Chapter 1 The arguments, structure and background of my thesis

Section 1.1 Introduction

Reporting the processes and outcomes of action research seems more complex than my experience with other forms of research. This appears to be because the processes and outcomes relate as much to changes in the research practice of the practitioner as to changes in the matter being researched.

In this first chapter of my thesis I present the two basic arguments that emerged from my action research and which relate to the matter being researched and my own practice.

This is not unlike the issue raised by Lomax (1994) and Lomax and Parker (1995) in relation to the assessment of action research graduate theses in the field of education. They refer to the issue as "... at the intra-subjective level where the act of creating a representation challenges our understanding of the practice it represents and at the inter-subjective level where the sharing of meaning in a representation that is made public enables others to challenge that meaning" (Lomax and Parker 1995 p301).

Perry and Zuber-Skerritt (1992) make a similar distinction to these two contexts in their writing about action research in graduate management research programs. They distinguish between a thesis action research project and a core action research project.
Their separation of a core and a thesis action research project approach in graduate research programs is supported by Carr (1996).

In a similar way there are two streams in my action research. Stream I, like their thesis action research project, is my action researching my practice as an extension officer introducing experiential learning to pastoralist farmers as a process for helping them better manage their own affairs. In this stream, I conducted my action research in conjunction with my three academic supervisors, my DPI project team and the pastoralists. Stream II is the action researching I did in practice with pastoralist groups working on their thematic concerns of wool marketing and current local issues (CLIs). My Stream II is like the core action research project referred to by Perry and Zuber-Skerritt (1992). Whether perceived as streams or projects, both present challenges in terms of reporting style.

In agricultural science practice it is not usual to personalise reports of research, particularly research theses, even where they involve qualitative phenomenalist research about social practices and extension in agriculture. (See for example Gamble et al, 1995; Wissemann, 1993; and Roberts, 1989). An impersonal, objective approach is understandable where researchers seek to observe and report understanding or change from a position external to the system.

Action research demands a greater emphasis on the subjective however because it includes reflection on personal practice to understand and improve it (Dick 1995; Henderson 1995; Bawden 1990; Carr and Kemmis 1986). Others have written about
researchers and their research in a way that recognises the linkage between them. Morgan (1983b p405) for instance submits that, “The position I have adopted hinges on the argument that the process of knowing [researching] involves a process of forming and transforming, and that in knowing our world, we also form and transform ourselves.” Gray (1989 p283) refers to this as well, arguing that, “Research is a process of self-engagement, for researchers project their own identities and conflicts into their professional work.” Similarly, Frost (1989) expresses his interpretation of his activities as “I do know that most of what I have written and published is an authentic representation of what I feel and believe is me ...” Other authors who recognise the inextricable links between a researcher and their research are Wolfe and Kolb (1991). Their reference is to the convergence of career and personal development. Morgan, Gray, Frost and Wolfe and Kolb provide understanding of the personalised reporting of research. I have chosen the same path as I recognise that my personality as well as my personal reflections have contributed to the direction and shaping of my research. I have been both subject and object of my own research.

Section 1.2 The two arguments of my thesis

There are two arguments central to my thesis (Arguments I and II). The first emerges from the learning outcomes that I have derived about experiential learning as a concept, and its practical role in what has been termed a critical learning system (Bawden 1995). Argument I, is that **experiential learning provides a process for developing learning outcomes in response to a) the thematic concerns of participants, and b) about the**
difficulties that arise in group functioning and the facilitator’s role. Among the key learning outcomes that have contributed to this argument are:

1. That my initial interpretation of the concept of experiential limited the extent to which the learning expectations of group members were met. Reflecting on this issue resulted in my evolving an increasingly sophisticated interpretation of experiential learning.

2. That even with my initially limited interpretation of experiential learning, its use by pastoralists led to them reporting higher level learning outcomes for some situations.

3. That there are theories about levels of learning and cognitive development that are useful in informing experiential practice.

