of them since there are grounds I can use to argue for the generalisability of my results. These grounds can be developed through logical analysis, multiple case studies, or highly diverse samples. I can also compare my interpretations to those in the relevant literature.

So far, we have talked about choices that influence the shape of the research as the researcher carries it out. However, except in an indirect manner, these considerations are not the basis on which examiners will assess your research. No matter how well you carry out the research, you will need to capture it well in your thesis or dissertation. This is what you will be examined on.

### **Choice 8: how will I write up my research project?**

Here, the choice you face is between a conventional thesis and a more tailored approach. Based on their training, many supervisors, committee members and examiners have a preconceived notion of thesis structure. It probably has chapters titled something like introduction, methods, results, discussion, and conclusion. This is the convention, and may be a safer way for postgraduate students to satisfy institutional requirements.

However, if you treat action research as data driven and responsive, your study may not fit this structure without some trimming. An alternative is to devise a structure for presentation that allows you to reflect the conduct and style of action research. To illustrate how you might do this, I refer here to two papers on a Web site at Southern Cross University that reflect these two strategies. One is by Perry (nd) offering suggestions for structuring a paper for submission so that it appears conventional. I have written the other paper (Dick, 1993), intending to highlight the particular virtues of action research. I describe a thesis structure that is organised around the

thesis’s contribution to knowledge, with less concern for being conventional in form. From feedback on this paper, I have reason to believe that postgraduate candidates have found these models instructive, some choosing one approach and some choosing the other.

So far in this paper I have considered most of the design choices that are important in approaching a thesis or dissertation. In the remainder of this paper I turn to the actual conduct of the study. I discuss some of the traps that await unwary candidates. I then discuss briefly an action learning set – a supportive group of colleagues – as an effective way to help overcome these traps.

### **Avoiding the traps of procrastination**

I hope it is clear from the preceding discussion that action research has distinct qualities that set it apart from most other approaches to research. If you take into your action research study some assumptions developed within other approaches, these may inhibit you from working most effectively in your chosen paradigm. In particular, I think there are four traps that can be described as forms of procrastination:

- (1) postponing data collection until you have read all the relevant literature;
- (2) postponing analysis until you have collected all the data;
- (3) postponing action (i.e. implementation of the intervention or development) until you have interpreted all the data; and
- (4) postponing writing until all other aspects of the research are complete.

Action research does not require extensive preparatory reading, extensive early data collection or complete analysis. It lends itself to early action. It does not even require that you have a research question or “thematic concern” to begin (Kemmis and McTaggart, 1988), though one may well be useful. It is enough to have a research situation. After you begin to take action you will soon begin to identify the thematic concerns.

Data-driven research provides an approach that suits activists, managers and other people who wish to act on the world and understand how they do so to maximise the effectiveness of their actions. Each turn of the action research spiral can contain data collection,

data analysis, action planning, action, and evaluation:

- data are interpreted as they are collected;
- interpretations are turned into action plans, which are then immediately acted on;
- the results of the action can be reviewed immediately; and
- though you will wish to revise later, you can capture on paper your conclusions as you develop them.

It is useful to read some of the methodological literature at the beginning of your research so that you can identify your research paradigm and approach. You do not want to find further into your research that your methodology was inadequate. The content literature can be left until later. The early imperative is to find a suitable research situation, and achieve early ethical approval (this latter topic deserves a paper of its own).

As I have said, each turn of the spiral tests your assumptions in action. Each turn gives you another opportunity to test your emerging interpretations by vigorously seeking counter evidence.

There is also a final trap. If you succeed this far you may then suffer the opposite of procrastination: allowing yourself to be distracted from the theory by the action. As I said earlier, action research can be appealing to those who wish to act on the world. But it can also tempt them to continue taking action, since when an action has been successful, this is incentive to press ahead to the next action. This move is a trap that distracts the researcher from returning to other essential stages in the research process.

Regular, systematic and critical reflection forces the action researcher to avert this final trap. It enables you to develop the understanding that accrues to become your contribution to knowledge and, directly or indirectly, to action. It is also where you develop the understanding to improve your work practice and your work situation or address effectively your thematic concern. This is why regular, systematic and critical reflection is an essential, iterative part of action research.

Continuously documenting, carefully but economically, helps as well. You can also give more attention to the planning phase of each turn of the spiral. During planning you can

become conscious of your assumptions (about epistemology, methodology, the situation, and action). And having made these assumptions explicit, you are then more likely to notice the evidence that allows you to refine them.

The thesis or dissertation is an individual contribution. Nevertheless, you do not have to do the study or the written report in isolation.

### Creating a support network

As I mentioned above, an action research study may draw on action learning methods to engage participants in the research and action. Action research and action learning have grown together despite their different origins and early history.

In addition, you may use the processes of action learning to organise a support group. You can meet regularly with other higher degree candidates in an action learning set. There you can provide each other with mutual challenge and mutual support. You can thus overcome the loneliness and isolation that afflicts many postgraduates. You and your colleagues can help each other to be more effective and more satisfied in your thesis work. You will learn much from each other.

This can be particularly valuable if you are doing your higher degree research by distance education. Davies *et al.* (2000) have described an approach where regular but infrequent meetings with supervisors are supplemented with regular and frequent learning set meetings.

### Summary

Are you planning to do a higher degree by research? If so, action research may be a choice open to you. In this paper I have explored a number of choices that you may find useful to guide you through the design:

- (1) Will your study be theory driven or data driven: will you take the literature or the research situation as your starting point?
- (2) Will you engage with the research primarily as technician or as performing artist: will you closely follow a recipe, or design and conduct your study to fit the situation and the theme?

- (3) Will this be “action *research*” or “*action research*”: how action oriented will your study be?
- (4) Which of the many available methodologies will you use?
- (5) Who will you involve as participants in the study, and how, and to what extent?
- (6) What methods for data collection and analysis will you use to operationalise your methodology?
- (7) Facing a trade-off between rigour and relevance, what will you do?
- (8) Will you structure your thesis or dissertation conventionally, or will you design a structure that makes the most of your chosen methodology?

I have also identified some traps that most higher degree candidates face. I have offered ways to avoid those traps, including forming a group of colleagues to act as an action learning set.

I hope that prospective research degree candidates will find this discussion useful, not just for understanding action research, but for making well informed choices in their research program, whatever approach they find most appropriate for conducting the study they choose.

## Notes

- 1 I use the term “thesis” for higher degrees by research only, and “dissertation” for higher degrees by coursework, including a research project.
- 2 For simplicity I use feminine pronouns to stand for feminine and masculine, unless the context dictates otherwise.
- 3 With supervisors who included Alan Davies, Ortrun Zuber-Skerritt and Bob Macadam.

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# Action research within organisations and university thesis writing

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## Keywords

Action research, Organizational learning

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## Abstract

This paper argues that action research is more appropriate than traditional research for improving practice, and professional and organisational learning. Our particular aim is to help postgraduates in the social and human sciences to understand and clarify the difference between core action research and thesis action research; that is, between collaborative, participatory action research in the field (aimed at practical improvement in a learning organisation) and independent action research in preparing the thesis (aimed at making an original contribution to knowledge). We present a model to illustrate the distinction and relationship between thesis research, core research and thesis writing.

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## Introduction

Many students in the social and human sciences, especially part-time students in full-time employment, choose action research. This is because they find it is more relevant than other research approaches to both their work and their organisation. They can collaboratively solve a real-life, significant problem in their workplace and so assist in their organisation's learning, and also use this fieldwork for their own thesis or dissertation. However, most students find it difficult to distinguish between the collaborative project work with their colleagues, and their thesis work which has to constitute their individual, original contribution to knowledge in the field.

In this paper we demonstrate how action research may be applied effectively to theses in the social sciences. After distinguishing action research from traditional research and establishing that the former is more appropriate than the latter for developing professional competencies and organisational learning, we discuss issues in conducting action research within a social sciences research program. These issues centre on the key concept of distinguishing between a core action research project (that is, field work in an organisation) and a thesis action research project. We argue that the core action research project can be integrated into the research candidates' full-time work and into their thesis. We also point to distinctions between action research projects at Masters and PhD levels.

## Definitions and boundaries

This paper deliberately focuses on students who are required to produce research theses in Masters and PhD degree programs within social and human sciences departments, including graduate schools of management, of accredited universities. This research is what we refer to as "social sciences action research". We do not claim the general applicability of this research to other academic fields, nor do we include in this research category the minor research projects and assignments carried out in undergraduate and Masters-by-coursework degree programs. By limiting our discussion to research Masters and PhD degrees we narrow our focus to theses that must demonstrate some mastery of research processes and procedures, and also



make a distinct original contribution to knowledge. Since the non-thesis research report format does not need to meet these requirements, we exclude it from the term “social sciences action research”.

To date there is no agreed single definition of, or clear distinction between, the complex concepts of organisational learning and the learning organisation (LO), as the recent literature reviews by Grieves (2000), Örtenblad (2001) and Stewart (2001) have shown. In this paper, we simply define organisational learning as a process of collaborative action learning and action research in an organisation with the aims of solving complex problems and achieving change and improved performance at the individual, team and organisational levels. We define the learning organisation as an ideal form of organisation that is defined by Senge’s (1990) five disciplines: personal mastery, mental models, shared vision, team learning and systems thinking. Systems thinking means that all members of the organisation understand the whole, rather than only the fractional parts of the organisation’s structure, processes and culture. It also means that collaboration and team learning are essential and more effective, because of the resulting synergy that is “the value that comes when the whole adds up to more than the sum of its parts” (Kanter, 1990, p. 58).

### **Purpose and structure**

This paper has four purposes:

- (1) to establish the relevance of action research to human and organisational learning;
- (2) to outline characteristics of an action research program in the social sciences;
- (3) to identify the key managerial attributes and competencies required by industry; and
- (4) to distinguish between the collaborative project work in the workplace and the individual thesis work that must be the candidate’s own contribution to the field.

Hence, the paper is structured into four sections around these four purposes. First, we discuss the relevance of graduate research to professional and organisational learning. Second, we define action research and compare it to traditional research. Third, we review the attributes and competencies

required in professional and organisational practice and establish the relevance of action research to those competencies. Finally, we propose a model for writing an action research thesis in social sciences programs at the Master’s and PhD levels.

### **The relevance of graduate research to professional and organisational learning**

How can graduate research be made more relevant to professional and organisational learning? That it needs to be made more relevant has been evident for some years. About 30 years ago Revans (1971) published his book *Developing Effective Managers: A New Approach to Business Education*, which at that time was seen as a “radical new approach to the field of management education” (cover of the book). In it Revans criticised business education for fostering an artificial distinction between theory and practice, for becoming more and more distant from the realities of the business world, and for proliferating irrelevant academic information. Instead he advocated a system and structure of action research whereby manager-students spend one year in business firms, conducting action research studies. Five examples of such action research projects are included in the last chapter of this book.

