Action Research:

The underlying approach of the
Understanding Communities Project (C1)
within the
Bushfire Cooperative Research Centre

Briefing Paper: July 2006

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Introduction

The Understanding Communities Project within the Bushfire CRC aims to provide a better understanding of the relationship between communities and their Fire Service providers. The project operates within an action research framework. It was decided to provide a review of (participatory) action research to allow a more explicit understanding of the underlying research process of the project by the fire services and other stakeholders (including other researchers). Stakeholders may in fact find the review useful in other contexts.

The themes are addressed in this review:

1. An overview of the activities in the Understanding Communities Project.
2. What is (Participatory) Action Research? and
3. How has (Participatory) Action Research been used in organisational development?

In section one, a short overview of the Understanding Communities Project is provided.

In section two, a general overview is provided of the Action Research paradigm and one of the related methodologies which come under its umbrella: Participatory Action Research (PAR). The foundations of the action research approach; the definitions provided by its proponents, including the principles which guide research practice; and the process by which the research is undertaken is summarised in this section.

In section three, a critique of participatory action research studies completed in the field of organisational development is provided. Secondly, a there is a rationale for the use of PAR as a suitable methodology for the Understanding Communities (C1) Project.

Section One

The Understanding Communities Project

The activities within the Understanding Communities Project are illustrated in Figure 1. The project seeks to build on available academic literature and other reports, consultations with service providers and other stakeholders and community surveys to develop an assessment of the nature and extent of bushfire risk in Australia, guidelines for assessing organisational needs and expectations in relation to bushfire risk, and a framework and methodology for defining community values, perceptions, needs and expectations in relation to bushfire risk.
Figure 1: Activity Flowchart for the Understanding Communities Project
Section Two

Action Research

Foundations

There are divergent opinions in the literature regarding the foundation beliefs or worldviews of action research. Perhaps this is because “the modern conceptions of participatory action research is a convergence and coalescence of theoretical and practical traditions of many fields – agriculture, social work, education, health, obstetrics, housing and community development, just to name a few” (McTaggart 1997a, p.26). Action research has also been described as a ‘family’ which includes a “whole range of approaches and practices, each grounded in different traditions in different philosophical and psychological assumptions, pursuing different political commitments” (Reason & Bradbury 2001a, p.xxxiv).

Authors may describe action research as a paradigm; a methodology; or in some cases, as a method or set of techniques. For example, the term ‘action research’ is sometimes used interchangeably with terms such as ‘action science’ or ‘action inquiry’. However, most agree that action science and action inquiry are specific kinds of action research (methodologies). Dick (1993, para.55), for example, believes action research to be a paradigm which subsumes several established methodologies including:

- Patton’s (1990) approach to evaluation,
- Checkland’s (1981) soft systems analysis,
- Argyris’ (1985) action science,

Each of these methodologies draws on a number of methods for information collection and interpretation (refer to Figure 1.).

![Figure 2](image)

**Figure 2.** Within each paradigm of research are several methodologies, each drawing on a number of methods for data collection and interpretation (Dick, 1993, para.55)

Reason and Bradbury (2001b) provide an extended account of their own worldview of action research. They write that the characteristics of action research are grounded in a *participatory* worldview, and therefore, it is not merely a methodology. This participatory paradigm is a move away from the empirical positivist worldview into a “science of experiential qualities” (p.4). However, the paradigm retains the positivist argument that there is a ‘reality’ awaiting discovery.
The paradigm also draws on the constructionist perspective in acknowledging that as soon as we attempt to understand and articulate this ‘reality’ we enter a world of human language and cultural expression where multiple interpretations are possible. The authors describe the participatory worldview as being “systemic, holistic, relational, feminine and experiential” (p.6). However, its defining characteristic is that it is participatory. A participatory worldview places people and communities (including researchers) as part of their world, while the traditional positivist worldview sees science and the researcher as separate from everyday life, in a world of separate objects. McNiff and Whitehead (2002) state that in action research, no distinction is made between who is a researcher and who is a practitioner, all are participants in the process. Researchers do research on themselves in company with other people. This contrasts sharply with the positivist view that researchers do research on other people. If the circumstances of research demands responsiveness, flexibility and action; then action research is an apt choice of methodology (Dick 1993).