4. That action research, experiential learning and action learning are different names for similar phenomena depending on the perspective. As well I learnt that action research as connected cycles of experiential learning represents a more sophisticated learning model than the ‘questioning model’ of action learning as it is usually described.

5. That on occasions the quality of the relationships within our learning groups influenced the validity of the information exchanged and the level of participation by pastoralists. For that reason relationships warrant attention as an important focus for the process of experiential learning in group situations.

6. That as a facilitator I should model experiential learning by going through the same learning processes as the pastoralists and making my learning processes explicit to the group.
Items 1, 2, 3, 4 and 6 led to my proposing a first addition to Bawden’s (1995) model of a critical learning system. It is that as the facilitator of experiential learning, I benefit from having a specific problematic situation to deal with explicitly in the group setting using experiential learning processes. As well, items 4 and 5 led to my proposed second addition to Bawden’s (1995) model. It is that we should experientially learn in the group situation about our relationships.

My second argument (Argument II) relates to my facilitation of pastoralists’ experiential learning. I argue that my improved facilitation practice in agricultural extension has derived from personal and collaborative reflection. This argument has contemporary meaning because currently agricultural extension officers such as myself are being encouraged by reviewers\(^1\) of agricultural extension activities and other social research and extension professionals\(^2\), to improve our extension practice.

The suggestion is for us to do this through our facilitation of farmers’ learning by applying adult learning principles and participative practices and reflecting to learn about how we each do this. However, the implementation of the suggestion becomes complex in relation to facilitating experiential learning, as it seems that such items as pastoralists’ previous experience helps explain why they do or don’t take action. In the same, way previous experience helps explain whether I do or don’t take action as the facilitator of the experiential learning of the pastoralists.

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\(^1\) Two Australian examples are Russell et al (1989) and Wythes et al (1990).
Most suggestions being made for the improvement of extension officers’ practice refer to the development of skills as adult educators. However, applying adult learning principles in a way that is participative and collaborative relies on congruency of theories of action\(^3\) of these two issues (i.e. participation and collaboration).

Personally, I acquired a more congruent position of facilitation that was participative and collaborative through action researching my practice of facilitating experiential learning with pastoralists and by reflecting on the emergent outcomes for me as the facilitator. Action science\(^4\) provided the method of reflecting to assess my extension behaviour as a facilitator, helping me to understand why increased congruency was necessary for changed extension practice.

These two arguments form the foundation of my thesis. They represent a significant development in my understanding of the practice of facilitation of experiential learning in agricultural extension situations.

\(^3\) Theories of action are sets of complexly related propositions of personal behaviour. The form each proposition takes is - in situation z, to achieve consequence c, do action a (Argyris et al 1985 explain this from earlier work by Argyris and Schon). They propose two kinds of theories of action - espoused theories and theories-in-use. Espoused theories are what an individual claims to follow. Theories-in-use are what can be inferred from an individual’s action. Inconsistency or incongruency between these two action theories produces mismatches in behaviour. Recognising incongruency can highlight ways of improving practice.

\(^4\) Action science is described by Argyris et al (1985) as “... a collaborative process of critical inquiry into problems of social practice in a learning context. The core feature of this context is that it is expressly designed to foster learning about one’s practice and about alternative ways of constructing it.” Argyris in another text says that the ultimate aim of action science is to provide valid information about intentions and reasons for action. “The theory-of-action approach posits the existence of a behavioral world created by the parties to an interaction and identifies the characteristics of behavioral worlds that may inhibit or encourage valid inquiry” (Argyris and Schon 1996 p50).
Section 1.3 The structure of the thesis

Seven chapters follow this introductory chapter. In the remainder of this chapter I present a brief description of the agricultural extension situation in which the project was conducted. This provides background for the thesis and leads to the presentation, in the last section, of the central notion that led to my undertaking the project.

In Chapter 2 I discuss my methodology and methods. I begin by presenting the ontology that framed my position. This provides a foundation for describing and justifying the methodology chosen with respect to the rigour of the research process and interpretation of data for learning outcomes. I then discuss my reasons for using qualitative research. The chapter concludes with a description of the methods used.

