

# Action Inquiry and Organisational Change in an Educational Setting

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## Introduction

Action Research On Web (AROW) is a long-term project to introduce action inquiry into a university faculty of health sciences, and to develop the knowledge and skill required to do this. The project runs from a World Wide Web site (<http://www.fhs.usyd.edu.au/arow>) that offers open access to one-semester courses, learning modules, an electronic journal, tools for action inquiry; support for learning sets and action research project webs.

Action inquiry is a framework for learning, research and change that includes a number of related approaches including action research, action learning, reflective practice, collaborative inquiry and continuous improvement (Tripp 1996). It is distinguished from other approaches to research and learning by its dual objectives, its holistic or systemic approach, and its capacity to work at multiple levels. Action inquiry combines action (purposive activity to change or improve something) with inquiry (in this context, referring to learning, research or both) in a single process. Rather than breaking a problem into separate parts and attending to one variable at a time, it acts on whole complex systems. With systemic thinking comes an ability to operate at multiple levels, and accommodate reflexivity.

## The AROW system

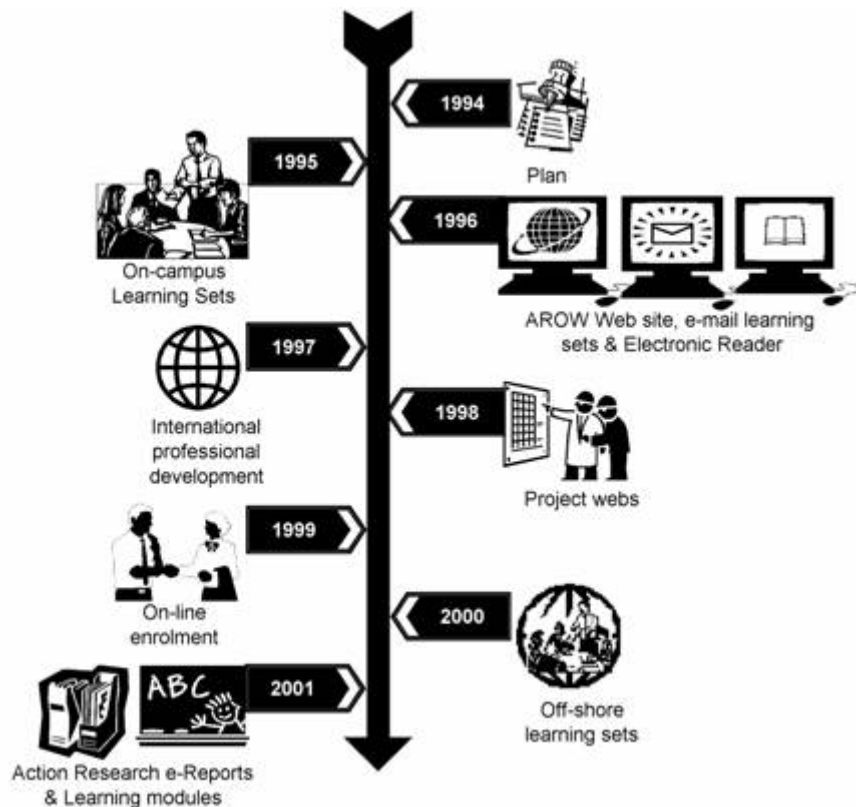
AROW is a system for learning and research nested inside a university faculty that is dedicated to teaching and research in 'clinical and related aspects of the health sciences' (Faculty of Health Sciences 2000: 7). The positivist paradigm (see Zuber-Skerritt, Chapter 1) is dominant in the Faculty, including

an assumption that the same methods can be applied in natural, biological and social research. The 'clinical' orientation of the Faculty carries this assumption into professional practice, including the administration of health services. For reasons that are outside the scope of this chapter, I came to the conclusion that the positivist paradigm has an important place, but is not enough to achieve all of the Faculty's aims. I decided to introduce action inquiry as a method of inquiry, a change practice and a subject for learning.

In introducing and establishing action inquiry into a wider system with which it is not fully congruent, I have not engaged in a struggle to organise the totality. I have not attempted to change the Faculty or the University as a whole, but in Robert Flood's words, to 'organise within the unorganisable' (Flood 1999: 192). After five years I can see that transformation of learning and research is happening, in small local sites inside a larger organisation that is changing at a slower rate.