Principles for Action Research Practice

Just as there is little consensus on the epistemology of action research, a widely accepted definition of action research is also difficult to identify. There appears to be no one ‘right’ definition for action research, just as there is no one right way of ‘doing’ action research. Whyte (1991, p.8) states that action research is for people who: “want their research to lead to social progress and yet do not want to give up claims to scientific legitimacy”. This is similar to an earlier definition provided by Chein, Cook & Harding (1948, p.43) who describe the field of action research as one

… which developed to satisfy the needs of the socio-political individual who recognises that, in science, he can find the most reliable guide to effective action, and the needs of the scientist who wants his labours to be of maximal social utility as well as of theoretical significance.

In these definitions, action research has two clear qualities: a claim to be scientific; and to have a practical focus on producing a positive change in society. McKernan (1996 cited in Ladkin 2004, p.5) takes this definition further by defining several other aspects of action research he believes to be essential for understanding its use. He states:

… in a given problem area, where one wishes to improve practice or personal understanding, inquiry is carried out by practitioners, first to clearly define the problem, second, to specify a plan of action, including the testing of hypotheses by application of action to the problem. Evaluation is then undertaken to monitor and establish the effectiveness of the action taken. Finally, participants reflect upon, explain developments and communicate these results to the community of action researchers. Action research is the systematic self reflective scientific inquiry by practitioners to improve practice.
As previously stated, the inclusion of people within the studied community or organisation as participants in the research process is distinct from conventional scientific research paradigm. Action research is said to be grounded in the belief that research with human beings should be participative and democratic. As such, many action researchers believe that ‘participation’ is a vital ingredient of action research. Further discussion on ‘participation’ is given in the next sub-section.

In an attempt at obtaining a common understanding amongst action researchers, a working definition of the approach (Table 1.) was created by participants at an action research symposium in Brisbane in 1989.

Table 1. Working definition of action research (Altrichter et al. 1991, p.8, emphasis in original)

| If yours is a situation in which                                                                                                               | And yours is a situation in which there is increasingly                                                                                   |
|---|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| • People reflect and improve (or develop) their own work and their own situations                                                            | • Data gathering by participants themselves (or with the help of others) in relation to their own questions                                  |
| • by tightly interlinking their reflection and action                                                                                         | • Participation (in problem-posing and in answering questions) in decision-making                                                            |
| • 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 | • 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. | • Reflecting which supports the idea of the “(self)reflective practitioner”                                                                  |

*then* Yours is a situation in which ACTION RESEARCH is occurring

The Research Process

The social psychologist Kurt Lewin is variously described as the ‘pioneer’, ‘inventor’, or ‘father’ of the term *action research*. In 1946, Lewin conceptualised action research as a cyclic process composed of planning, action, observing and evaluating or reflecting on the result of the action. Wadsworth (1998) provides a slightly modified version of this cyclical research process (refer to Figure 2), beginning with reflection on a problem; raising a question; taking action to resolve it;
evaluating the success of the action; and if not satisfied, modifying the action and trying again. The new action differs from the old action as each cycle further refines the questions asked and the methods used to investigate the research question.

Thus, action research differs from conventional models of pure research (positivism) in which proceeds from point A to point B along a straight line - commencing with a hypothesis and proceeding to a conclusion which may then be published in a journal (refer to Figure 3).

Given the complexity of real social situations (outside the laboratory), Lewin recognised the need for flexibility and responsiveness in social research as it is never possible to anticipate everything that needs to be done. McTaggart (1997b) explains that the cyclic nature of the action research process provides for overlapping of action and reflection to allow for changes in plans for action as people learn from their own experiences.

The iterative nature of action research is integral to the Understanding Communities Project (C1). As researchers interact with stakeholders and members of the broader community clarity of the process develops with each activity undertaken within the project.

**Participatory Action Research (PAR)**

Chein et al. (1948) state that participatory action research grew out of a weakness observed in traditional research, where understanding a problem does not always lead to action toward a solution. According to these authors, often the main difficulty in achieving action will stem from insufficient involvement of the stakeholder community from the beginning of the research process.
A widely held belief is that people will support what they have helped to create. The wider pros and cons of participation in research are well documented in the wider participatory research literature and as such, will not be reviewed in detail here.