More recently, there have been other criticisms of the relevance of much university research. For example, Porter and McKibbin (1988, p. 174) pointed out in their study of management education and development that much management and organisational research is written for an academic audience only. Porter and McKibbin (1988, p. 170) surveyed some 200 senior US executives who were among those most interested in, and knowledgeable about, business schools and business-school education. They found that the executives held a scathing view of the direct effect of academic research on management and organisational practice:

... as far as we could tell, many key managers and executives pay little or no attention to such research or its findings. *The direct impact appears nil* ... not a single [executive] who was interviewed cited the research of business schools as either their most important strength or their major weakness. *The business world is, generally speaking [and omitting a few very specific exceptions such as certain areas of corporate finance], ignoring the research coming*

from business schools. The total perceived impact is, judged by what we learned in some 200 interviews in the business sector, *virtually nil* (emphasis added).

So much for the direct effect of social sciences research upon management and organisational practice. Indeed, a great deal of social sciences research does not have even indirect effect on management and organisational practice through graduates trained by the academics who do the research. These graduates often work as managers or as consultants but do not use in their workplace their knowledge of social sciences research they have been taught at university. Porter and McKibbin (1988, p. 180) conclude:

... some of the knowledge of newly-hired managerial employees, especially recent business school graduates, may have been directly affected by the research of faculty members, but that link is not obvious to superior or senior colleagues. Similarly, consultants hired by a company may themselves be quite up-to-date on contemporary research findings ... yet the bases of some of their approaches to business problems are not identified as originating from research carried out in the business schools.

An even more recent study came to somewhat similar conclusions. According to the Karpin Report on the situation in Australia (Karpin, 1995), much of the traditional research in graduate schools of management continues to be irrelevant to management practice. For example, researchers in Karpin (1995, p. 224) surveyed managers to compare formal management education with learning from work relationships and learning from formal management training, for ten management development purposes, including “makes me a better manager”, “keeps me up-to-date”, and “builds my confidence”. The survey found formal management education was recorded at the bottom of the list for every purpose except one: “improves my promotion prospects”. This is why leaders in industry and business have started to turn to alternatives such as programs offered by private providers of management education and development, or developing their own programs in “corporate universities” (Realin, 2000).

In brief, the research usually done in universities that grant PhD and masters awards has little relevance to the managers involved in organisational learning programs. How can research that is relevant to organisational learning be combined with

what actually goes on within an organisation? We provide one answer to that question in the next section.

## Action research

Essentially, we argue that action research is one way of conducting research within a learning organisation that can benefit both the organisation and the body of knowledge about which a thesis is written. Before discussing action research, we need to clarify what we mean by this term. We refer to the working definition of action research in the paper by Altrichter *et al.* in issue 3 (pp. 125–31) and emphasise three key aspects of action research:

- (1) a group of people at work together;
- (2) involved in the cycle of planning, acting, observing and reflecting on their work more deliberately and systematically than usual; and
- (2) producing a public report of that experience (such as a thesis).

It is important to note that this definition of action research distinguishes action research from action learning in that action research necessarily focuses on a workgroup within an organisation or community, all of whom are involved in the cycle of planning/acting/observing/reflecting. In contrast, action learning emphasises individual learning. Admittedly, the set of associates or “comrades in adversity” (Revans, 1982) in action learning is a group, but each individual within that group learns from separate experiences that do not necessarily involve other associates, and the separate experiences may not even involve workgroups. Action research involves action learning, but not vice versa, because action research is more deliberate, systematic, critical, emancipatory and rigorous. Thus action research is more relevant to the organisational learning concerns addressed in this paper.

Traditional research can now be differentiated from action research. The two have different paradigms. According to Bawden (1991, p. 32):

We can talk of the systematic methods of experimental, positivist, reductionistic, deterministic *natural science*. We can refer to the methods of post-positivist, empirical, constructivist, interpretative *social science* (emphasis added).

In the dominant paradigms of traditional research, a “hard” boundary separates the researcher from the system s/he is researching. The system is reduced to one or only a few parts, with the rest of the system assumed to be constant. This approach to research is appropriate in some circumstances, especially in the natural sciences – for example, research into the effect of fertiliser on a plant.

On the other hand, action research recognises and involves social systems of which the researcher is unavoidably a part. These are “soft” systems without clearly defined boundaries between the researcher and the system. The researcher actively participates with others in the critical exploration of complex and dynamic issues, which relate to the relationships between people and their physical and socio-cultural environments (Bawden, 1991, p. 40). Because the research involves complex and dynamic problems, exploring the social process of learning about situations is inextricably linked with the acts of changing those situations. For example, one of our postgraduate degree candidates considered conducting a survey to research how franchise planning is done; this would have been traditional research with most parts of the system hopefully held constant. After considering possibilities, he decided to use action research because he was able to be a member of a management group within an organisation. In this capacity he could study how franchise planning was done through the group’s use of a spiral of cycles of planning, implementing the plan, observing and reflecting upon the results with regard to, and for the purpose of, the organisation’s franchise plans. Thus traditional research is appropriate for clearly defined hard systems, while action research is appropriate for the soft systems of management and organisational learning.

In brief, traditional and action research both have roles to play in social science research, and action research may use the results of traditional research. Nevertheless, when social science research extends further into the practices of workgroups, the scope for action research should increase.

### **Professional competencies within an organisation**

In the previous section, action research was described as enquiry by workgroups involved

in professional and organisational learning. This section establishes that action research is more appropriate than traditional research for developing professional competencies within an organisation.

What do professionals do? If they simply needed the ability to think clearly, then the conceptual and analytical skills developed in conventional research programs could conceivably be useful for this task. For example, if only conceptual and analytical skills were required of managers, then research in engineering or the liberal arts may be as useful to managers as management research. However, management within an organisation requires far more than conceptual and analytical skills, as several studies have shown.

For example, in the mid-1990s, the Industry Task Force on Leadership and Management Skills, funded by the Australian Government, conducted and commissioned major studies published under the title *Enterprising Nation: Renewing Australia’s Managers to Meet the Challenges of the Asia-Pacific Century*. These studies involved wide consultations overseas and within Australia. Known as the Karpin Report (Karpin, 1995) and referred to above, it was presented in all states and territories across Australia in 1995 and 1996. It was welcomed by industry and business, but heavily criticised by most graduate schools of management in universities.

One of the main recommendations in the Karpin Report relates to the reform of management education and is directly related to the aim of this paper. It recommended more work-based education to be done in a way that is reminiscent of Revans’ (1971) action research-based education noted above (though Revans’ work was not mentioned in the Report):

- shorter programs (less time away from the organisation);
- development programs more focussed on an individual company’s needs (customisation);
- development programs more closely linked to the workplace rather than the classroom (experiential);
- a project-based approach to learning.

These types of programs emphasise the soft skills that are required of managers in a learning organisation (Smith, 1999).

However, these soft skills are not easy to master (Karpin, 1995, p. 25):

In a capabilities-based organisation, a senior manager will require an additional range of “soft” skills . . . involved in motivating staff, creating co-operation, redefining organisational values and beliefs, and re-aligning management focus. These skills will place a premium on the leadership qualities of a senior manager.

It is these soft skills that action research fosters in its collaborative, democratic processes that aim at improving work practice. Clearly, action research programs can put into practice all four of the above mentioned Karpin Report recommendations. They can also enhance the attributes of the “ideal” manager identified in the report: vision; strategic thinking and planning; teamwork; flexibility; people skills; commitment to “learning to learn” and self-management.

In brief, traditional research has limited relevance and utility for professional and organisational learning. On the other hand, action research not only investigates and improves professional practice, it also develops the management competencies of the researchers involved by developing additional, workgroup-specific skills that enhance organisational learning.

### **An approach to action research in social sciences theses**

Because action research develops human, social and professional competencies more than traditional research, here we will address the question of how action research can be incorporated into a social sciences research program to the candidate’s advantage. That is, an action research project may enhance learning within an organisation, but how can it also make a contribution to a body of knowledge that interests a university? A student faces two goals or “imperatives” (McKay and Marshall, 2001, p. 46). One goal is to solve a practical problem within an organisation, and the second is to generate new knowledge and understanding. How to address both these goals has rarely been addressed in the literature (Perry and Zuber-Skerritt, 1994; Carson *et al.*, 2001) and there is “little direct guidance on ‘how to do’ it” (McKay and Marshall, 2001 p. 49). In the next section, we provide this guidance about

how to handle the two goals of action research, by reflecting on our experiences of working with Masters and PhD candidates involved in action research. The section is based on our earlier work (Perry and Zuber-Skerritt, 1992, 1994).

### **Core and thesis action research projects**

Our key concept in a social sciences action research program is the identification of two distinct types of action research projects. The first of these is the core action research project involving the candidate within a workgroup of practitioners in an organisation. The report of this project will therefore be like most action research reports, that is, written in the first person plural, in narrative form and making comparisons of the situation before and after each cycle of planning/acting/observing/reflecting (see Figure 1).

In addition to the core action research project, the thesis action research project involves the candidate in a “workgroup” of thesis candidates/action researchers. In contrast to the core action research project, this thesis action research project concerns a workgroup akin to an action learning “set of associates” and is supported by workshops with fellow candidates and their supervisors aiming at fulfilling the conventional requirements of theses. As demonstrated in Zuber-Skerritt and Knight (1991), workshops like these are supplementary to the single-supervisor model and have proved to be an effective method of doing graduate research. In these workshops the research processes are treated as similar to, but distinct from, the processes of the core action research project in the candidate’s field work.

In the thesis action research project, supervisors are simply members of the workgroup who work as co-researchers on issues of theory and methodology. That is, as Kemmis (1991) argues, supervisors should not only be advisors or facilitators, but should consider themselves to be co-workers on the action research project. However, our Masters and PhD candidates also recognise that they are primarily responsible for the thesis itself, albeit working within the presentation and academic guidelines supplied by the supervisor/university.

This distinction between two action research projects makes research planning by candidates much easier. For instance, one candidate wished to investigate cultural

Figure 1 Relationships between core and action research projects



Source: Adapted from Perry and Zuber-Skerritt (1992)

change. However, his core action research project involved the senior management group of a large organisation for whom his concern with cultural change was a minor issue compared to the organisation's concern with strategic planning. This conflict was only overcome when the existence of two distinct action research projects was acknowledged; the core project's "thematic concern" (Kemmis and McTaggart, 1988) was strategic planning; and the thesis project's "research problem" (Zuber-Skerritt and Knight, 1991) was cultural change. That is, the core project's thematic concern referred to the situation and processes of management practice; in contrast, the thesis project's research problem addressed intellectual propositional knowledge about organisational culture and learning.

