



Leadership in network learning: business action research at Monash University

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Abstract

Purpose – The purpose of this paper is to explain the emergent nature of leadership in a university-based learning network of mature-aged practitioner-scholars.

Design/methodology/approach – The paper draws on previously published work, interviews, and current research.

Findings – The paper finds that once initial structures have been established, the leadership role falls to different members depending on the needs of the group. Intellectual leadership becomes important in this setting.

Research limitations/implications – The study is drawn from a single case although supported by research done in a similar group in the UK. Research indicates that cohorts and support networks increase success rates in PhD completions. This paper outlines one example of the structures and processes of a successful one.

Practical implications – There is significant leverage for universities in developing the network structures and process, beyond the simple supervisor/student relationship that support doctoral students. It focuses on the contribution a learning network can make to mature-aged part-time students.

Originality/value – This paper develops the current literature on supervision of doctoral students.

Keywords Action research, Networking, Learning, Leadership

Paper type Case study

A starting hypothesis

Universities are not devoted to the production and distribution of fundamental knowledge in general. They are institutions committed, for the most part, to a particular epistemology, a view of knowledge that fosters selective inattention to practical competence and professional artistry (Schon, 1983).

Abstract

This paper outlines the development of a network of practitioner-scholars in the Department of Management at Monash University, known as the Business



Action Research Cohort (BARC). It examines the necessary preconditions for the establishment of such a group, the structures that support the cohort, the benefits for the participants and university and the developing network as the group matures. The early work has been reported in a series of papers. A first paper (Haslett *et al.*, 2005), discussed the role of action research (AR) in the university/business relationship, the genesis of the work in system dynamics and systems methodology and the role of mature-aged part-time students in doctoral programs and universities. A second paper (Sarah *et al.*, 2002) discussed the initial findings and challenges in conducting business AR. This paper highlighted the importance of Checkland's (1990) framework, methodology, action (FMA) to the work of the cohort, Barton *et al.* (2009) and Stephens *et al.* (2009) have discussed the theoretical base of the Monash work.

History and background

BARC was established as PhD cohort in 2002, when a group of students completed the Master of Organizational Systems (MOS) program, which had a very strong focus on methodology primarily in the areas of systems thinking, AR, and organizational learning. All six of the students who joined the cohort had completed a minor thesis using AR in the master's program. All had some experience of working in a learning set during the master's program that was a significant factor in deciding to work together in the doctoral program. Most importantly, the group wanted to establish connections between the theoretical knowledge embodied in the university and the practicalities of their professional lives. Russell and Ison (2005) drew on the work of Maturana in a specific project in their work at University of Western Sydney and comment on "unlimited enthusiasm for a system way-of knowing and acting in the world [and] a cohort of like minded staff." Five of the students who enrolled were part time and one was full-time. All were mature-aged students with significant business experience and had a common desire to continue the AR work in their organizations. One member of the cohort reported:

Each member shared an interest in action research, systems thinking and was a graduate of the same Master's program – the convenor of which was now prepared to take us all on as our Supervisor. We decided that while the context of our research projects differed, it was the similarities that would bind us. We [wanted to] apply an action research approach to our cohort to develop our learning and practice. This form of peer review is gaining momentum within action research circles, Herr and Anderson (2005) observe that action researchers seek dialogue with peers and opportunities to discuss work with critical friends who are familiar with the setting and can "serve as devil's advocates for alternative explanations of research data" (Jane Olsen, Cohort member, 2002-2007).

The group met once a month at Monash University and over the six years it was very rare for anyone to miss a meeting. Events such as the birth of children and marriages were regarded as sufficient excuse, but when it happened, a note was required.

In addition to the specific work in organizations, the cohort was actively involved in presenting and publishing papers, primarily at Australia/New Zealand Systems Society and in Systemic Practice and Action Research and to date the cohort has published 55 refereed papers. This provided a powerful means for establishing the links between theory and practice. Kelly *et al.* (2004) discuss collaboration between researchers and the community groups:

An account of how this research was shaped by the interactions of the research team with members of the community, how research questions emerged, methodologies were developed, ways of gathering data were tried and tested, and interpretations of data unfolded. Special attention is given to the ways in which the process and products of this research contributed to the community's own process of leadership development.