As previously stated, some authors believe that ‘participation’ is a vital ingredient of action research and as such, see no need to add the word ‘participatory’ to the term ‘action research’. However, some have also noted that there is sufficient ‘action research’ taking place that does not emphasise the need for participation, to warrant explicating the ‘participatory’ aspects. For example, French and Bell (1999) state that “almost all authors stress the collaborative nature of action research” (p.135); and collaboration amongst scientists, practitioners and laypersons is often “a component of action research” (p.133). McTaggart (1997a, p.28) notes that the addition of the term ‘participatory’ to action research is necessary to distinguish “authentic action research from the miscellaneous array of research types that fall under the descriptor ‘action research’”. These ‘weak’ or ‘corrupted’ versions of ‘participation’ in research efforts which claim the name ‘action research’ can create confusion about the nature of PAR.

The multiple levels of participation are clearly demonstrated in Arnstein’s (1969) ‘Ladder of Citizen Participation’. To Arnstein, the nature of ‘participation’ was seen as a continuum, ranging from ‘manipulation’ (or non-participation); through to ‘token’ involvement; to ultimately, ‘citizen control’ - whereby stakeholders become partners in the project and assume responsibility for its management.

Participatory action researchers, however, believe that ‘citizen control’ in participation is the only level of authentic participation. Participation shouldn’t be seen merely as input into a project, but as an “underlining operational principle which should underpin all activities” (UNDP, 1997). According to Whyte (1991), PAR implies even greater participation and collaboration than classical action research does. Participation means ownership in the production of knowledge/information and improvement of practice and should be intrinsic to a project's development and not simply used from time to time to provoke interest from potential beneficiaries. Participants are considered to be co-researchers whose insider ‘local knowledge’ is just as necessary for valid scientific sense-making as the outsider researcher’s technical expertise and abstract general knowledge. According to Bartunek (1993), this is one feature of PAR which distinguishes from other approaches to action research. Essentially participatory action research is research which involves all relevant parties in actively examining together current action in order to improve it (Wadsworth 1998). Wadsworth (2001, p.421) sees the role of the researcher as a ‘facilitator of inquiry’, who aims to “divine for and assist the maximum energetic self-pursuit of the questions and answers by the largest number of people possible”.

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PAR has been used to provide poor or disadvantaged people with a voice in making decisions and creating governing policies in their community. PAR has also been used as a strategy for innovation and change in organisations by involving staff in critical organisational change. This also results in the education, development of consciousness, and mobilisation for action, of organisational members (Sarri & Sarri 1992).

Rajesh Tandon (1988, cited in McTaggart 1997a, p.29) identified several determinants of ‘authentic’ participation in research:

- people’s role in setting the agenda of the inquiry;
- people’s participation in the data collection and analysis; and
- people’s control over the use of outcomes and the whole process.

Reason (1988) emphasises the following criteria for participation-oriented research:

- the degree of involvement on the part of the participant must be open to negotiation and change;
- everyone should contribute to the creative thinking that is a part of the research process; and
- the forms of cooperation must aim toward being genuinely cooperation oriented.

However, Karlson (1991) states that participation in all stages of the research does not mean that participants must have the same type of expertise as the researchers; nor must individual participants take part in all stages of the research. They could, for example, enter when the project is being formulated and leave around the analysis or communication stage. Karlson also emphasises that the ultimate responsibility for the validity and rigour of a PAR project falls on the researcher. The Understanding Communities Project sees this participation by stakeholders in the design and process of the research activities as essential. Stakeholders include all parts of the fire service from volunteers to paid employees, rural fire services to urban fire services, as well as community members and local governments. From the inception of the project fire service personnel have been consulted in the choice of issues to be investigated, design of research activities, interpretation of results, and have taken on the responsibility of using the information generated from the research in their work environments. Inevitably, community members also become involved because are a major stakeholder in fire issues.
An Issue of Rigour and Validity in Action Research

Apart from the usual qualitative versus quantitative debate regarding the issue of research validity and rigour, participatory action research has an additional issue which must be clarified as part of any research reporting. Whereas traditional research methodologies advise the researcher to be as ‘detached’ as possible to ensure objectivity, the action researcher sees him or herself as part of the research frame. This is viewed as essential to the gaining of engaged understanding. So an important aspect of the research framework will be the researchers’ biases and constructions of experiences (Ladkin 2004). Action researchers do not perceive this to be a ‘contaminating’ process because an important part of the research process is a commitment to unearth those biases and assumptions that influence the researcher’s sense-making capacity through constant reflection. While it is recognised that it is virtually impossible to unearth all of our underlying assumptions, action researchers do undertake a commitment to rigorously question, examine and reduce one’s own blindness to those biases.