I started planning the AROW project in the Faculty of Health Sciences in The University of Sydney in 1994. This was not in response to demand expressed at that time, but to prepare for an anticipated need identified in planning processes. In 1995 I designed a one-semester course in action research as a learning system following a somewhat instrumental approach (Davis et al. 1974). In the following year, face-to-face seminars were replaced by e-mail discussion supported by material published on a web site. An electronic reader (Hughes 1996) was added. In 1997 the course was offered as an international professional development program. In 1998 I re-designed the web site, with sub-webs added to support action inquiry projects. On-line enrolment was enabled in 1999, and an employer-sponsored course was offered to rural health professionals in workplace learning sets. In 2000, Overseas Learning Sets were inaugurated, in Singapore in collaboration with Management Learning and Action Research. In the same year, resources for community action research were added, and an associated psychology research project commenced (Campbell 2000). An electronic journal, Action Research e-Reports (Hughes 2001a), was published on the site in 2001. Study modules in community action research, planning and evaluation, as well as resources for learning sets were added during 2001 and negotiations for collaborative partnerships are continuing. This development (summarised in Figure 1) followed principles of action inquiry and organisational learning (Hughes 1997, Senge, 2000). AROW has grown and developed as a self-organising system.

Figure 1: AROW time line



The AROW system includes several elements. The AROW web site is the gateway and resource centre. It is supported by several e-mail lists, which are used by members of learning sets. AROW staff includes the Coordinator and a part-time research assistant employed in the Faculty, and learning set advisers employed by collaborative partners. Students join learning sets for one semester, or for an entire Master of Health Science program (two years part-time) or students may take some modules without joining learning sets. Visitors come to AROW for free access to resources, and some contribute feedback, suggestions and ideas.

AROW collaborates with a wide action inquiry network, particularly through Arlist (Dick ) and enjoys collaborative relationships with Management Learning and Action Research (MaLAR) in Singapore, Southern Cross Institute for Action Research (SCIAR) in Australia, and Centre de Formation en Recherche Action (CIFRA) and Deutsche Gesellschaft for Technische Zusammenarbeit (GTZ) in Central Africa.

The process of organisational change can be discussed by looking through the four 'windows' that Flood suggests can be used to deepen our systemic appreciation and develop strategies for change. Though I did not use these 'windows' in planning change, I find they are useful for description. The four categories are systems of process, of structure, of meaning and of knowledge-power (Flood 1999: 94).

## Process

Processes are the ways things are done, and looking at systems of process involves viewing of the flow of events. Processes have been a major focus of attention in AROW, and it would be easy to devote the whole of this chapter to them. This would result in a partial view, excluding other important considerations.

Action Research, a one-semester course offered since 1995, is designed as a learning system. Each student designs an individual learning project to increase his or her understanding of an aspect of action inquiry, suited to his or her individual learning needs and opportunities. The project may contribute directly to improved professional practice, workplace change or development of new knowledge. Learning is structured by three assignments and four learning cycles. The assignments are: a proposal for a learning project; reflection and discussion in learning sets; and a final paper in electronic format.

Learning is organised into four cycles, corresponding to the phases of action inquiry. Each cycle has phases of planning, acting, observing and reflecting, as summarised in Table 1.

**Table 1: Learning cycles (after Hughes 2001b)**

<b>Week</b>	<b>Cycle/Phase</b>	<b>Learning project work</b>
	<b>Cycle 1</b>	
1	Reflect	Reflect on personal learning goals
2	Plan	Draft plan for learning project
3	Act	Circulate draft learning plan to learning set
4	Observe	Read draft plans from learning set members
	<b>Cycle 2</b>	
5	Reflect	Comment on own & set members draft plans
6	Plan	Revised plan for learning project
7	Act	Circulate revised learning plan to learning set
8	Observe	Read revised plans from learning set members
	<b>Cycle3</b>	
9	Reflect	Comment on own & set members learning plans
10	Plan	Plan presentation of work in progress
11	Act	Present work in progress to learning set
12	Observe	Read works in progress
	<b>Cycle 4</b>	
13	Reflect	Comment on work in progress
14	Plan	Plan final report
15	Act	Write and submit final report
16	Observe	Read examiners feedback on final report

Strategies for improvement of process aim to increase reliability and efficiency. Various models for process engineering or quality management or are offered in the management literature, most originating from manufacturing processes. They cannot be applied directly and uncritically to learning organisations. Knowledge is not a commodity produced in research laboratories, distributed in books and 'poured into' student's heads by teachers (see Zuber-Skerritt, Chapter 1). Students are not passive

raw materials to be made into graduates through processes acting on them. Each student constructs his or her own knowledge in his or her own local context.