The linkages and distinction between core and thesis action research projects are summarised in Figure 1. This relationship between core and thesis action research can also be shown diagrammatically in the usual spiral of action research cycles (see Figure 2). As a rule of thumb, the duration of the core action research project should be no more than one-third of the candidature, with the

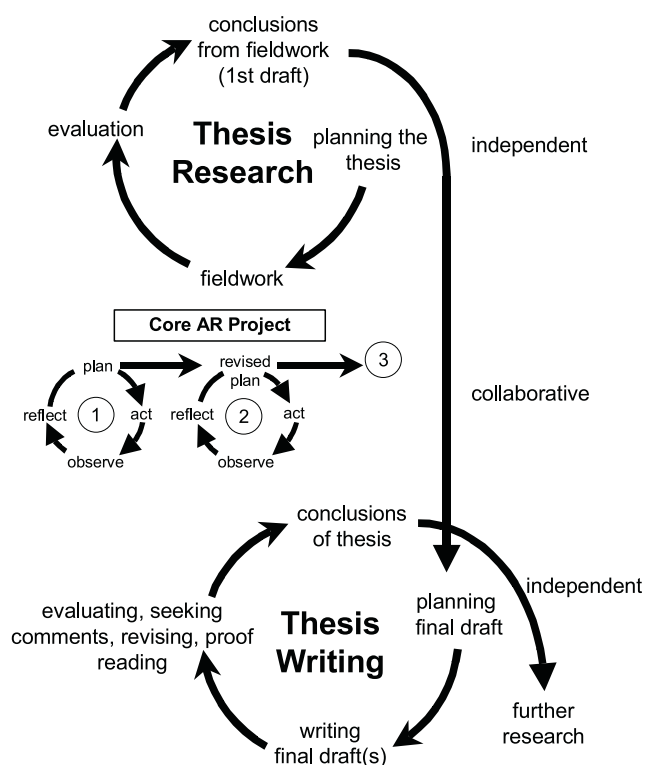
rest of the time spent on the thesis project. For example, a three-year PhD program should aim to include cycles of planning/acting/observing/reflecting on management practices for no more than one year.

### Differences between Masters and PhD theses

In traditional research, one distinction between Masters and PhD theses is that the latter should make a more distinctive, original contribution to knowledge than the former. In action research, there are two additional characteristics of the hierarchy in Masters and PhD action research programs.

A Masters core action research project needs only to progress through one major (or several minor) planning/acting/observing/reflecting cycle of professional practice to demonstrate mastery of the research methodology. In contrast, a PhD core action research project would probably need to progress through at least two or three major cycles to make a distinctive contribution to knowledge. Although these two or three cycles do not have to involve the same workgroup, the understanding gained by one workgroup in the reflection phase of the first

**Figure 2** The relationship between thesis research, core action research and thesis writing



Source: Perry and Zuber-Skerritt (1992, p. 204)

cycle should be transferred to the next workgroup for their planning phase, that is, for the second cycle in the spiral. For example, Zuber-Skerritt (1992, p. 17) transferred reflections from a group of academics teaching undergraduate students to a group of supervisors of Masters students, and then transferred their reflections to a group of teachers of Honours students.

A second difference between Masters and PhD research programs lies in distinguishing between technical, practical and emancipatory action research. Table I outlines these differences.

Carr and Kemmis (1986, p. 7) comment that only emancipatory action research is real action research:

Indeed only emancipatory action research can unequivocally fulfill the minimal requirements for action research . . . having strategic action as its subject matter; proceeding through the spiral of planning, acting, observing, and reflecting; involving the participation and collaboration in all phases of the research activity.

In terms of our earlier working definition of action research, the system boundaries of technical and practical action research are hard, and only emancipatory action research

exercises all the professional and organisational competencies identified above. In other words, it can be more closely related to organisational learning. Thus we maintain that usually a Masters thesis may constitute either practical or emancipatory action research, but a PhD thesis must be emancipatory action research.

These conditions generally require that candidates enrolled in an action research PhD be in full-time employment and part-time students, because they will be involved during work time in the core action research project. In other words, a full-time student without a job could not easily be an action research candidate, although exceptions could be where full-time students are committed to a project that could serve the same purposes for action research as a paid job. In turn, one could argue that in the last phase of candidature (that is, thesis writing) candidates may take leave from their job and engage in full-time research and writing.

However, this interpretation would not be accepted by all authorities. For example, one might argue against the view that all members of the workgroup should be people within the organisation system. As long as the external action researcher and the internal clients share and complement each other's experiences, skills and competencies to achieve problem solving, knowledge expansion and learning, and the success of the project is sufficiently desirable to all parties involved, then an action researcher can be a part-time/external member of the workgroup. These requirements for emancipatory action research would include process consultancies of practical and emancipatory research, despite the differences in hardness and softness of the system boundaries involved.

## Conclusions

This paper has addressed some of the core problems of integrating action research into social sciences research programs. We have argued that action research is an appropriate and effective method for conducting research that is relevant to professional practice and organisational learning, and for developing the candidate's managerial "soft" skills, competencies and other attributes required by managers and leaders within learning organisations in the twenty-first century. We

**Table I** Types of action research and their main characteristics

Type of action research	Aims	Facilitator's role	Relationship between facilitator and participants
1. <b>Technical</b>	Effectiveness/efficiency of professional practice Professional development	Outside "expert"	Co-option (of practitioners who depend on facilitator)
2. <b>Practical</b>	As (1) above Practitioner's understanding Transformation of their consciousness	Socratic role, encouraging participation and self-reflection	Co-operation (process-consultancy)
3. <b>Emancipatory</b>	As (2) above Participants' emancipation from the dictates of tradition, self-deception, coercion Their critique of bureaucratic systematisation Transformation of the organisation and of its system	Process moderator (responsibility shared equally by participants)	Collaboration (symmetrical communication)

Source: Carr and Kemmis (1986)

have explained the meaning of action research and argued why this research approach is more appropriate than traditional research for developing managerial and organisational learning. Finally, we have distinguished between core and thesis action research, and suggested a qualitative difference between Masters and PhD candidatures in terms of both the type of action research (practical and emancipatory), and the scope (number of cycles) of action research required for each category of candidature.

It demands much of us and our candidates to integrate action research into social sciences research programs. The appropriate literature appears to ignore the complexity of presenting action research in the format required for a Masters or PhD thesis. Therefore this paper may provide a foundation for candidates trying to integrate theory and practice, research and development. We have been spurred on by the irrelevance of traditional research and the usefulness of action research to practical improvement, understanding and knowledge creation in the field of professional and organisation learning.

Some very significant issues still confront us. For example, the conflict between emancipatory action research and the bureaucracy of a business organisation may be greater than that faced in emancipatory action research within a classroom or among

teachers. Indeed, we recommend that it is essential for action researchers to gain moral and written support from the organisation's chief executive to conduct an action research project on its premises, even though the chief executive might not be a member of the workgroup.

Moreover, because the "political" forces of a business bureaucracy probably outweigh the "professional" culture of teaching within a classroom, dealing with emotive aspects of groupwork may lead to more than the usual bias by participants concerned with making their points. And extracting suitable theoretical propositions and models for the thesis project from the experience of the core action research project may be more difficult than expected. Nevertheless, because action research is now instrumental in social sciences theses and is gaining recognition accordingly, we have a strong imperative to continue addressing these issues that confront us and to practice vigilantly what we preach.

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# Reflective Internet searching: an action research model

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## Keywords

Internet, Action research

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## Abstract

Sources of information and other opportunities available via the Internet are increasing exponentially. This comes with the steady increase in Internet use for education, marketing and commercial trading, and in government for communication of information to citizens. Using the action research cycle of planning, acting, recording and reflecting, this article introduces a model for an approach to Internet searching and use. The model is a conceptual framework for Internet searching that will help people to overcome the challenges of working within an environment that is subject to continuous change, both in the forms of technology used and in the content that is available through the Internet. Our model encourages the searcher to use action research principles to enlighten their searching, reflecting and learning about new techniques as the tools that they use change around them. Our model should prove valuable to educators, researchers and consultants to inform their own practice as well as for use in the educational environment.

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## Introduction

The Internet is an increasingly popular and useful (but also for some, increasingly confounding) electronic medium. As a worldwide network of interlinked computer networks, it enables us to communicate, and to access or provide information wherever an Internet connection is available, which is almost on a global basis. Unlike many other information sources it is relatively unstructured; indeed it is often described as “chaotic”. The Internet, in its earliest form, was a product of the US Department of Defence in the early 1970s. Today many people think of the Internet primarily in terms of two of its key elements, the electronic mail facility e-mail and the World Wide Web. While we recognise that in the poorest countries there are still many people who have neither access to or knowledge of the Internet, the Internet is already institutionalised in the lives of many and this trend appears set to continue.

Thus, for learning organisations in most parts of the world, effectiveness of the Internet is no longer a luxury but an imperative. Internet use is steadily increasing in the education sector for teaching and learning, in the commercial sector for marketing and commercial trading, and in government for communication of information to citizens. Researchers around the world use the Internet on a daily basis for seeking out the work of others, communicating with colleagues and making their own work available to the community at large. Educational material is made available electronically to students and interactive learning opportunities are presented. In their everyday life, people who have access to the Internet are confronted with growing opportunities to communicate electronically – to shop, bank, trade, read the newspaper, and pursue diverse interests that are important to them in areas such as health, the law and the money market. Ever more people are aware that the sources of information and other opportunities available via the Internet are increasing exponentially. This presents a potential problem: with so much information and opportunity available electronically, how do Internet users use the Internet most effectively for their purposes – for searching and for selecting from the massive amounts of material to which the Internet gives access?



This article introduces an approach to Internet searching and use that is based on the action research cycle of planning, acting, recording and reflecting. The model is a conceptual framework for Internet searching that will help people to overcome the challenges of working within an environment that is subject to continuous change, both in the forms of technology that users need and in the content that is available to them. We offer this model to all Internet users, though we recognise particular utility for the action research community, with the expectation that it will have some value for consultants, educators and researchers in their own practice and will facilitate development of their clientele.

### Information and technology literacy for the twenty-first century

In proposing an action research model for searching the Internet, we seek to contribute not only to people's use of the Internet, but at a broader level to the information and technology literacy of those who use it. Why do we believe that this is important?

While the information technology revolution continues, we are simultaneously confronting the inevitable development of the digital divide. Many communities and individuals do not have access to Internet technology, and some who do have access to this technology do not always have the skills or desire to maximise its use.

We cannot provide access to technology for those who do not have it. But we can empower communities of learners who have some access through information and technology literacy. Information technology literacy is the ability to work with equipment and software at a technical level. Information literacy is the ability to make effective use of information made available through technology and other sources (Bruce, 1997; Bruce and Candy, 2000). The Global Knowledge Partnership is one organisation that has identified information literacy as a key to empowerment and learning in the knowledge society. The Partnership's work is:

... rooted in the conviction that access to and effective use of knowledge and information are increasingly important factors in sustainable economic and social development for individuals, communities and nations (Global Knowledge Partnership, 2000).

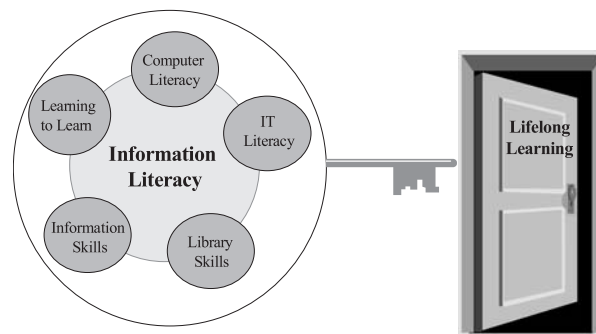
In the education sector it is axiomatic that the ability to access, evaluate and use information is critical for successful learning, and a key to the development of self-directed lifelong learners. In Figures 1 and 2, Denis Ralph, Director of the Centre for Lifelong Learning in Adelaide, has portrayed graphically the relationship between information literacy and lifelong learning.