In Chapter 3 I present a summary of the events of the project. This is done in a series of tables that provide a time-sequence of events in the project. The tables also show the interplay between the events and issues of the project and the subject matter of the literature informing my practice at the time. It is this interplay that led to the emergence of the initial learning outcomes that provide the foundation of Arguments I and II.

Chapter 4 contains reflective observations on literature that relates to Argument I. In it I refer to the link between learning how to learn and self-directedness of learning, levels of learning, achieving higher level learning, reflection in learning and action learning.
Chapters 5 and 7 contain my main contributions to knowledge relating to practice as an agricultural extension officer. In each chapter I begin by presenting the learning outcomes made in relation to the argument that is the focus of the chapter (either Argument I or II). Then I present observations from field work that support or contrast with the argument. In so doing I combine my earlier interpretation of the literature with additional literature and my field observations to develop the case for the argument presented in the chapter. The structure of these two chapters illustrates the interplay between literature (theory) and field work (practice). It is this interplay that provides additional rigour in interpretation.

Chapter 5 refers to Argument I and I begin with a summary of learning outcomes related to understanding experiential learning and its role in a critical learning system. I then summarise the dialectical material from my field work that contributes to Argument I. This includes literature that is both supportive and critical of my position. I conclude with modifications to the model of a critical learning system I would now use in agricultural extension practice.

Chapter 6 contains reflective observations on literature relevant to Argument II. In it I refer to the impact of facilitation on learning in crisis situations, the level of awareness of how learning is occurring, creating transparency in learning situations and congruency of action theories of facilitation.

The structure of Chapter 7 is similar to that of Chapter 5. It begins with a summary of learning outcomes relating to my role as an agricultural extension officer facilitating
experiential learning with pastoralist farmers. I then summarise the dialectical material from field work that contributed to Argument II. This includes literature that supports, or is critical of Argument II. I conclude by using a process of interpretation of Action Science Model I and II values (Dick and Dalmau 1992) to demonstrate the reflective practice I am suggesting for my future agricultural extension practice.

In Chapter 8 I cautiously examine the possibility of expanding my arguments. I consider expansion from my own practice of agricultural extension to the broader field of agricultural extension in rangeland pastoral situations and possibly to other extension contexts.

Section 1.4 The agricultural extension situation of central west Queensland

In 1990 Wythes, Woods and Gleeson reviewed the extension policy of the Department of Primary Industry (DPI) in Queensland. They state *inter alia* that extension was “...... directed principally to offering advice to individual producers, to assist them to develop their properties and to adopt technology flowing from research...”. They also said that the “... the advice was principally technology-based”(p2).

In delivering their services in these two contexts, extension officers acted in two capacities. In the first they acted as technical advisers responding to particular farm-based development issues, especially those recognised by farmers themselves. In the second they acted to promulgate research-based technologies, extending the results of
scientific inquiry into farmers' situations. In these two roles extension officers were often encouraged to act as sales or marketing personnel and in support of this, the DPI conducted workshops for staff to encourage them to adopt a marketing approach (Whyte 1988). In such situations, extension officers were acting in expert/technologist roles. Suggested changes, such as the move to marketing, have come about as DPI staff have searched for ways to overcome 'barriers' to the adoption of new technological practices.

The gains from extension framed in the above way have been in production and productivity (Wythes et al 1990), and this is a factor recognised by Bawden (1989) in his description of phases of Australian agriculture. The "Wythes" policy review suggested a change in extension approach to include the skilling of farmers in problem identification and resolution, through education and training. The policy review did not deny that some extension practitioners were already practising this type of extension, but observed that it was not official policy. In suggesting the change they refer to the emerging attention to the issue of sustainable farming where they recognise that individual farmers are best able to respond. As an example of this, they cited the Landcare movement where groups of farmers were being encouraged to act together to improve the quality of the environment in which they were doing their farming.