The learning system as it now operates is an outcome of continuous improvement through process management cycles, which have been a feature of AROW since its inception. For example, I send an e-mail message to each action research student every week during semester. I save these messages, and recycle them in the following year, with editing. Over five years, I have repeatedly improved the weekly e-mails. I ask each cohort of students to evaluate their learning experience, and use this feedback to improve the next presentation. I review and revise the web site, with new resources added each year. The navigation structure has been revised twice, as the site has grown. Student evaluation now shows less confusion and greater overall satisfaction than five years ago. As resources have been added to the site, students become more independent as learners, releasing staff time from individual tuition to further improvement of the learning system. However, the core business of AROW cannot be reduced to reliability and efficiency of teaching. Issues of effectiveness, meaning and power must also be addressed.

## Structure

According to Flood (1999), structure refers to the patterns of coordination, communication and control in a system. The formal hierarchy of AROW is simple. As coordinator I am responsible to the Head of School and Academic Board for administrative and academic matters, respectively. The students, staff, collaborating partners and visitors all refer to the Coordinator.

The AROW web site, with associated e-mail lists, is the centre of communication. The home page gives access to course information and on-line enrolment; study guides, communication tools, readings and other learning resources. The site also accommodates a journal (Hughes 2001a) and other resources for action inquiry. The web site is not a virtual classroom. We think of a virtual classroom as an online learning environment that 'should not be much different from a real classroom or training room' (Porter 1997: 24). That is, a place in cyberspace where students meet and learn. But AROW participants live and learn in workplaces and suburbs. AROW Students learn in various learning environments. They have access to varied off-line learning resources in their workplaces, homes, cities and suburbs. They use different search techniques, have different interests, and so gain access to different on-line resources. The design of the AROW web site reflects awareness of the range of individual differences among students and their environments.

The heart of learning in the AROW system is the learning set. Many people have adapted Reg Revan's (Revans 1982) original idea, so that today there is a range of related approaches called learning circles, learning sets or by other names. AROW learning sets have fewer than ten members who interact by e-mail each week. Offshore learning sets also meet face to face about once each month, and some students participated in employer-sponsored workshops as well as e-mail learning sets. Learning set

members share knowledge and resources. Some of this activity is organised in the learning cycle, and some occurs informally during or between learning set meetings. Learning sets introduced into the Faculty through AROW have since been adapted to other activities including educational research, doctoral coursework and off-shore learning.

AROW is an opportunity for international and cross-disciplinary cooperation. Students have provided mutual support to projects in education in South Africa; youth work in Canada; nursing in Sydney; theological education in USA; Physiotherapy practice in rural NSW; and aged care in Singapore. AROW has supported action inquiry in health care and education. These have been real projects supported and facilitated using computer mediated communication.

Strategies for improvement of structure usually are about improving the bureaucratic structure of an organisation (by making the hierarchy more flat, for example) or developing alternatives to bureaucratic structures, such as collective decision making, participatory structures, open systems or communal systems guided by values and purposes, rather than rules and hierarchy. In the case of AROW I have not attempted to transform the University bureaucracy, but try to build a community of practice in the spaces and cracks, of a traditional University (Senge et al. 2000: 377). I have found support and collegial relationships through electronic communication with like-minded people outside my own University, and from that base, began to slowly build a community of interest within my own institution. This strategy left AROW relatively independent within the University bureaucracy.

During 2001, following the institution of offshore learning sets a year earlier, the weak emphasis on rules and formal procedures came up against the administrative requirements of the larger organisation. Administrative procedures had to be adapted to accommodate learning sets operating outside the national boundary. By this time the AROW system was accepted in the Faculty, and had demonstrated its value on instrument grounds. Ways were found for the bureaucracy to accommodate this new way of doing things.

The growth and development of AROW can be seen as a change in the larger system of which it is a part. This change was brought about by process of accommodation by the whole to a part, rather than by top-down strategic planning for the organisation as a whole. The meaning and purpose of AROW was not defined at senior levels of the organisation and handed down. Meaning is constructed in the AROW system.

## **Meaning**

AROW is a system for learning; a system that learns; and system with meaning for a larger organisation, of which it is part. A primary purpose of AROW is to facilitate learning about action research and action inquiry by students and people seeking professional development. In this light, I refer to AROW as a learning system, meaning a system for learning. AROW is also a system that

learns, Though AROW is not an organisation, but part of one, the term 'learning organisation' can be applied to smaller systems that learn, and are embedded inside organisations (Argyris and Schon 1978; Senge 1990). In Peter Senge's 'Fifth Discipline' model, (Senge 1990; Senge et al. 2000) the learning organisation is at a conceptual level above the learning system. A learning system involves learning, and a learning organisation involves meta-learning (learning about learning). In thinking about AROW as action for organisational change, my focus is on AROW as a learning organisation. My strategy is not to try to change the whole Faculty or University into a learning organisation, but to grow AROW as a learning organisation inside a School nested in a Faculty, forming part of the University. Systemic thinking tells us that a change in one part will have implications for the whole.