At a practical level, so much information is available today via the Internet. This makes being able to use the Internet, independently or via an intermediary, a critical element of information literacy. We must remember, however, that it is not primarily technical skills that make effective Internet users, but rather the reflective and conceptual capabilities that are part of the character of the information literate.

### Developing the action research model

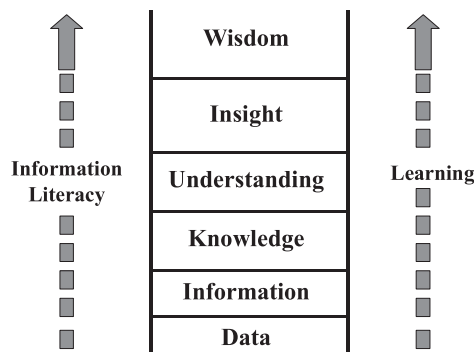
People who have access to the Internet often find that using it is a continual challenge because it is not a static technology. Learning

Figure 1 The key to lifelong learning



Source: Ralph (1999), adapted from Bruce model (1997)

Figure 2 Information literacy and learning



Source: Adapted from Ralph (1999)

to search the Internet is a prime example of learning in a changing environment, in this case a changing technological environment. It is particularly important that information users have the opportunity to critically assess the role of the Internet. They need to consider where it may be important to use this technology, and where other information sources may be more appropriate. This need to convey the importance of a critical, reflective approach to Internet use formed the early motivation to seek a new framework for teaching, learning and using the Internet. We needed to create a conceptual model to facilitate its most effective use.

In trying to establish an effective strategy to teach Internet searching to action researchers, we confronted a major hurdle. Although Internet instruction is a considerable industry, and much immediate help is available to the savvy user [1], few conceptual frameworks are available for learning how to use the Internet. Chau's (1997) systematic information retrieval/organisation (SIRO) model, for example, suggests a process of conceptualising information flow between organisations. Her model is likely to appeal to the sophisticated information user.

We believe that the skills-based approach to teaching and learning the Internet lacks didactic power because of the changing nature of both technology and Internet content. We needed something to emphasise reflective competence (Barnett, 1994), and the ability to continue to learn in the face of change because critical concepts are understood (Bowden and Marton, 1998), rather than skills-based competence. We needed to be able to provide users with capabilities that would provide a foundation enabling them to move forward into an unknown future (Bowden and Marton, 1998). We needed a model that would suit the neophyte as well as the more experienced information and technology user.

This situation suggested the need to develop a construct that would emphasise both processes and ways of thinking about or experiencing electronic media, rather than specific skills or discipline knowledge that are likely to have a short shelf-life. Such processes would have to be relatively timeless, and would have to reflect closely people's natural ways of working. In other words, people should be able to relate easily to the model. These criteria pointed us towards adapting an

existing model for literature review to the Internet context.

Action research models have already proven useful in helping people to come to terms with the world of information and information technology. The "reflective model for reviewing the literature" (Bruce, 1996) was created to help postgraduate students interact with their information environment specifically for literature reviews. That model uses the action research process (derived from Kemmis and McTaggart, 1988; Zuber-Skeritt, 1992) as a conceptual framework for the literature review experience. We found that as Bruce's earlier model was embedded in the action research process, and was designed to facilitate a reflective approach to information and information technology, it was easily adapted to the new context.

The remainder of this article proposes and explains the reflective model for Internet searching that we have prepared in the light of the discussion above. The model is not intended to supply all knowledge necessary for a user to become an experienced Internet searcher, but it will provide ways of proceeding that will help the user along the learning path. The experiences gained will be part of the individual's own life context.

### **The action research model for reflective Internet searching**

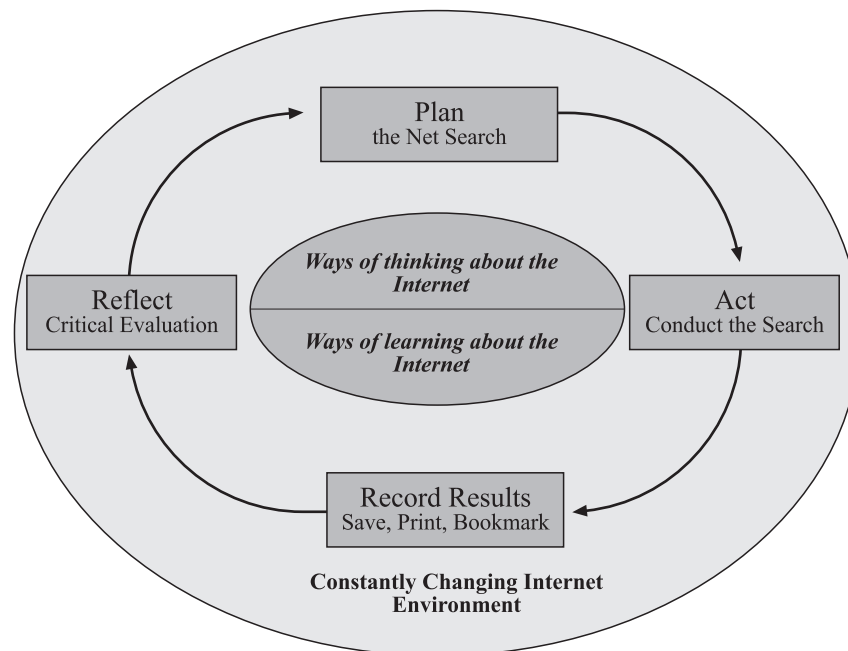
We have adapted the model in Figure 3 from an existing model of reflective practice when searching for information (Bruce, 1992), which itself was based on reflective practice principles (Schön, 1987) and action research (Kemmis and McTaggart, 1988). In this section we discuss briefly each element of the model, to assist those who want to use it. In the following section each of these steps will be explained in more detail.

#### **Planning**

It is important to remember that first attempts to search for information on the Internet will usually not be successful immediately. Most first-time searchers of the Internet find either too few or too many results for their initial search requests.

With this in mind, most people will find it useful to prepare a search strategy. Just as a search strategy is important when searching library databases, the same approach is

Figure 3 An action research model for reflective Internet searching



necessary when searching the Internet. In general, the searcher should carefully plan their search. They should attempt to consider carefully what are the major topics of their information needs, and then plan how to use each of these topics as steps that might be useful in the search they are about to undertake. We will discuss this stage in more detail later in this paper.

Evidence to date suggests that the majority of searchers choose search engines or search engines combined with subject directories (Yahoo, etc.) to undertake their searching, and we discuss these in a later section. Having planned the search and decided on where to search for the information required, the next stage is to act upon the plan.

### Act

During this stage of the searching process the Internet searcher must attempt to remain focussed on the process in hand; it is very easy to be distracted on the Internet. The search results often contain irrelevant information as the search often yields a high recall of results but a low level of relevancy to the final information that a user needs. This low relevance, together with copious links to other necessary resources, easily distracts searchers from their search task.

### Record

This is one of the most important elements. Searchers should ensure they record their

search process and keep results of their search for later use. Logging the search process when using graphical browsers like Netscape needs to be done manually. Searchers may record their search results by: using the save features of their Internet browser to view from a saved disk file the Web site results found; printing the results for later reference (useful since Web sites can close down to our later dismay!); or making use of the “bookmark” or “favourites” features of their Internet browser. Bookmark features allow us to permanently store the name and location of the Web sites.

### Reflect

This stage is also a critical phase in the searching process. The searcher can display the final results of the search to consider them in greater detail. Here the searcher must decide whether these results truly reflect possible solutions to their information needs, or whether s/he needs to refine the search further. If the results appear to meet the searcher’s needs, the searcher ends the Internet search and begins to evaluate results. From here the searcher needs to approach the materials found by assessing the production of this information or “knowledge” with the critical approach to evaluating/critiquing materials that a diligent researcher would apply to any materials discovered. This includes noting the date of the resource

found, and considering carefully for bias, credibility and reliability.

At this point the searcher can cease work at the Internet if they recognise the results to be reliable and able to meet their information needs. If the findings do not satisfy both criteria, the searcher must go back and refine their search, starting again at the planning stage of the cycle. It is useful here to consider each of these stages in more detail.

### Unpacking the model

We will consider here each step in more detail and outline how the changing environment impacts on this model.

#### Planning a search strategy

As with any action research planning, searching is the most important step. The search plan model in Figure 4 (adapted from Bruce, 1992) suggests ways of approaching the planning stage.

This is a dynamic model in that each step should be considered and adjusted continually while planning.

##### Step one

The first step in planning is to step back and analyse the problem for which you are seeking information. To prepare for your Internet search this stage should include asking yourself questions like:

- Is the information I require likely to be current or retrospective information?

- Who are the key authors and organisations working on or related to the topic?
- Which geographical regions are most important to my topic?
- What type of information should I look for on the Internet, recognising as my other potential sources the printed, audio and other materials available from libraries, etc., and that I may also need to create my own empirical findings through interviews, surveys and other first-hand sources.

It is important to consider that most information on the Internet is likely to be recent information. However, the information may often not be updated. Furthermore, older materials will be available on the Internet only if their copyright period has expired. For example, to digitise and capture a complete book of older material is a reasonably expensive process. The relatively young “age” of the Internet therefore means that older materials that may be required by those seeking retrospective information are unlikely to be included on the Internet. In the latter case, the information is most likely to be found in the traditional library or archive. Here you are basically asking whether you should be using the Internet at all.

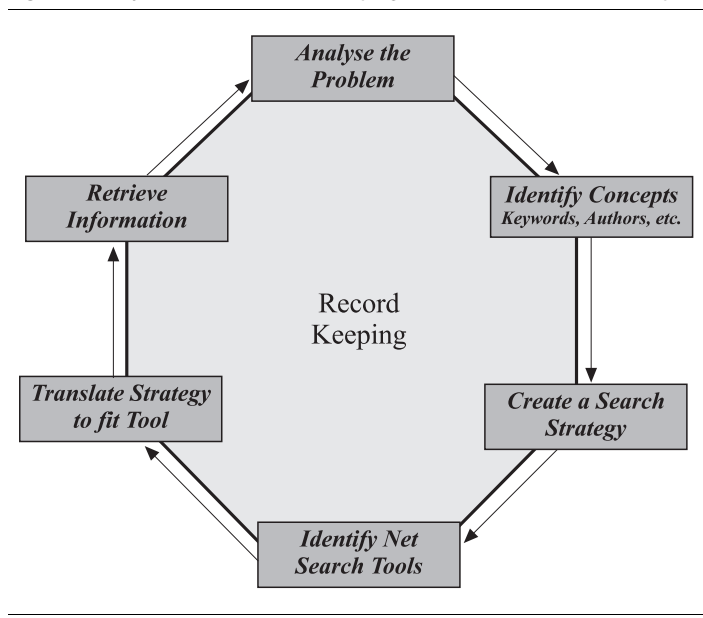
##### Step two

Having decided to attempt to search your topic on the Internet, the next step is to associate your problem or topic through keywords, key authors, or key organisations. Ask yourself the following questions:

- What keywords may be used to describe or associate with your topic?
- Who are the key authors writing in this field?
- What are the key organisations related to the topic?
- Which geographical regions are most important to your topic?