The original model for this is shown in Figure 1.

In 2005, three new AR cohorts were formed, made up of members of the first cohort and 12 prospective PhD students. At that time, four of the original cohort members had completed their theses and two were continuing their research. Reporting on the development of the new cohorts, Schell and Haslett (2007) stated that, "one of the challenges for the new cohorts will be to develop a community of interest with people at widely different stages in their work." An additional challenge over the next couple of years was the fluid nature of the cohorts, as many of the prospective students chose not to pursue a PhD. In late 2006, the three cohorts were rolled back into one with an effective membership of about 12, only three of whom were new PhD students. By the beginning of 2009, the cohort had stabilized its membership and had five students in the early stages of their AR PhD projects. One of the explicit agreements that was reached during the life of the original cohort was that graduating students would return to the cohort to mentor the next generation of PhD action researchers. As a result, supervision of the five new students is shared between the Monash supervisor and the PhD graduates. A number of other Monash academic staff also joined the cohort in 2008, bringing the number of attendees at each meeting to between 12.

The changes within the cohort over this three-year period proved to be as challenging as had been anticipated. The dynamics of the extended group did not work well for the new candidates who had heard much of the experience of the initial cohort but found little in the current group that replicated those experiences for them. New members of the group frequently admitted to being intimidated by the ease with which the original cohort members spoke together about both the theory and practice of AR. In late 2008, the PhD candidates separated out and formed their own cohort of five,

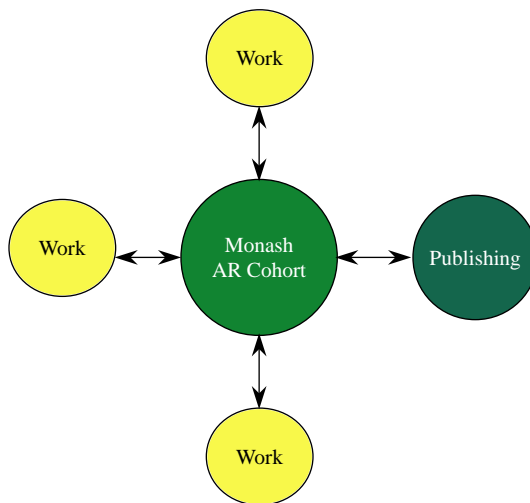


Figure 1.
Original BARC model

which meets once a month to discuss matters of specific concern to them as PhD students. This group also remains active members of the larger group and will soon start to contribute to the growing list of cohort publications. At this time, the new arrangements are working well. During a recent meeting, reflecting on the newly formed cohort, one member of this group wrote “I find that in the larger group I do not understand very much of what is being said. In the smaller group, I do not hesitate to clarify my thoughts.” Another wrote that this cohort has given him “enormous value, technically” and “comfort from being in a group – belonging.”

Another original member, Dr Susanne Tepe was appointed to a professorial position in occupational health and safety at nearby Royal Melbourne Institute of Technology and has begun establishing AR and systems thinking in her university with the help of Dr John Barton, the founder of the original MOS program and continuing member of the cohort (Figure 2).

The academic and intellectual basis of a learning network

Until recently, Bath University had an AR based PhD program, similar to that run at Monash; the Postgraduate Programme in Action Research (PPAR), conducted at the Centre for Action Research in Professional Practice and led by Professors Peter Reason and Judy Marshall. Both programs were cohort based, with a focus on AR and incorporated aspects of systems thinking in their teaching and learning. However, while the Monash PhD program developed out of a specialist master’s program, providing a common background and worldview for its participants, the PPAR had three phases: diploma; MPhil, and PhD, that enabled the common worldview to develop over the course of the program, ensuring that it was at its strongest in the PhD phase. Both programs are the subject of PhD research being conducted by one of the members of the Monash AR cohort.