The issue of validity being applicable to action research has been questioned by some authors. Levin and Greenwood (2001) argue that the validity of action research knowledge outputs should be measured according to its workability, that is, whether the actions that arise from it solve problems and increase participants control over their own situation. Wolcott (1990) has argued for dismissing validity altogether, precisely because the arguments for it are inextricably linked to the ideals of positivism. Bradbury and Reason (2001, p.447) argue for shifting the dialogue about validity “from a concern about idealist questions in search of ‘Truth’ to concern for engagement, dialogue, pragmatic outcomes and an emergent, reflexive sense of what is important”. Hence, these authors draw attention to the important ‘choice points’ that action researchers address (refer to Box 1. below). Action researchers make their choices clear to the research community in order to promote further conversation on the issues of validity and to promote high quality action research.

Box 1. Issues as Choice-Points and Questions for Quality in Action Research (Bradbury & Reason 2001, p.454)

<table>
<thead>
<tr>
<th>Is the action research:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicit in developing a praxis of relational-participation?</td>
</tr>
<tr>
<td>Guided by reflexive concern for practical outcomes?</td>
</tr>
<tr>
<td>Inclusive of plurality of knowing?</td>
</tr>
<tr>
<td>o Ensuring conceptual-theoretical integrity?</td>
</tr>
<tr>
<td>o Embracing ways of knowing beyond the intellect?</td>
</tr>
<tr>
<td>o Intentionally choosing appropriate research methods?</td>
</tr>
<tr>
<td>Worthy of the term significant?</td>
</tr>
<tr>
<td>Emerging towards a new and enduring infrastructure?</td>
</tr>
</tbody>
</table>
Validation or quality research in PAR is also accomplished in ways common to those frequently used in interpretive methodologies. This includes: the use of triangulation and multiple methods; by establishing trust and credibility among participants and informants; through the establishment of an ‘audit trail’ of data and interpretations; and by using a ‘critical community’ to test the evidence and arguments advanced in the reporting of the study (McTaggart 1997b).

Mixing methods (including qualitative and quantitative methods) is seen as desirable by pragmatists (who consider ‘what works’ to be more desirable than a search for ‘truth’ (Tashakkori & Teddlie 1998)). Action research has been put forward by Levin and Greenwood (2001) as a way to deliver on the claims of pragmatism because action research focuses on solving real-life problems.
Section Three

Undertaking PAR in Organisations: Methods

The need for organisations to stay competitive and/or function effectively in an environment characterised by constantly changing social and economic conditions has frequently prompted managers to seek more efficient ways of operating. When seeking solutions to issues of concern, it is now widely understood and accepted that the ‘insider’ knowledge and skills of employees or workers from all levels of an organisation should be consulted. When consultation does not entail ‘authentic’ participation, if resources and knowledge are not shared with all workers, this can result in a reinforcement of the existing hierarchical structure, feelings of alienation, lack of cooperation and even the falsification of data (Argyris 1968, cited in Pasmore & Friedlander 1982, p.343).

Action research projects within organisations require workers to be active participants of any process which affects their work environment.

PAR projects within organisations can frequently be ongoing for many years (e.g. Wadsworth & Epstein’s (1998) eight year study of an acute mental health service). Yet exemplary accounts of PAR projects undertaken in organisations which clearly outline methodology and findings are not common in the literature. The need to develop PAR design and methods was explicated by Karlsen (1991) over a decade ago. Karlsen was concerned about this for three reasons:

(1) It is important for recruitment and for bringing new research workers into the field. Good knowledge and methods imbue confidence;

(2) In this field, there is a great deal of undocumented knowledge and methods among researchers and in the research milieu; and

(3) The methods represent a special challenge because they must contribute to driving the action process forward at the same time that they must supply systematic data as a base for working up the research aspect of the project (1991, p.157).