That is, consider what are likely to be the main words used to describe your problem. You must remember that the Internet is a multi-cultural environment, so there may be many ways of expressing your information. Think of synonyms for your keywords and variations in spelling. Try to identify key authorities like research centres or authors writing in this field, as these also may be useful ways to search the Internet for further information needs. With Internet searching,

Figure 4 A dynamic model for developing a reflective Internet search plan



names of authors and organisations sometimes yield more valuable sources than do keywords.

*Step three*

This is the time to combine keywords and names of authors or authorities into a search strategy. During this process you need to explore ways of combining search terms into coherent search statements or strings. For the Internet the keywords usually need to be expressed in one string, as there are usually no option to combine terms from one search with another set of terms. Authors and organisations are searched separately.

When searching for keywords the single combined string can be expressed in a mathematical equation using Boolean logic (see Figure 5). You can combine search terms with the words “and”, “or”, or “not”. If you think about this like a mathematical equation, the “or” is like a plus sign, the “not” is like a minus sign, and the “and” is like the items when two sets are combined and you have results that are common to both sets.

Some examples of search strategies would include:

- “Sylvia Edwards” and “Queensland University of Technology”;
- “Action learning” and “Queensland University of Technology”.

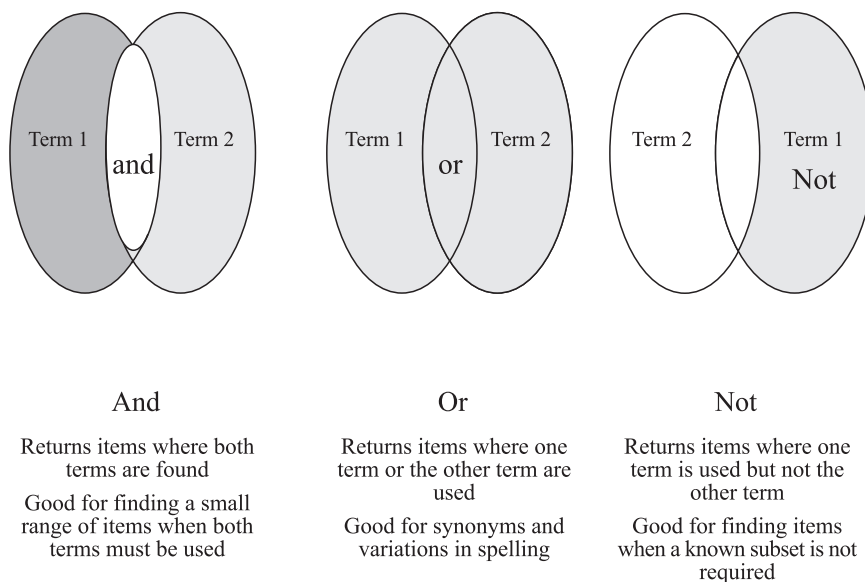
(Note that in some search engines, to express keywords indicating that the words need to be found together it is necessary to have the words surrounded by quotation marks).

*Step four*

Identifying where to start. After constructing the search into a strategy, the next major problem facing the Internet searcher is determining the best place to start the search. Internet searching tools fall into a number of categories. The two main contenders for searching are the search engines (Alta Vista, Hotbot, Lycos, Google, Mamma, etc.) and the subject directories (Yahoo, WWW Virtual Library, Hotsheet, BUBL Information service, etc.). However, there are also local Web servers (Qldweb, Vicnet, city versions of Yahoo, etc.), and most importantly the other people on the Internet who are available via chat sessions, e-mail discussion lists, or newsgroups[2]. As a general rule try not to reinvent the wheel! If you know the information you require is very recent then the best place to start your search is probably through people on the Internet. Try Usenet newsgroups, e-mail discussion lists, or using a Chat session to ask others if they know where the item may be stored on the Internet.

If the information is likely to have been available for a few months then try subject directories or search engines. A subject directory that specialises in a given subject area is a very useful tool for keeping up to date in that subject area, particularly if it is maintained by some subject experts in the field. Finally you can try the search engines of the Internet, but there are tricks to how these should be used. It is important to remember here that each search engine gathers and collates

Figure 5 Boolean logic searching



resources according to the way in which the engines have been designed, and each system is different. This means that for each Internet search engine the same query typed into the system may produce different results.

#### *Search tips*

It really pays to spend some time learning the tricks of how these search tools work. This will help teach you how to improve your overall search strategy, as well as help you learn to translate the strategy into the format most suitable for the tool you plan to use. As all search engines are organised and designed in different ways, a key to planning any search is learning how to achieve the best results by optimising your search to suit different search engines.

To summarise some of the techniques in planning, the search techniques in Figure 6 may be useful[3].

#### **Acting on the planned search**

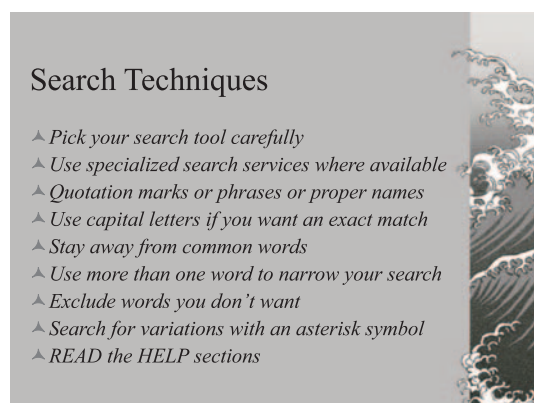
Finally, you may attempt to close the search strategy and retrieve the information from the search tools you have used. At this point you do need to consider briefly whether or not the resources you have found meet your needs in the first instance. If not, further refining of your strategy may be required. You have now moved on to the next stage of the model, that of acting or conducting the actual search.

In most cases, an effective search strategy that is planned and executed carefully using Boolean logic and a strong familiarity with and use of search engine features will ensure reasonably satisfactory results.

#### **Recording the search plan and results**

Particularly when learning how to search the Internet, it is useful to record the search plan,

**Figure 6** Search techniques



the process you follow when online, and the results. It is always essential to record results. Keep detailed notes of which resources you used and how you searched them.

Once the information has been retrieved from the Internet a number of options are available to store the results for further reference. You may simply print the results, or bookmark the results using the Internet browser. If you recognise that long-term storage is necessary then the options here include the simple way of saving to a disk file, and the more complex systematic approach of designing an information management system to store the recorded results for later use.

If permanent storage is necessary, the end user of the system should consider what would help them to retrieve the information easily at a later date. They may therefore need to consider a uniform system of arranging citations, including notes or abstracts about the record, and may include subject headings or keywords useful for text retrieval from the storage system. Helpful tools include simple card filing systems, and more complex electronic bibliographic storage systems such as Endnote, Procite, Reference Manager, RefSys, and the like. In both cases minimum information should be included in the details, but certainly include author's name, title or Web site, subject, URL (or Web site address), date of when material was produced or last updated, and finally the date the item was retrieved from the Internet (date last accessed).

#### **Reflection on and critical evaluation of results**

It is crucial to remember that the Internet is a porous information medium. It is cheap to use and easy to abuse by anyone who has access to it. These qualities add extra imperative to the task of critically evaluating materials found on the Internet, making this appraisal stage more important, and sometimes more complex or difficult than ever when searching for useful, reliable information.

It means that if you intend to use information that you found on the Internet, you need to consider carefully the quality and usefulness of this information even more rigorously than if you had found the information in a more traditional – some would say reliable – source such as a printed publication. The information found on the

Internet can vary from pure propaganda, joke or deliberate deception, to genuinely valuable information resources from authoritative, reputable agencies.

In general, keep in mind the following questions when you evaluate information from the Internet:

- Who put this on the Internet?
- What was their intention in putting this information here? Does the person who put this information on the Internet have an agenda – personal, political, commercial or otherwise?
- Is the information a personal opinion?
- How can I know/assess the reliability of this source? Is the source authoritative in the area?
- How can I assess the accuracy of this information?
- Is the information up to date? How often is the information updated?
- Is this information provided as advertising to sell a product overtly or covertly?
- Are the claims made in the information backed up by references and verifiable evidence?

Put simply, if you wanted accurate and unbiased information about the dangers of smoking, would you go to the smoker's homepage for that information? Probably not. On the basis of thinking critically about your results, you may want to review your search plan and undertake more searching.

### Ways of thinking about and ways of learning about the Internet

Preliminary research is under way to investigate differences in peoples' approaches to, and experiences of, Internet searching. The following quotes from Internet searchers are taken from a research study currently under way (Edwards, in progress). The study aims to uncover variations in peoples' Internet search experiences.

[I] never seem to get the things right. I always need to refine and refine and refine the search strategy before I can finally get what I need. By practice and experience . . . even reading through . . . examples and guides . . . it only gives you ideas . . . on what to do. I find that search strategy needs [a] great amount of experience so that I can get what I need more efficiently.

I changed from using Hotbot/Metacrawler to Dogpile, and rather [than] searching by topics I found it very successful to search author names of reputable articles that I was already aware of. My results were different, but more useful.

By using meta-search engines you learn quickly which smaller engines you prefer or find most suitable for your needs. It also gives you the opportunity to compare different search strategies between engines.

Setting your homepage to a reputable source is also helpful.

I also [realised] something. Don't always stick to the topic, [rephrasing] the topic is important too.

In each case, the searcher reflects on what they have experienced and learned, and uses these experiences in an attempt to further enhance their search-strategy planning. They may also choose different tools on the Internet to find the resources they require. This suggests that the idiosyncratic experience of individuals is likely to influence the ways in which they will engage with the elements of the action research Internet searching model.

### A constantly changing Internet environment

Finally, we must consider that while people experience Internet searching in different ways, and learn about the Internet in different ways, they are also affected constantly by the changing nature of the information tool they are choosing to search. The Internet is a constantly changing and dynamically evolutionary environment within the field of information technology. Information technology changes rapidly, and the Internet itself grows at a phenomenal rate (Edwards, 1999).

This environment of constant change challenges searchers as they continue to use the Internet. The model we have presented in this article allows users to respond effectively to this constantly changing technology environment, and encourages the searcher to use action research principles to inform their searching and reflecting, and to learn new techniques as the tools change around them.

### Conclusion

Action researchers need to consider the value of the Internet as one of a number of

potentially valuable information sources. Their personal research and consulting activity can only be enhanced by using this information resource judiciously. As action researchers become more comfortable with the Internet and make their own resources available to others using this technology, the Internet will become critical among the action researcher's information sources.

We expect that the model we have introduced in this article will be useful for teaching and learning and for using the Internet. We believe it will be valuable to educators, researchers, consultants, and other Internet users to inform their own practice as well as for use in teaching and learning environments. We offer the model in this spirit and hope that it will help to foster, enrich and empower the action learning, action research and process management (ALARPM) community.