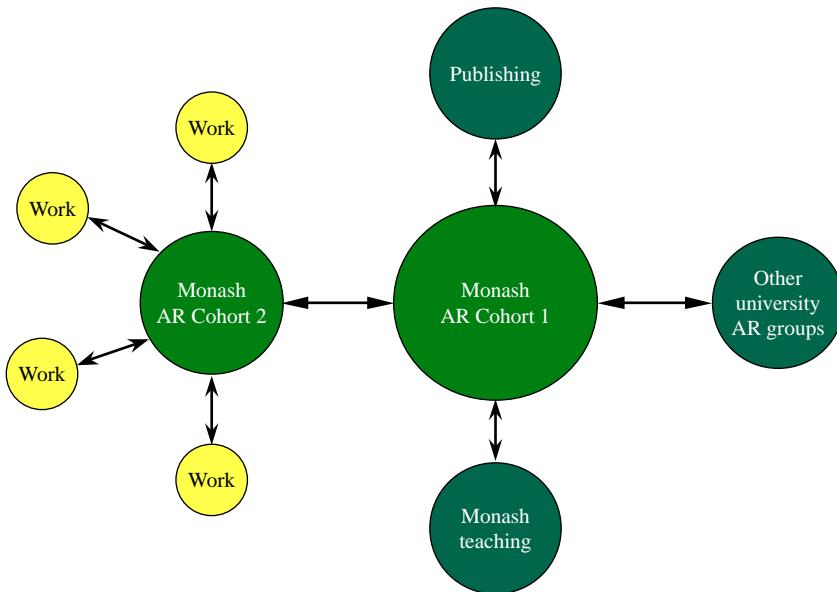


Figure 2.
Extended model of the
BARC

Preliminary findings from Liz Schell's PhD research to date shows the same five factors contributing to the effectiveness of the learning networks formed by the AR PhD cohorts at both Bath and Monash, namely: process/environment; relationships/collaborative learning; intellectual stimulation; philosophy; and outcomes/results. Process/environment refers to the range of processes put into place, and activities undertaken by the group, that ensure the creation of a "space" for group learning to be undertaken. Relationships/collaborative learning refers to a range of factors that are inherent in effective group learning situations, including: emotional and intellectual support, friendship, mutual obligation, interdependence, and collaboration. Intellectual stimulation involves exploring ideas using discussion and debate, sharing learning with others, developing insights, and working together to create new knowledge. Philosophy refers to the shared body of theories and approaches that are in use by the group. Outcomes/results include new knowledge creation, publication of journal articles that document the new knowledge, the reputation of the group, which grows from conference participation and publishing papers, and PhD completions.

The intellectual basis for the work at Monash was largely based on Flood's (2001) work which had been instrumental in shaping the master's program and which had argued that the systems thinking disciplines of system dynamics, soft systems methodology, critical systems thinking, total systems intervention and complexity theory are necessary prerequisites for conducting AR. All of these areas of theory had been included in the master's program that all the students had completed. The extent to which this common background was a critical factor in the success of the cohort was a current theme of the conversations still held during the meetings. It was also recognised that the training in the systems disciplines had developed a common worldview amongst the members of the cohort. Campo *et al.* (2008) observed that similarity in terms of experiential level breeds mutual learning and complementarity of knowledge were important for the formation of learning ties.

There is significant agreement amongst the members of the first cohort that the MOS program was fundamental to the functioning of the cohort. There is no doubt that a common intellectual and academic background is a critical success factor to the functioning of a PhD cohort. PhD theses are by their very nature highly specialized and the MOS program may have provided a commonality of specialization that is rare in many academic departments.

As the work of the cohort developed, a number of "big ideas" became seminal to the cohort's thinking. The first of these concerns the role and relationship of the action researchers and their organizations. Checkland's (1981, 1985) FMA provides a useful framework for the analysis and discussion of this (Figure 3).