In response to the policy review, the DPI produced a strategy for future extension action in agriculture. The DPI Extension Strategy Statement (ESS) (Anon 1992) refers to extension with strategic direction and community involvement to provide farmers with the tools for self-management and self-reliance. "QDPI extension is about using
communication and adult education to help agricultural industries and others to identify where changes need to be made and to help them make those changes. Its emphasis is on developing skills and knowledge in people” (Anon 1992 p2).

The DPI’s call to provide this type of extension demonstrates a significant change in focus from that of technology transfer alone. The shift towards farmer self-management and self-reliance through communication and education, is consistent with a recognition by the original reviewers and by other authors (e.g. Vanclay and Lawrence 1995) that previous extension approaches needed changing to accommodate the more complex issues associated with more sustainable practices.

The emphasis of the ESS on “developing skills and knowledge in people” (Anon 1992) added a dimension of social science to the extension arena which had largely been ignored previously in Australia. The inclusion of the perspectives and knowledge of farmers in extension, in research and in planning, and in linking research and extension with the people in the system, finds support from other writers. These include Shulman (1993), Campbell and Junor (1992), Russell and Ison (1991) and Roling and Engel (1991). The proposed developments in DPI extension would focus on helping producers further develop the capability of making informed choices. The aim of farmer founded choice is akin to the recognition by Carr and Kemmis (1986) that people face ‘subjective’ constraints that could change if they viewed the world differently.
A comparison of three DPI initiated extension conferences after 1990 show the progress of the change in extension in Queensland. A basic description of the focus of each conference and the target audience is in Table 1.1.

Table 1.1 The focus and target audience of three DPI extension conferences after 1990

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<td>Conducted by Queensland DPI for DPI staff.</td>
<td>Conducted by Queensland DPI staff with a few other invited speakers.</td>
<td>Hosted by DPI and including a range of invited and submitted material from other countries and service providers other than agricultural extension.</td>
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<tr>
<td>Focus: Communication - sharing information and ideas among extension officers on extension methodology, systems and theory (Jorgensen 1990).</td>
<td>Focus: Equip, encourage and enthuse extension officers to manage the provision of an effective client service in DPI's changing role and to provide guidance through the 1990s (Fell 1993).</td>
<td>Focus: Learning from each other as a shift takes place from the push of technology to that of facilitating people to drive their own development (Coutts 1993).</td>
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These conference overviews highlight the move of agricultural extension from technology transfer to the facilitation of activities, with farmers choosing their own development path. These strategies provide for the progressive development of farmer self-reliance and informed decision-making. The strategies planned by DPI for extension in Queensland, embrace central west Queensland, the site of my project activities. In this way, my project of facilitating experiential learning with pastoralists aligned with the direction provided by the Extension Strategy Statement.
Section 1.5 The background to my project

In this section I briefly outline what my project notion is and my reasoning in arriving at that notion. I have not referred to literature in presenting my reasoning. Instead I have presented my reasoning in the knowledge that the remainder of the thesis demonstrates the notion in action with links to the literature and identifies needed changes to it.

The background of my project was my notion that the skills of experiential learning could markedly improve the capabilities of pastoralists becoming their own improvers of situations. They would thus increase their level of self-reliance as informed decision makers. My notion was also that, by facilitating experiential learning with pastoralists, I would be able to experientially learn how to improve my practice of facilitating such learning with pastoralists.

Experiential learning is particularly relevant here as many situations faced by pastoralist farmers in central west Queensland are problematic in that they have no known answers and any improvement must provide for property specific management features. One perspective suggests that farmer participation in planned group extension activities such as Landcare will provide skills in problem resolution. However, the assumption here is that clients will have the freedom in time, finance availability, management activities,

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5 In the rangeland of central west Queensland farms are referred to as 'properties' or 'stations', for example - sheep properties or sheep stations. Farmers in the rangeland of central west Queensland refer to themselves as pastoralists or graziers as their farming practice is to graze sheep or cattle in pastoral situations. I will use the term pastoralists in this document.