## Notes

- 1 See for example James Glave, "Lycos trails the search scene ... or does it?", available at: [www.wired.com/news/technology/0,1282,1154,00.html](http://www.wired.com/news/technology/0,1282,1154,00.html); Ross Tyner, "Sink or swim: Internet search tools and techniques", available at: [www.lut.ac.uk/info/training/finding/sink.htm](http://www.lut.ac.uk/info/training/finding/sink.htm); Danny Sullivan, "Search engine watch", available at: [www.searchenginewatch.com](http://www.searchenginewatch.com); Jian Liu, "Choosing and using Internet search engines", available at: [www.indiana.edu/~librcsd/search/](http://www.indiana.edu/~librcsd/search/)
- 2 For help with "People as a source of information on the Internet" see Sylvia Edwards, Information Resources NetSites available at: [www.fit.qut.edu/~sylvia/teaching/resources.html](http://www.fit.qut.edu/~sylvia/teaching/resources.html)
- 3 Further information is available from Ross Tyner, "Sink or swim: Internet search tools and techniques", available at: [www.lut.ac.uk/info/training/finding/sink.htm](http://www.lut.ac.uk/info/training/finding/sink.htm); Jian Liu, "Choosing and using Internet search engines", available at: [www.indiana.edu/~librcsd/search/](http://www.indiana.edu/~librcsd/search/)

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# Reflective Internet searching: an action research model

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## Keywords

Internet, Action research

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## Abstract

Sources of information and other opportunities available via the Internet are increasing exponentially. This comes with the steady increase in Internet use for education, marketing and commercial trading, and in government for communication of information to citizens. Using the action research cycle of planning, acting, recording and reflecting, this article introduces a model for an approach to Internet searching and use. The model is a conceptual framework for Internet searching that will help people to overcome the challenges of working within an environment that is subject to continuous change, both in the forms of technology used and in the content that is available through the Internet. Our model encourages the searcher to use action research principles to enlighten their searching, reflecting and learning about new techniques as the tools that they use change around them. Our model should prove valuable to educators, researchers and consultants to inform their own practice as well as for use in the educational environment.

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## Introduction

The Internet is an increasingly popular and useful (but also for some, increasingly confounding) electronic medium. As a worldwide network of interlinked computer networks, it enables us to communicate, and to access or provide information wherever an Internet connection is available, which is almost on a global basis. Unlike many other information sources it is relatively unstructured; indeed it is often described as “chaotic”. The Internet, in its earliest form, was a product of the US Department of Defence in the early 1970s. Today many people think of the Internet primarily in terms of two of its key elements, the electronic mail facility e-mail and the World Wide Web. While we recognise that in the poorest countries there are still many people who have neither access to or knowledge of the Internet, the Internet is already institutionalised in the lives of many and this trend appears set to continue.

Thus, for learning organisations in most parts of the world, effectiveness of the Internet is no longer a luxury but an imperative. Internet use is steadily increasing in the education sector for teaching and learning, in the commercial sector for marketing and commercial trading, and in government for communication of information to citizens. Researchers around the world use the Internet on a daily basis for seeking out the work of others, communicating with colleagues and making their own work available to the community at large. Educational material is made available electronically to students and interactive learning opportunities are presented. In their everyday life, people who have access to the Internet are confronted with growing opportunities to communicate electronically – to shop, bank, trade, read the newspaper, and pursue diverse interests that are important to them in areas such as health, the law and the money market. Ever more people are aware that the sources of information and other opportunities available via the Internet are increasing exponentially. This presents a potential problem: with so much information and opportunity available electronically, how do Internet users use the Internet most effectively for their purposes – for searching and for selecting from the massive amounts of material to which the Internet gives access?



This article introduces an approach to Internet searching and use that is based on the action research cycle of planning, acting, recording and reflecting. The model is a conceptual framework for Internet searching that will help people to overcome the challenges of working within an environment that is subject to continuous change, both in the forms of technology that users need and in the content that is available to them. We offer this model to all Internet users, though we recognise particular utility for the action research community, with the expectation that it will have some value for consultants, educators and researchers in their own practice and will facilitate development of their clientele.

### Information and technology literacy for the twenty-first century

In proposing an action research model for searching the Internet, we seek to contribute not only to people's use of the Internet, but at a broader level to the information and technology literacy of those who use it. Why do we believe that this is important?

While the information technology revolution continues, we are simultaneously confronting the inevitable development of the digital divide. Many communities and individuals do not have access to Internet technology, and some who do have access to this technology do not always have the skills or desire to maximise its use.

We cannot provide access to technology for those who do not have it. But we can empower communities of learners who have some access through information and technology literacy. Information technology literacy is the ability to work with equipment and software at a technical level. Information literacy is the ability to make effective use of information made available through technology and other sources (Bruce, 1997; Bruce and Candy, 2000). The Global Knowledge Partnership is one organisation that has identified information literacy as a key to empowerment and learning in the knowledge society. The Partnership's work is:

... rooted in the conviction that access to and effective use of knowledge and information are increasingly important factors in sustainable economic and social development for individuals, communities and nations (Global Knowledge Partnership, 2000).

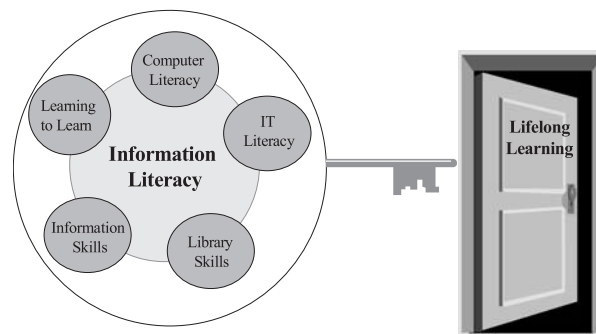
In the education sector it is axiomatic that the ability to access, evaluate and use information is critical for successful learning, and a key to the development of self-directed lifelong learners. In Figures 1 and 2, Denis Ralph, Director of the Centre for Lifelong Learning in Adelaide, has portrayed graphically the relationship between information literacy and lifelong learning.

At a practical level, so much information is available today via the Internet. This makes being able to use the Internet, independently or via an intermediary, a critical element of information literacy. We must remember, however, that it is not primarily technical skills that make effective Internet users, but rather the reflective and conceptual capabilities that are part of the character of the information literate.

### Developing the action research model

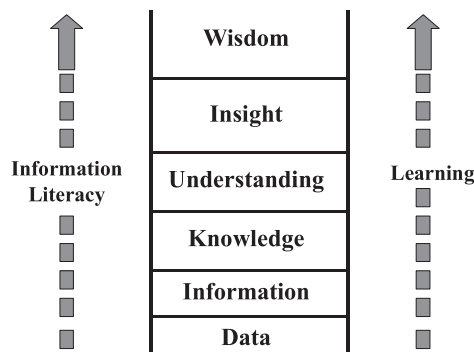
People who have access to the Internet often find that using it is a continual challenge because it is not a static technology. Learning

Figure 1 The key to lifelong learning



Source: Ralph (1999), adapted from Bruce model (1997)

Figure 2 Information literacy and learning



Source: Adapted from Ralph (1999)

to search the Internet is a prime example of learning in a changing environment, in this case a changing technological environment. It is particularly important that information users have the opportunity to critically assess the role of the Internet. They need to consider where it may be important to use this technology, and where other information sources may be more appropriate. This need to convey the importance of a critical, reflective approach to Internet use formed the early motivation to seek a new framework for teaching, learning and using the Internet. We needed to create a conceptual model to facilitate its most effective use.

In trying to establish an effective strategy to teach Internet searching to action researchers, we confronted a major hurdle. Although Internet instruction is a considerable industry, and much immediate help is available to the savvy user [1], few conceptual frameworks are available for learning how to use the Internet. Chau's (1997) systematic information retrieval/organisation (SIRO) model, for example, suggests a process of conceptualising information flow between organisations. Her model is likely to appeal to the sophisticated information user.

We believe that the skills-based approach to teaching and learning the Internet lacks didactic power because of the changing nature of both technology and Internet content. We needed something to emphasise reflective competence (Barnett, 1994), and the ability to continue to learn in the face of change because critical concepts are understood (Bowden and Marton, 1998), rather than skills-based competence. We needed to be able to provide users with capabilities that would provide a foundation enabling them to move forward into an unknown future (Bowden and Marton, 1998). We needed a model that would suit the neophyte as well as the more experienced information and technology user.

This situation suggested the need to develop a construct that would emphasise both processes and ways of thinking about or experiencing electronic media, rather than specific skills or discipline knowledge that are likely to have a short shelf-life. Such processes would have to be relatively timeless, and would have to reflect closely people's natural ways of working. In other words, people should be able to relate easily to the model. These criteria pointed us towards adapting an

existing model for literature review to the Internet context.

Action research models have already proven useful in helping people to come to terms with the world of information and information technology. The "reflective model for reviewing the literature" (Bruce, 1996) was created to help postgraduate students interact with their information environment specifically for literature reviews. That model uses the action research process (derived from Kemmis and McTaggart, 1988; Zuber-Skerritt, 1992) as a conceptual framework for the literature review experience. We found that as Bruce's earlier model was embedded in the action research process, and was designed to facilitate a reflective approach to information and information technology, it was easily adapted to the new context.

The remainder of this article proposes and explains the reflective model for Internet searching that we have prepared in the light of the discussion above. The model is not intended to supply all knowledge necessary for a user to become an experienced Internet searcher, but it will provide ways of proceeding that will help the user along the learning path. The experiences gained will be part of the individual's own life context.

### **The action research model for reflective Internet searching**

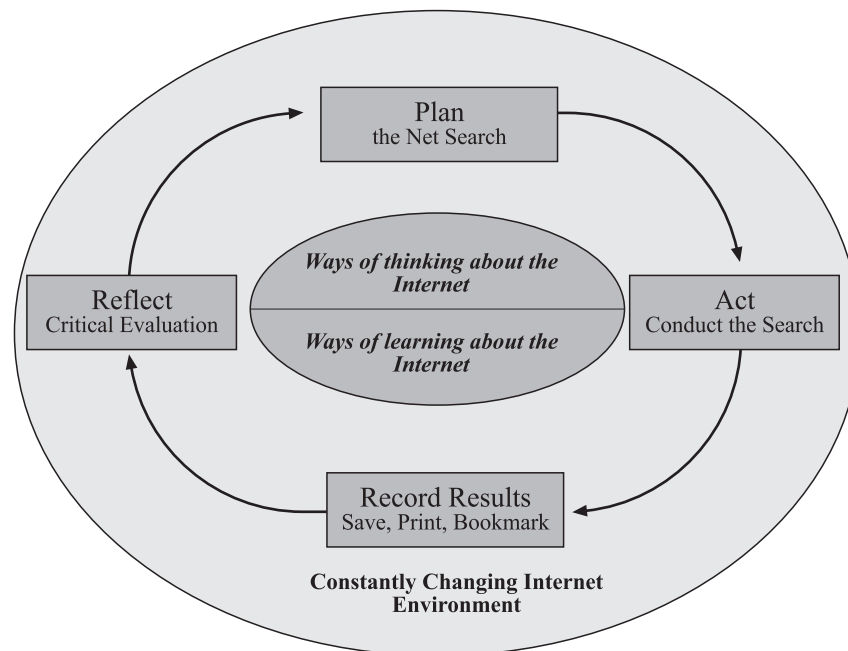
We have adapted the model in Figure 3 from an existing model of reflective practice when searching for information (Bruce, 1992), which itself was based on reflective practice principles (Schön, 1987) and action research (Kemmis and McTaggart, 1988). In this section we discuss briefly each element of the model, to assist those who want to use it. In the following section each of these steps will be explained in more detail.

#### **Planning**

It is important to remember that first attempts to search for information on the Internet will usually not be successful immediately. Most first-time searchers of the Internet find either too few or too many results for their initial search requests.