The work of cohort members in their organizations was primarily concerned with the action component of Checkland's FMA and reflection on the success or failure of that action. The learning was focussed on learning within the organization. The work of the cohort was essentially different. Here, the emphasis was on frameworks and methodology, rather than the area of investigation, which were considered by the cohort to be too esoteric for discussion within the workplace. As the work of the cohort progressed, the discussions increasingly focused on the intellectual frameworks that were being used. There was a small group of theories that formed the intellectual core of the work that the group did.

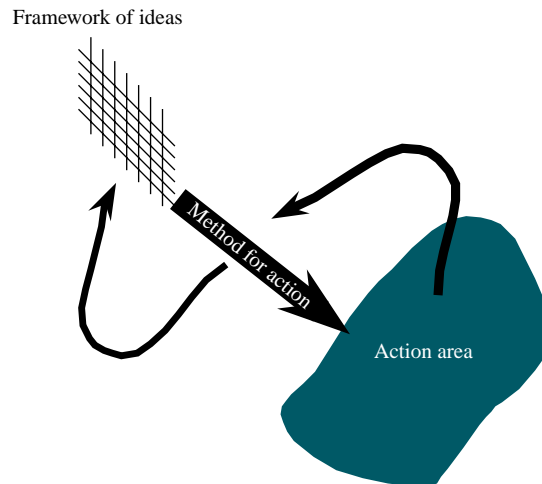


Figure 3.
Checkland's FMA

The FMA structure itself was a frequent focus of the discussion as it provided the structure for understanding the role of the cohort in contrast to the work being done in the organizations. Beer's viable systems methodology provided a powerful tool for the understanding and diagnosis of many of the organizations. The use of metaphor as a sense-making tool is well documented but most particularly useful in helping the group understand the darker moments of their professional life when retrenchments, the loss of key sponsors and the cancellation of projects threatened the viability of their work. Finally, the work of C.S. Peirce and the role of induction, deduction and abduction in AR identified and strengthened the connections to traditional research methodologies.

Most importantly, it was the idea of learning cycles that is inherent in the AR process that allowed the group to revisit and refine the central ideas and theories of their work. The importance of this was emphasized in the series of interviews that were conducted with members of the cohort. A significant number of responses listed the importance of intellectual stimulation for the reasons they continued working in the cohort.

This is supported by sections of the appreciative interviews conducted as part of Liz Schell's work with the cohort:

We all have a long-term commitment to our quest for knowledge. If that wasn't happening, people would withdraw. It's not just sharing research, but what's behind that – the learning.

We value the intellectual stimulation and doing intellectual things together, e.g. attending conferences.

Tim Haslett and John Barton have a wide knowledge, which made our discussions more intellectually stimulating. We've now taken on a lot of that knowledge. We're now a self-reinforcing system.

Maintaining the intellectual content of the network evolved over time but, ultimately, became the role of a number of key individuals. All members of the group were familiar with the work of Checkland and the FMA and the importance of this framework in the

early operations of the group cannot be over-estimated. Checkland's model enabled the group to make a clear distinction between the work of the cohort that was essentially conducted within the ethos of the university and the work of the AR that was conducted in the workplace. This two-tier structure allowed the cohort to work at two levels: at the theoretical level (appropriate to university) and at the practical level (appropriate for the workplace). This two-tier structure is likely to be a key to success of business AR, providing the researcher with a space for meta-reflection on the AR process. For business AR to make a significant contribution to the field, work needs to be "recoverable" (Checkland and Howell, 1998). Given the disparate nature of the projects, it is highly unlikely that similar sites will be found to conduct AR. However, many of the theoretical constructs and innovations related to frameworks are far more easily recoverable by other researchers. Other bodies of theory had a similar role in shaping the thinking of the cohort.

The integration of viable systems theory and the work of BARC

Starting with Checkland's (1985) FMA template, the cohort's AR praxis was drawn toward some quite foreign but nonetheless robust theories. Stephens (2007) brought to the cohort Beer's (1985) viable systems diagnosis (VSD) via Ashby's (1956) Law of Requisite Variety (LRV) and the foundations of cybernetic theory (Weiner, 1948).