An early problem was to devise ways of learning and teaching that were consistent with the principles and practices of action inquiry. Learning sets were adapted to this purpose, and they required dialogue space in which to operate. A decision was taken early, that this would not be in classrooms on campus.

E-mail is a medium that lends itself to dialogue rather than discussion or debate. Conventional learning in University teaching often presents theories and ideas in the form of a debate, in which two (or more) views are presented in opposition to each other, with one view emerging as superior. Many teachers encourage discussion, in which two (or more) views are presented and defended in a search for agreement on a common view, which may (or may not) contain ideas or elements of various theories. Dialogue is different. Views are presented, and listened to, so that the listener enters into and comes to appreciate the frame of reference of the presenter (Flood 1999). In the practice of dialogue, people pay attention to the words and also to the spaces between the words. This is facilitated by a silent pause after a presenter has spoken, so that meaning can be appreciated and reflected upon (Senge et al. 2000: 75). Asynchronous e-mail provides pauses for reflection. Members of an e-mail learning set do not reply immediately, but have time to read, think, reflect and compose a response. In an additional advantage, the sender of a message receives his or her own words back from the list server, and so has an opportunity to read and reflect on what he or she wrote.

McGill and Beaty list the four main things that learning set members do as presenting, supporting, preparing and reviewing (McGill and Beaty 1995). In AROW learning sets these four activities happen by e-mail, with some learning sets also meeting face to face. The process e-mail encourages reflective dialogue, rather than debate or discussion. A skilled facilitator can enhance this process, whereby students construct their own meanings from their reading, experience, dialogue and reflection. AROW encourages students to re-examine, reflect and reconstruct their personal systems of meaning.

AROW recognises that each student produces meaning and knowledge in his or her own head. This understanding rejects the model of the University as a factory for production and distribution of knowledge. This has implications for systems of meaning. Meaning is not about a 'product' that can be co modified and sold, but is about understanding in the minds of people.

Systems of meaning are important to organisational change. Strategic planning literature encourages change agents to aim for agreement on improvement strategies (Goodstein et al. 1993; Lewis 1995). A focus on systems of meaning directs our attention to the sense we make of words and events; to value systems and ideologies; and the coherence, contradiction or incongruity of thoughts, feelings, values and actions (Watzlawick et al. 1967) in organisational contexts. Flood (Flood 1999) offers a continuum of agreement ranging from consensus through accommodation to toleration of diversity.

When I introduced action research and systemic thinking into a science based faculty, I made no attempt to secure consensus or accommodation from members of the faculty with different values and knowledge about teaching and research. I did not attempt to manage polarised viewpoints, but worked to build a community of interest and practice around action research. In 1995 and 1996 there were very few academics in the faculty with an interest in action research. These few were busy with other projects, or their career interests did not lead them to offer practical support.

The liberal University is tolerant of diversity, especially if new or changing elements do not make demands for change on older or more stable elements. The use of the World Wide Web and e-mail for communication with students and colleagues off-campus meant that AROW could develop as an inconspicuous element in the organisation, without demanding consensus, agreement or even accommodation from academics who were committed to scientific method.

Toleration provided a nursery in which AROW was permitted to grow. As AROW grew and developed, the institution came to accommodate this internal change. More recently key members of the Faculty have come to recognise some advantages and opportunities that AROW and action inquiry can offer the institution. But this does not imply agreement or consensus about action inquiry or its place in the Faculty. The introduction of new elements in an organisation and the process of change always involve questions of power and local politics.

## **Power**

Power is an element in all relationships, and is exercised in subtle as well as obvious ways. Knowledge is important in the university, which is a key institution in determining what counts as valid knowledge in society. People in senior academic positions determine what is to be counted as valid knowledge. The dominant systems of knowledge support and enhance the power of some people, and maintain the exploitation and powerlessness of others, so systems of knowledge have implications for what is fair and unfair inside the university, and in the wider society.

AROW operates within a system of knowledge-power that privileges reductionism, positivism and experimental design research. At the same time action research and systemic knowledge are tolerated in an institution proclaiming liberal values and academic freedom. The institution ambiguously

provides a space within which AROW can operate, and simultaneously withholds the resources needed for it to thrive.