With this in mind, most people will find it useful to prepare a search strategy. Just as a search strategy is important when searching library databases, the same approach is

Figure 3 An action research model for reflective Internet searching



necessary when searching the Internet. In general, the searcher should carefully plan their search. They should attempt to consider carefully what are the major topics of their information needs, and then plan how to use each of these topics as steps that might be useful in the search they are about to undertake. We will discuss this stage in more detail later in this paper.

Evidence to date suggests that the majority of searchers choose search engines or search engines combined with subject directories (Yahoo, etc.) to undertake their searching, and we discuss these in a later section. Having planned the search and decided on where to search for the information required, the next stage is to act upon the plan.

### Act

During this stage of the searching process the Internet searcher must attempt to remain focussed on the process in hand; it is very easy to be distracted on the Internet. The search results often contain irrelevant information as the search often yields a high recall of results but a low level of relevancy to the final information that a user needs. This low relevance, together with copious links to other necessary resources, easily distracts searchers from their search task.

### Record

This is one of the most important elements. Searchers should ensure they record their

search process and keep results of their search for later use. Logging the search process when using graphical browsers like Netscape needs to be done manually. Searchers may record their search results by: using the save features of their Internet browser to view from a saved disk file the Web site results found; printing the results for later reference (useful since Web sites can close down to our later dismay!); or making use of the “bookmark” or “favourites” features of their Internet browser. Bookmark features allow us to permanently store the name and location of the Web sites.

### Reflect

This stage is also a critical phase in the searching process. The searcher can display the final results of the search to consider them in greater detail. Here the searcher must decide whether these results truly reflect possible solutions to their information needs, or whether s/he needs to refine the search further. If the results appear to meet the searcher’s needs, the searcher ends the Internet search and begins to evaluate results. From here the searcher needs to approach the materials found by assessing the production of this information or “knowledge” with the critical approach to evaluating/critiquing materials that a diligent researcher would apply to any materials discovered. This includes noting the date of the resource

found, and considering carefully for bias, credibility and reliability.

At this point the searcher can cease work at the Internet if they recognise the results to be reliable and able to meet their information needs. If the findings do not satisfy both criteria, the searcher must go back and refine their search, starting again at the planning stage of the cycle. It is useful here to consider each of these stages in more detail.

### Unpacking the model

We will consider here each step in more detail and outline how the changing environment impacts on this model.

#### Planning a search strategy

As with any action research planning, searching is the most important step. The search plan model in Figure 4 (adapted from Bruce, 1992) suggests ways of approaching the planning stage.

This is a dynamic model in that each step should be considered and adjusted continually while planning.

##### Step one

The first step in planning is to step back and analyse the problem for which you are seeking information. To prepare for your Internet search this stage should include asking yourself questions like:

- Is the information I require likely to be current or retrospective information?

- Who are the key authors and organisations working on or related to the topic?
- Which geographical regions are most important to my topic?
- What type of information should I look for on the Internet, recognising as my other potential sources the printed, audio and other materials available from libraries, etc., and that I may also need to create my own empirical findings through interviews, surveys and other first-hand sources.

It is important to consider that most information on the Internet is likely to be recent information. However, the information may often not be updated. Furthermore, older materials will be available on the Internet only if their copyright period has expired. For example, to digitise and capture a complete book of older material is a reasonably expensive process. The relatively young “age” of the Internet therefore means that older materials that may be required by those seeking retrospective information are unlikely to be included on the Internet. In the latter case, the information is most likely to be found in the traditional library or archive. Here you are basically asking whether you should be using the Internet at all.

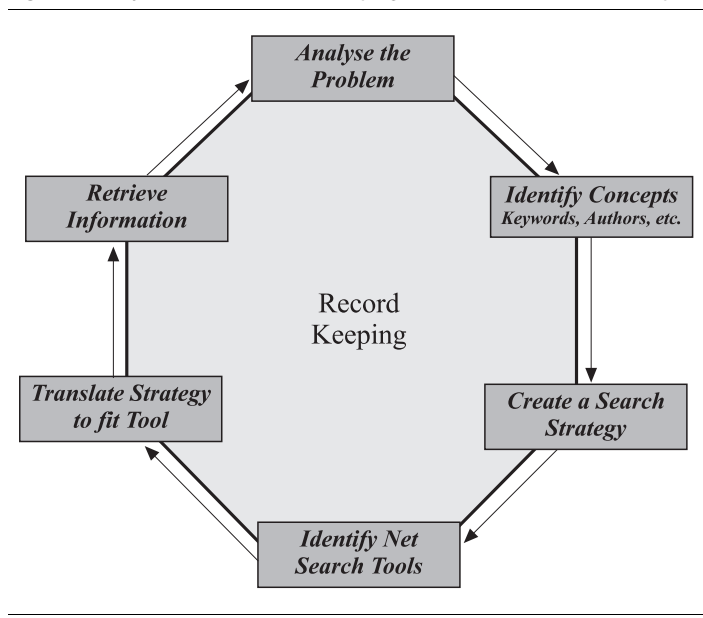
##### Step two

Having decided to attempt to search your topic on the Internet, the next step is to associate your problem or topic through keywords, key authors, or key organisations. Ask yourself the following questions:

- What keywords may be used to describe or associate with your topic?
- Who are the key authors writing in this field?
- What are the key organisations related to the topic?
- Which geographical regions are most important to your topic?

That is, consider what are likely to be the main words used to describe your problem. You must remember that the Internet is a multi-cultural environment, so there may be many ways of expressing your information. Think of synonyms for your keywords and variations in spelling. Try to identify key authorities like research centres or authors writing in this field, as these also may be useful ways to search the Internet for further information needs. With Internet searching,

Figure 4 A dynamic model for developing a reflective Internet search plan



names of authors and organisations sometimes yield more valuable sources than do keywords.

*Step three*

This is the time to combine keywords and names of authors or authorities into a search strategy. During this process you need to explore ways of combining search terms into coherent search statements or strings. For the Internet the keywords usually need to be expressed in one string, as there are usually no option to combine terms from one search with another set of terms. Authors and organisations are searched separately.

When searching for keywords the single combined string can be expressed in a mathematical equation using Boolean logic (see Figure 5). You can combine search terms with the words “and”, “or”, or “not”. If you think about this like a mathematical equation, the “or” is like a plus sign, the “not” is like a minus sign, and the “and” is like the items when two sets are combined and you have results that are common to both sets.

Some examples of search strategies would include:

- “Sylvia Edwards” and “Queensland University of Technology”;
- “Action learning” and “Queensland University of Technology”.

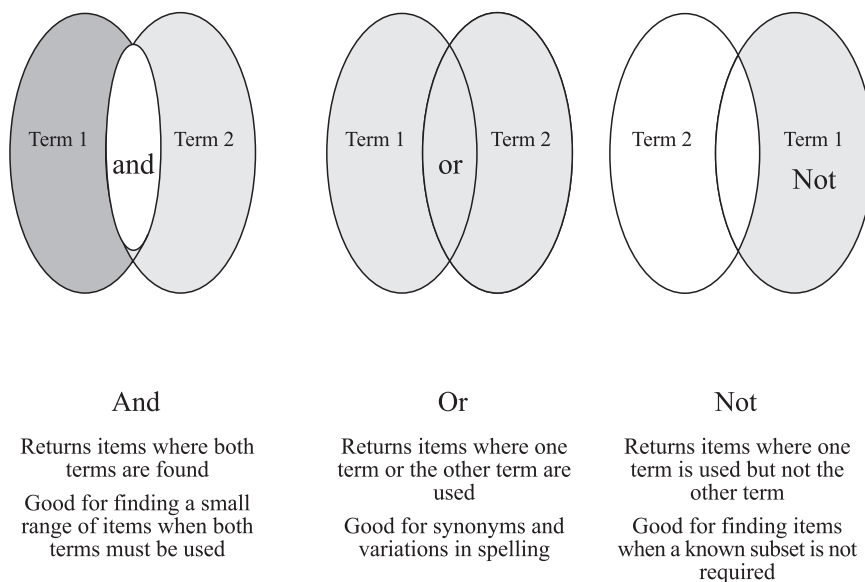
(Note that in some search engines, to express keywords indicating that the words need to be found together it is necessary to have the words surrounded by quotation marks).

*Step four*

Identifying where to start. After constructing the search into a strategy, the next major problem facing the Internet searcher is determining the best place to start the search. Internet searching tools fall into a number of categories. The two main contenders for searching are the search engines (Alta Vista, Hotbot, Lycos, Google, Mamma, etc.) and the subject directories (Yahoo, WWW Virtual Library, Hotsheet, BUBL Information service, etc.). However, there are also local Web servers (Qldweb, Vicnet, city versions of Yahoo, etc.), and most importantly the other people on the Internet who are available via chat sessions, e-mail discussion lists, or newsgroups[2]. As a general rule try not to reinvent the wheel! If you know the information you require is very recent then the best place to start your search is probably through people on the Internet. Try Usenet newsgroups, e-mail discussion lists, or using a Chat session to ask others if they know where the item may be stored on the Internet.

If the information is likely to have been available for a few months then try subject directories or search engines. A subject directory that specialises in a given subject area is a very useful tool for keeping up to date in that subject area, particularly if it is maintained by some subject experts in the field. Finally you can try the search engines of the Internet, but there are tricks to how these should be used. It is important to remember here that each search engine gathers and collates

Figure 5 Boolean logic searching



resources according to the way in which the engines have been designed, and each system is different. This means that for each Internet search engine the same query typed into the system may produce different results.

#### *Search tips*

It really pays to spend some time learning the tricks of how these search tools work. This will help teach you how to improve your overall search strategy, as well as help you learn to translate the strategy into the format most suitable for the tool you plan to use. As all search engines are organised and designed in different ways, a key to planning any search is learning how to achieve the best results by optimising your search to suit different search engines.

To summarise some of the techniques in planning, the search techniques in Figure 6 may be useful[3].

#### **Acting on the planned search**

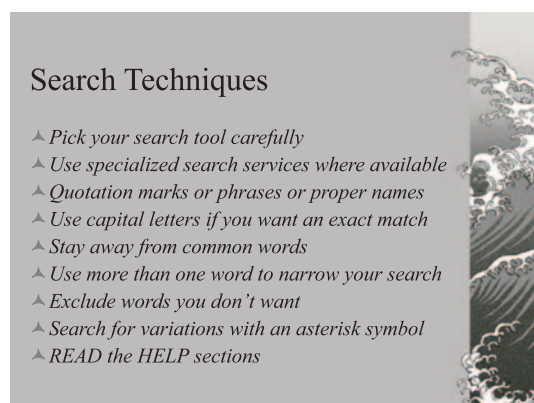
Finally, you may attempt to close the search strategy and retrieve the information from the search tools you have used. At this point you do need to consider briefly whether or not the resources you have found meet your needs in the first instance. If not, further refining of your strategy may be required. You have now moved on to the next stage of the model, that of acting or conducting the actual search.

In most cases, an effective search strategy that is planned and executed carefully using Boolean logic and a strong familiarity with and use of search engine features will ensure reasonably satisfactory results.