Through cybernetics, a tripartite science of theory, description and application, the cohort was introduced to a formalised account of the nature of control, operating in exceedingly complex, probabilistic, and self-regulating systems in real world situations. It followed from an AR praxis perspective that cohort members began to identify the potential of synthesising new methods to better control organizational destinies, via interconnections of robust theory, coherent action principles and emergent outcomes. Cybernetic theory thus brings important considerations to AR praxis because:

[. . .] the logical theory of cybernetics involves a tripartite science; a theoretical science [which is] the pure aspect; a descriptive science [which is] the practical technique; and an applied science [which is] the way the theory and the practice are brought into real use (Beer, 1959, p. 61).

This cybernetic foundation was critical in Beer's (1959, 1966, 1972, 1974, 1979, 1985) synthesis of a method that aims for implicit control in organizations. In this light, Beer's (1985) VSD suggests that the types of situational circumstances faced by action researchers, are in fact open systems kept under control by non-deterministic, inherent feedback systems. VSD thus brought to the cohort concepts such as variety – a measure of complexity or the number of possible states of a system, attenuators – devices that reduce variety, and amplifiers – devices that increase variety. Further, VSD emphasized two notions: recursion – a next level that contains all the levels below it and homeostasis – the stability of a system's internal environment despite the system having to cope with an unpredictable external environment.

However, the detail of these concepts and the obscure lexicon of Beer's major works did aggravate the complexity of VSD for the cohort. To counteract this, Stephens introduced terms and phrases so that the cohort could better understand the principles which underpin Beer's work. For example, Stephens (Stephens and Haslett, 2009) related Ashby's LRV only variety can destroy variety to a manager becoming smarter than the situation he is trying to manage (Barton and Haslett, 2007), linked Recursion

with Beer's depiction of a set of Chinese or Russian dolls and likened Beer's desire to ameliorate or attenuate variety to a sound system volume variety dial.

Stephens says that in doing this, he is simply paying attention to Ashby's LRV. Further, by introducing the simple formative depiction of the five cooperating systems in VSD – policy, intelligence, control, co-ordination, and operation (used in his organization and shown below as PICCO) he showed how complex theory might be repackaged for organizational usefulness – again paying attention to Ashby:

System 5. Policy – who or what will ultimately make the operational decision?

System 4. Just who or what is to gather the required intelligence?

System 3. Control – who or what is to direct the operation?

System 2. Co-ordination – who or what is to commence the organization of that operation?

System 1. Operation – what does the operation concern?

Checkland (1993) says the “urge to know” (*scientia, epistémé*) is quite unlike the “urge to do” (*techné*). Hence, the cohort's urge to do highlights achieving, rather than just thinking about practical ends. Our AR praxis now considers interconnections of theory which highlights an epistemic stance that knowledge development is progressive, cumulative and purposive, the shaping of that theory into a set of management principles that are understandable and relevant in real world situations and outcomes that provide for better control of organizational destinies.

The importance of Peirce and Pepper to the AR cohort

To understand the importance of Peirce to the AR cohort, we must go back to some academic circumstances relating to the development in the 1990s of the MOS program and the place of the cohort within the Department of Management at Monash University.

The creation of the MOS program in 1995 resulted from an interest within the department of the emerging field of organizational learning and systems thinking made popular by the publication of *The Fifth Discipline* (Senge, 1990). This occurred at a time when the department's leadership encouraged new thinking and the development of a new coursework master's program was possible. The resulting program was built around core subjects in systems thinking and theory, organizational learning, system dynamics modelling, and chaos theory, and recognising that the candidates were practising managers and not so much interested in conventional management research but in an AR project.

This formula worked well but, in 2000, the program was cancelled although some subjects “remained on the books” albeit within a broader Master of Management program. While various reasons were offered for cancelling the program, the basic reason was that the program was identified with Talcott Parsons' structural-functionalist school. This experience raised a number of challenges that became important to the AR cohort's doctoral aspirations and the need to demonstrate academic rigour:

- Can systems thinking be more broadly defined so that it places the structural-functionalist view into a wider context and facilitates the incorporation of the “new” approaches to systems thinking?
- What is the role of the systems concept within the scientific method?