These concerns are yet to be fully addressed. McTaggart is an author of a multitude of publications advocating PAR, articulating the issues and providing guidelines for practice. Yet in 1999, McTaggart admitted to having “never written a comprehensive narrative about a participatory action research ‘project’” (p.497-498). This scarcity of exemplary publications is said to occur because the focus of such projects is on practice and bringing about change, rather than producing and reporting on research findings. McTaggart does recognise that some publication is necessary to ensure claims are ‘public and contestable’. In addition, he believes that the most helpful model to use to learn about suitable PAR methods is through comprehensively studying a similar case of social action to the one you are about to engage in - a case informed by the principles of participatory action research. Thus, the circumstances of each individual project (the need to bring
about change); and the principles of PAR, guides the choice of method. This is believed to be more important than “a slavish adherence to a technique” (p.509). The Lewinian ‘spiral’ is not so much a ‘method’ of action research as a summation of the common experiences of action researchers.

The more highly developed methodology of *action science* developed by Chris Argyris is said to be a conceptual model and a process - simultaneously a theory of social systems and an intervention method or technique (Dick 1993). PAR, however, is said to be a more generic methodology. A generic model for action research for organisational development was described by French in 1969 (refer to Figure 4.). French describes his model as being iterative and cyclical:

![An Action Research Model for Organisation Development (French 1969, p.26)](image)

The key aspects of the model are diagnosis, data gathering, feedback to the client group, data discussion and work by the client group, action planning, and action. The sequence tends to be cyclical with the focus on new or advanced problems as the client group learns to work more effectively together (p.26).

Without a specific methodology of its own, PAR often seems to be used in conjunction with other conceptual frameworks. The lack of an explicit conceptual framework and methodology for PAR
and of exemplary PAR accounts in the literature, does make it more difficult for other researchers to understand the practice of PAR in organisations: to choose the appropriate methods (data gathering and analysis techniques) for research and action when starting their own research project; and to critique the methods chosen by others. On the other hand, it allows for a greater degree of flexibility and choice.

In her practice as a PAR facilitator, Wadsworth (2001, p.427) has used an extensive range of research methods and techniques within organisations, including:

- community development,
- group work,
- evaluation logic,
- theory-building,
- naturalistic testing,
- interviewing,
- ethnography,
- case studies,
- brainstorming,
- questionnaires,
- focus group-type discussions,
- dialogue,
- co-counselling-type discussions,
- co-counselling-type listening techniques,
- small business management,
- scribe/writing and records-keeping,
- storytelling,
- strategic questioning,
- systems thinking and reflexivity.

In addition, resources to aid reflection included ‘time and space’, journaling and trusted ‘critical friends’. For Wadsworth, the publication of an account of the research also rested on meticulous note-taking in open view of all participants.

From the array of methods available to social science researchers, many are suitable for action research studies. However, in keeping with the participatory nature of PAR, techniques that require a separation of researcher and researched (e.g. when experimental subjects are kept ignorant of the purpose of the study) must necessarily be excluded (Sohng 1995). In addition, methods that require technical knowledge and material resources which are not available to the participants are also excluded. The Understanding Communities Project uses a mixed methods approach consistent with the philosophy outlined above. The fire service made it clear that surveys of members would not be well received because of the number of surveys undertaken previously. To date, the project has used: surveys of communities; group meetings; focus groups; individual interviews, historical reports; workshops and document analysis.
Conclusion: Suitability of PAR for the Understanding communities Project (C1)

The Understanding Communities Project in essence is about contributing to organisational development by using a participatory approach to understanding the organisational information needs of fire services in terms of the social and community context in which they operate. This PAR approach to research is similar to organisational development in that they are both “variants of applied behavioural science; they are both action oriented; they are both data based; they both call for close collaboration between insider and outsider; and they are both problem-solving social interventions” (French & Bell 1999, p.140).

In addition, the generic nature of the PAR methodology allows for flexibility in the choice of data gathering and analysis methods. Due to previous over-use of survey questionnaires in studies involving fire service personnel, there is resistance to the use of this data gathering method in the current study. The flexibility of PAR allows for alternate methods of data collection. It is also possible that there will be barriers or hurdles encountered in research within an organisation. The cyclic nature of PAR allows for responsiveness to these emerging factors during the course of the Understanding Communities Project.
References