#### **Recording the search plan and results**

Particularly when learning how to search the Internet, it is useful to record the search plan,

**Figure 6** Search techniques



the process you follow when online, and the results. It is always essential to record results. Keep detailed notes of which resources you used and how you searched them.

Once the information has been retrieved from the Internet a number of options are available to store the results for further reference. You may simply print the results, or bookmark the results using the Internet browser. If you recognise that long-term storage is necessary then the options here include the simple way of saving to a disk file, and the more complex systematic approach of designing an information management system to store the recorded results for later use.

If permanent storage is necessary, the end user of the system should consider what would help them to retrieve the information easily at a later date. They may therefore need to consider a uniform system of arranging citations, including notes or abstracts about the record, and may include subject headings or keywords useful for text retrieval from the storage system. Helpful tools include simple card filing systems, and more complex electronic bibliographic storage systems such as Endnote, Procite, Reference Manager, RefSys, and the like. In both cases minimum information should be included in the details, but certainly include author's name, title or Web site, subject, URL (or Web site address), date of when material was produced or last updated, and finally the date the item was retrieved from the Internet (date last accessed).

#### **Reflection on and critical evaluation of results**

It is crucial to remember that the Internet is a porous information medium. It is cheap to use and easy to abuse by anyone who has access to it. These qualities add extra imperative to the task of critically evaluating materials found on the Internet, making this appraisal stage more important, and sometimes more complex or difficult than ever when searching for useful, reliable information.

It means that if you intend to use information that you found on the Internet, you need to consider carefully the quality and usefulness of this information even more rigorously than if you had found the information in a more traditional – some would say reliable – source such as a printed publication. The information found on the

Internet can vary from pure propaganda, joke or deliberate deception, to genuinely valuable information resources from authoritative, reputable agencies.

In general, keep in mind the following questions when you evaluate information from the Internet:

- Who put this on the Internet?
- What was their intention in putting this information here? Does the person who put this information on the Internet have an agenda – personal, political, commercial or otherwise?
- Is the information a personal opinion?
- How can I know/assess the reliability of this source? Is the source authoritative in the area?
- How can I assess the accuracy of this information?
- Is the information up to date? How often is the information updated?
- Is this information provided as advertising to sell a product overtly or covertly?
- Are the claims made in the information backed up by references and verifiable evidence?

Put simply, if you wanted accurate and unbiased information about the dangers of smoking, would you go to the smoker's homepage for that information? Probably not. On the basis of thinking critically about your results, you may want to review your search plan and undertake more searching.

### Ways of thinking about and ways of learning about the Internet

Preliminary research is under way to investigate differences in peoples' approaches to, and experiences of, Internet searching. The following quotes from Internet searchers are taken from a research study currently under way (Edwards, in progress). The study aims to uncover variations in peoples' Internet search experiences.

[I] never seem to get the things right. I always need to refine and refine and refine the search strategy before I can finally get what I need. By practice and experience ... even reading through ... examples and guides ... it only gives you ideas ... on what to do. I find that search strategy needs [a] great amount of experience so that I can get what I need more efficiently.

I changed from using Hotbot/Metacrawler to Dogpile, and rather [than] searching by topics I found it very successful to search author names of reputable articles that I was already aware of. My results were different, but more useful.

By using meta-search engines you learn quickly which smaller engines you prefer or find most suitable for your needs. It also gives you the opportunity to compare different search strategies between engines.

Setting your homepage to a reputable source is also helpful.

I also [realised] something. Don't always stick to the topic, [rephrasing] the topic is important too.

In each case, the searcher reflects on what they have experienced and learned, and uses these experiences in an attempt to further enhance their search-strategy planning. They may also choose different tools on the Internet to find the resources they require. This suggests that the idiosyncratic experience of individuals is likely to influence the ways in which they will engage with the elements of the action research Internet searching model.

### A constantly changing Internet environment

Finally, we must consider that while people experience Internet searching in different ways, and learn about the Internet in different ways, they are also affected constantly by the changing nature of the information tool they are choosing to search. The Internet is a constantly changing and dynamically evolutionary environment within the field of information technology. Information technology changes rapidly, and the Internet itself grows at a phenomenal rate (Edwards, 1999).

This environment of constant change challenges searchers as they continue to use the Internet. The model we have presented in this article allows users to respond effectively to this constantly changing technology environment, and encourages the searcher to use action research principles to inform their searching and reflecting, and to learn new techniques as the tools change around them.

### Conclusion

Action researchers need to consider the value of the Internet as one of a number of

potentially valuable information sources. Their personal research and consulting activity can only be enhanced by using this information resource judiciously. As action researchers become more comfortable with the Internet and make their own resources available to others using this technology, the Internet will become critical among the action researcher's information sources.

We expect that the model we have introduced in this article will be useful for teaching and learning and for using the Internet. We believe it will be valuable to educators, researchers, consultants, and other Internet users to inform their own practice as well as for use in teaching and learning environments. We offer the model in this spirit and hope that it will help to foster, enrich and empower the action learning, action research and process management (ALARPM) community.

## Notes

- 1 See for example James Glave, "Lycos trails the search scene ... or does it?", available at: [www.wired.com/news/technology/0,1282,1154,00.html](http://www.wired.com/news/technology/0,1282,1154,00.html); Ross Tyner, "Sink or swim: Internet search tools and techniques", available at: [www.lut.ac.uk/info/training/finding/sink.htm](http://www.lut.ac.uk/info/training/finding/sink.htm); Danny Sullivan, "Search engine watch", available at: [www.searchenginewatch.com](http://www.searchenginewatch.com); Jian Liu, "Choosing and using Internet search engines", available at: [www.indiana.edu/~librcsd/search/](http://www.indiana.edu/~librcsd/search/)
- 2 For help with "People as a source of information on the Internet" see Sylvia Edwards, Information Resources NetSites available at: [www.fit.qut.edu/~sylvia/teaching/resources.html](http://www.fit.qut.edu/~sylvia/teaching/resources.html)
- 3 Further information is available from Ross Tyner, "Sink or swim: Internet search tools and techniques", available at: [www.lut.ac.uk/info/training/finding/sink.htm](http://www.lut.ac.uk/info/training/finding/sink.htm); Jian Liu, "Choosing and using Internet search engines", available at: [www.indiana.edu/~librcsd/search/](http://www.indiana.edu/~librcsd/search/)

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## Epilogue

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The first half of this double issue in Volume 9 of *The Learning Organization* (“Action learning, action research and process management (ALARPM)”) focussed on the origins and concepts of action learning, action research and process management (ALARPM). The focus of the second half (“Action learning and action research models”) focussed on action learning and action research (ALAR) models. The aims of these two issues have been to:

- present a brief history of ALARPM as the amalgam of three separate research and development traditions;
- clarify the meaning of the terms action learning, action research and process management;
- provide frameworks, models and examples of action learning and action research, especially for those who are new in the field;
- discuss the value, validity and choices in postgraduate action research theses; and
- provide useful resources and guidance on the reflective use of information technology.

I believe that the authors have jointly achieved these five aims through:

- presenting a personal history of ALARPM by means of an interview with a founding member of this international association (article 1);
- explaining and defining the concepts of action learning (article 2), action research (article 3) and process management (article 4);

- providing a generic model for action learning programs with action research projects (article 5) and a parallel action learning model, specifically developed in a particular action learning program at the University of Queensland over several years of implementation and evaluation (article 6);
- outlining the research choices for postgraduates (article 7), exploring the differences between traditional research and action research, and between collaborative action research in their fieldwork and individual thesis research, and writing as postgraduates’ original contribution to knowledge in their field of study (article 8); and
- providing a useful guide for using information technology and developing information literacy by means of an action research model (article 9).

This double issue of Volume 9 itself models the action learning and action research cycle of planning, acting, observing and reflecting. It has done so by:

- (1) Explaining the strategic plan in the editorials, introducing the articles.
- (2) Acting upon or implementing the plan by:
  - explaining the theory and concepts of action learning, action research and process management in Issue 3; and
  - developing models for action and providing guidelines for applications in postgraduate studies in Issue 4.
- (3) Observing, monitoring and evaluating the existing ALARPM literature, and the processes, actions and activities in all articles, especially in the last paper on reflective Internet searching.
- (4) Reflecting on positive and negative aspects in each article and drawing conclusions.

I conclude that:

- Action learning is an appropriate philosophy, adult learning theory, methodology and technique for today’s and tomorrow’s times of rapid change. These are times when we cannot rely on printed materials alone (because they are too quickly outdated) nor on outside expert advice (instead of action learning and generic lifelong learning ourselves – at the individual and organisational levels). We must take action wisely and jointly ourselves.

- Action research involves both action (i.e. practical improvement, development, change) and research (i.e. generating understanding, principles, concepts, and theories). As Kurt Lewin claimed, “Nothing is as practical as a good theory”. In contrast to traditional research, action research is research with instead of research on/about people.
- Process management facilitates and promotes both action learning and action research as an integral element of the two. In fact, as is clear to us in preparing this double issue, process management is so essential to action learning and action research that it has proven to be subsumed within these two notions. Indeed, for this reason the concept of process management has not been developed further, nor mentioned, in the recent literature. We have included discussion of process management in article 4 to explain the third pillar of the ALARPM tradition. But I believe that this double issue serves to make clear that process management has become redundant in the title of the ALARPM Association. Hence I recommend that the ALARPM Association remove PM from its name and call itself the ALAR Association, which is also in accordance with its main publication, the *ALAR Journal*.

Those who work in action learning and action research are continuously developing these traditions, which makes them difficult to define. This flexibility and openness to change is congruent with both the nature of action learning and action research, and their purpose of facilitating and accommodating continuous change in the evolution of a particular situation, group or organisation. These approaches are used by people who operate in a local or national environment, but think globally. This means that action learners and action researchers are constantly developing attributes and “soft skills” in communication, collaboration, networking and using predominately qualitative methods of enquiry.

Action learning and action research share much as approaches to learning and research. The difference between them is that action research is more systematic, rigorous and made public in public presentations, published reports, articles, books and/or on the Internet.

Action learning and action research are appropriate in complex situations when the problem is new or has not been solved before and cannot be answered by “yes” or “no”. However, action learning and action research are inappropriate in simple situations when the tasks are familiar and can be done faster by proven methods or computer technology.

Compared to traditional scientific research, action research is not easier to conduct, write up or carry out successfully. Action research is more difficult because this research paradigm is less known and accepted than mainstream paradigms that are still quite firmly embedded in research traditions. Action researchers therefore need to explain and justify what they have done, so that it is assessed and evaluated against its own criteria, rather than those of a different paradigm that may fail to recognise the strengths of action research.

I have found from my own research and from observing the research of my associates that action research is more enjoyable, exciting, stimulating, motivating and satisfying than traditional research. This is because it is directly linked and relevant to our daily work with its here-and-now problems, issues and concerns. Solving these problems through collaborative enquiry, active experimentation, reflection and constant review and revision develops creativity and innovation, as well as improving professional and organisational performance in the long term. The need to rigorously justify and defend my action research approach has, over time, been a profound philosophical experience. It has continued to enrich not just my own scholarly approach and my contributions to this research tradition, but in a more complex, personally stimulating way, to the approach that I have to life.

**Ortrun Zuber-Skerritt**