- Is systems thinking purely associated with synthesis?
- Does AR have a legitimate role in science?
- What is the relationship between AR and systems thinking?
- What can the field of systems thinking and AR offer contemporary management practice?

Barton and Haslett (2007) attempted to answer these questions and a number of related papers provide some of the key arguments. In summary, the following arguments were developed.

The history of systems thinking goes back to antiquity resulting in the recognition that a “system” is a cognitive construct for understanding complexity. From at least Greek times, and including the mediaeval period through to the enlightenment and the modern period, the system concept was associated with framing “systems of knowledge.” Indeed, after von Bertalanffy’s (1968) enormous contribution to science by his destruction of vitalism using his open systems hypothesis, his real contribution to systems thinking was his attempt to use his open-systems construct as a building block for defining isomorphism between the disciplines. Regrettably, the anti-mechanistic rhetoric associated with the vitalists stayed alive and became the organizing focus of many contemporary “systems thinkers” so disenfranchising some of the greatest systems thinkers known to science (Barton and Haslett, 2007).

Individual systems frames are associated with different (but not always distinct) metaphors. This can be made even more explicit by associating various systems approaches with Pepper’s (1942) “world hypotheses” and his four “root metaphors”:

- (1) *Formism*. Associated with classification systems.
- (2) *Mechanism*. Associated with both static and dynamic machine-systems.
- (3) *Organicism*. Associated with emergence, self-organization, and chaos; “naturalistic” systems.
- (4) *Contextualism*. Associated with social ecology and co-evolutionary systems.

Emery (2000) made the important observation that it was only contextualism that included human, purposeful behaviour, and as such, this was the only true “open system” and that Pepper’s first three metaphors corresponding to “closed systems.” One possible implication of this is that while the closed systems constructs are used to frame hypotheses, it is only contextualism that accommodates taking action and is the legitimate domain of the action researcher.

The systems construct lies at the centre of the scientific method (Barton and Haslett, 2007). This can be seen by recognising that by definition, hypotheses must be framed systemically. Otherwise, they have no meaning. Furthermore, when the scientific method is described as analysis-synthesis dialectic, this systems construct determines not only the way parts are placed into synthesis, but also the way they are analysed.

The analysis-synthesis dialectic can be described in terms of modes of logical inference which, following the Greeks, was shown by Peirce to involve three types:

- (1) *Abduction*. The creation of hypotheses.
- (2) *Deduction*. The logical consequences of the hypothesis.
- (3) *Induction*. The correlation of data with hypothesis.

This framework can be further used to describe the scientific method as the application of these logics to “closed systems” and AR as the application to “open systems” (Barton *et al.*, 2009). Contemporary management practice can be interpreted in terms of the systemic framing of issues and acting on the “hypothesis to the best explanation” using the principles of AR.

In summary, it is argued that systems thinking and AR, rather than being at the margin of the scientific method, are in fact at the centre. Furthermore, Peirce’s pragmatist philosophy with its continuous world view (synechism and tychism), its pragmatic definition of meaning, its phenomenology based on three categories that provide a logical basis to semiotics, its modes of inquiry and rules of inference that define the scientific method, and finally, Peirce’s assumption of fallibility (which necessitates pluralism and team learning), provide a logical basis within which to consider contemporary systems thinking, and contemporary management practice, and the work of the Monash cohort.

Despite this, the Monash cohort largely operates “underground” – it is described by some as a “skunkworks” – and, despite its significant academic output, it is still not recognised as a key research area within the department.

Tidal waves and Siberian winters and the value of a cohort

A review of interviews conducted by Jane Olsen identified that tidal waves and Siberian winters as metaphors for a consistent experience across the group. All cohort members experienced at least one state if not both. Members consistently ascribed a positive or negative value to each state with tidal waves generally being described as positive. Tidal waves were experienced in times of rapid and consistent growth and periods of rapid productivity. Generally the state was associated with sustained activity, lots of energy, progress and success. Siberian winters were generally considered to be the antithesis of tidal waves when the world froze over and everything and everyone hibernated.