The systems of knowledge and power within the Faculty discount the value of systemic thinking and action research. At the same time, the location of AROW within a major University endows action inquiry a status that carries certain authority and validity. After establishing it in the 'cracks' of the University structure, and keeping it alive for five years, AROW is moving towards the status of an established program in a major University. As a strategy for organisational change, AROW can be presented as a normal part of the University program. This assists acceptance both inside and outside the University. Through the strategy of not attempting to change the organisation as a whole, AROW has reached a point where claims can be made that the Faculty includes an established program for action inquiry and systemic thinking, that sits beside programs of scientific positivism and reductionism. To this extent the character of the Faculty as a whole can be described as changing. I used a strategy of avoiding direct confrontation with established systems of knowledge-power, and working to establish a complimentary system to achieve this.

In a climate of shrinking resources and increasing commercialisation, web-based delivery and the adaptation of learning sets to support graduate courses were welcomed as a way to offer flexible learning into new markets. Strategies for learning that were developed in AROW have been adapted to other activities. This instrumental value enhances the value of AROW to people in positions of power in the Faculty.

Within AROW learning strategies were adopted with specific attention to issues of knowledge-power. Systems of knowledge-power can be used to reinforce patterns of dominance, or to move towards fairer relationships. Flood points to two ways to do this. We can raise the awareness of privileged people, so that they may decide to operate in ways that are fairer. Alternatively, we may work to develop the resilience of vulnerable people, so they are better able to empower themselves (Flood 1999:119).

Many AROW students are in leadership positions within privileged professional elites. Some are from disadvantaged backgrounds, now seeking upward mobility. The facilitation style and participatory emphasis in AROW offers an alternative to these members of a knowledge-power elite. In AROW there is no attempt to establish knowledge on the basis of authority or power. There is no attempt to achieve consensus or shared meaning among participants, but an attempt to gain understanding of the range of meanings that can be attached to key concepts, and an appreciation of difference.

Students learn in diverse ways. Some AROW participants engage in action learning, some work on action research projects, and others engage in related forms of action inquiry (Tripp 1996), including collaborative learning, reflective practice or other action inquiry projects. Students engaged on different forms of action inquiry may belong to a single learning set. There is no single definition of action inquiry or action research that students are expected to subscribe to.

The AROW learning set becomes a self-reflective community (Carr and Kemmis 1986). Each learning set participant is concerned with the transformation of his or her own situation, typically in two dimensions. He or she is engaged in a search for personal transformation through education, and at the same time most participants are actively working for transformation of their workplaces or professional practice. These dimensions relate directly to the twin aims of action inquiry. Learning sets bring people from different professions, workplaces and nations together, to work on varied projects. Participants are required to engage in critical reflection on other people's projects, and receive feedback from people in other professions, workplaces, cultures or countries. This ensures that action inquiry in AROW is not only concerned with transformation of the participant's own local situation. Participants are challenged to reflect on their own learning and action in relation to other projects, and to consider the relationships between problems and situations that are not usually brought into the same context.

As a strategy for improvement AROW introduced a form of inquiry and strategies for learning that tend to increase fairness in an institution that creates privileged elites. Introducing action inquiry into this setting is an opportunity to influence those who may occupy positions of power, and contribute to the definition of what counts as knowledge in the future (following their graduation). Establishing and maintaining AROW within the university is an act of resistance to established regimes of knowledge-power.

The combination of action learning and inquiry with international discussion in facilitated learning sets, supporting each other's learning across national and ethnic boundaries is a tool for international understanding, interdisciplinary dialogue and critical inquiry.

## **Conclusion**

Action inquiry includes a number of processes for learning, research and change characterised by critical inquiry, systems thinking and feedback cycles of action and reflection. Action Research On Web (AROW) is a system designed to introduce change into a university faculty through action, learning research. In seven years the system has grown into a complex system including a web site, electronic publications, e-mail and face-to-face learning sets, workshops and action research projects. Collaborative relationships have been forged with Australian and overseas project partners.

Action learning and action research are robust practices. The story of AROW demonstrates that they can be used with few resources to exert leverage for change on large organisations, without the commitment of senior decision makers. Strategies for change can be analysed in terms of process, structure, meaning and power. Although actual practice in AROW has been messier than this short description might imply, systemic thinking, action in several sub-systems at once, and viewing the situation through multiple 'windows' enabled change to be exerted from a relatively junior position within a large organisation.

Internet technology has facilitated communication, and permitted collaborative, learning and supportive relationships to develop. Much of what has been learned during this project is embedded, in one way or another, on the Action Research on Web site, which readers are invited to visit at [www.fhs.usyd.edu.au/arow](http://www.fhs.usyd.edu.au/arow)

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