Cohort members repeatedly spoke of the inability to know where to start and the lack of clarity as to how to proceed, or how to go forward. These winters were often characterised by the withdrawal of project funding, redundancy, and career transitions. In this state, members described feelings of vacancy and depression associated with the stalling, redirection, or cancellation of intervention cycles. It is important to recognise that the state can be quite devastating, affecting not only the research as well as the researcher themselves with feelings of depression, inadequacy, and failure.

One member found the Siberian winters “character building” while another suggested they can be camouflaged but for what good purpose he did not know while yet another described the state as feeling “removed from the situation and ostracized and left out in the cold.”

The tidal waves and Siberian winters metaphor became part of the lexicon of the cohort becoming a shorthand description of state that was either going very well or very badly. Each member of the cohort appeared to relate to the metaphor whilst having their own unique interpretation of it as it related to their personal circumstances.

Most importantly, these metaphors provided a framework for making sense of a common experience. Accepting the possibility, indeed the strong likelihood of both

states during an AR project, allows for the possibility to anticipate their appearance, to have strategies in place but, more importantly, to understand this as part of the AR journey. Adopting this view encourages the recognition that AR does not actually stop even in the deepest winter but that it is all just part of the journey and the stopping and starting points are almost arbitrary.

114 **How BARC differs from AR and the importance of a cohort as an element of the network**

The model shown in Figure 4 shows the working relationship of actionable knowledge (as personified by BARC), the organizations and the university. It is probably accurate to say that the BARC has, for the most part, not managed to integrate its activities either in the university or the organizations. It remains in a strange limbo between the intellectual and practical aspects of AR. This is not necessarily an indication of failure but of the domain in which such a group must necessarily operate.

The BARC at Monash is unique in a number of ways. It is unlike learning networks reported in the literature that have an essentially commercial focus (Tell and Fawzi, 2001; Morris *et al.*, 2006; Horan, 2007). The continued involvement of graduates in the program is an indication of the continuing interest in the nature of the ideas that support business AR. Universities are amongst the few organizations that provide an environment for this essentially intellectual activity. A number of members in the cohort have reported on the unwillingness of their organization to be involved in reflection, particularly about the more theoretical aspects of the AR work. One cohort member remarked wryly, “Being involved in AR is positively career limiting!”

A university environment provides space where the dialogue and dialectic that underlies the hypothesis saving of the AR cycles, already described in this paper, to occur. The organizations, only out of hand, provide the environment in which those hypotheses can be tested. The experience of the Monash group is that these two activities are necessarily separate and that successful business AR requires a space for the network of action researchers to transact the dialectic elements of AR: hypothesis setting, theory debate and personal reflection. It also provides an environment where action researchers can be more open about their despair than they can be in the corporate environment.

The BARC at Monash has proved to be an extremely resilient organization. It is entering its ninth year of operation with strong support from its original members and a new and developing group of doctoral students. Only one member of the group is employed by the university and with his impending retirement, any links to Monash will disappear. The ongoing involvement of six members of the original cohort in

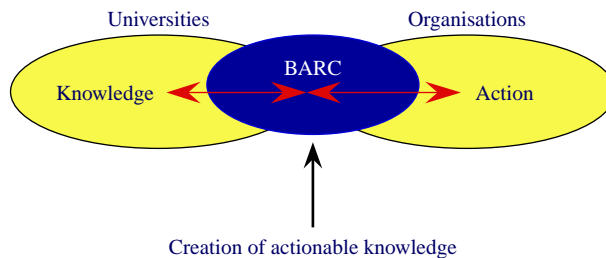


Figure 4.
BARC's working
relationship

addition to the five new doctoral students is an indication of the importance and power of the intellectual network that has been established. Despite the ongoing involvement of the dedicated group of action researchers and the expanding network that the cohort works in, the university has, by and large, ignored the activities of the cohort. At the time of writing, there was informal advice that the University of Bath group, CARP, was being wound up. With no formal succession planning for the leadership of the BARC within the university, many fear a similar fate will befall BARC.

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