6 This recognises the different financial, practical and personal situations that exist and that require flexibility for the achievement of any situation improvement.
as well as family and social commitments, to become involved in the issues for which they don’t currently have solutions.

What may happen is that limited resources (time, labour, income etc) together with commitments (family, social, living etc) may make it less easy for pastoralists to commit themselves to any but the most vital issues. Such issues are often crisis generated and relate to maintaining income or to opposing proposed restrictions to current farming practice. Other issues are emotionally driven.

Furthermore, formal situations may not address improvement in problematic situations that are farm or farmer specific. This may mean that only pastoralists who are comparatively resource-rich, could participate in current and future approaches aimed at better resource management. This would exacerbate social distinctions, as it would be only those involved who acquire skills in alternative thinking approaches developed in such formal situations.

A more systemic approach would be to focus group extension activities explicitly on the process of learning how to learn, as a complement to other extension approaches. In gaining these skills, pastoralists learn how they learn and think so that they can deal with issues as they arise. Such a way of learning from experience produces an increasingly critical approach to thinking and provides alternatives to existing ways of thinking about problematic situations.
Experiential learning would have particular relevance here as it involves learning through real problematic situations and is a process appropriate to both individuals and groups. As such it seemed suitable for use by pastoralists who often have to solve management problems without help from “experts”, while they (the pastoralists) do have access to other pastoralists experiencing similar situations. Moreover, experiential learning involves the individuals in the situation giving due attention to an appropriate process to identify assumptions in the situation and develop different perspectives for action. My notion therefore was that from experiential learning will come a foundation for pastoralists’ skills in critical thinking. Rather than defining ‘what’ pastoralists should think about an issue in any given circumstance, extension delivering experiential learning skills would expand ‘how’ they learn their way through it.

It was my notion in starting this work that through explicit attention to the process of how they learn, pastoralists would acquire skills to critically question their own ideas and actions. They would also question the approaches suggested to them by others. As well, because of the learning format used and its relationship to experience, they could act to alter situations for themselves and contribute to industry decision-making.

Finally, I believed that in the act of facilitating the development of learning processes by pastoralists, I would improve my own experiential capabilities. This, in turn, would help me be able to continually improve my abilities as a facilitator of the experiential learning of others - a self-augmenting system. Pastoralists’ problematic situations are complex and situation-specific and require flexibility as issues emerge. So too does my problematic situation of professional practice in extension.
Section 1.6 Summary

In this chapter I presented the two arguments central to my thesis. As well, I provided a structure of the thesis as a whole and a background to its focus. In Chapter 2 I present and justify my methodology and present my methods.
Chapter 2 Methodology and methods

In this chapter I recount my reasons for choosing the methodology of action research and the methods used.

Section 2.1 My methodology

Section 2.1.1 Determining a methodology

Dick (1995), Graziano and Raulin (1993), Patton (1990), Morgan (1983a) and Burrell and Morgan (1979) cite a range of research approaches or methodologies available for inquiry in social situations. Guba and Lincoln (1989) and Burrell and Morgan (1979) both provide frameworks for decision-making for the choice of a methodology. They each agree that surfacing ontological and epistemological assumptions are the primary steps in determining the choices available from which to select a methodology for use in inquiry.

In this connection, an ontology represents a particular view of reality held about the situation in question. The above authors suggest two main ontological possibilities useful in decision-making about methodologies in inquiry. The first is that there is one reality and it is observable by an inquirer who has little if any impact on the object being observed. The second is that reality consists of an individual’s mental constructions of the objects with which they engage, and that the engagement impacts on the observer and the situation being observed. While able to be considered polar
opposites these two possibilities can represent two points on a continuum of ontological assumptions, wherein intermediate positions related to specific situation are constructed by participants.

Whereas ontological assumptions concern the nature of reality, epistemology relates to how such assumptions can be known. The epistemology is the relationship assumed to be present between the knower and what is known or being sought to be known. It deals with assumptions about truth and non-truth. Burrell and Morgan (1979) suggest that the relationship can derive from accepting that knowledge can be either viewed as objectively knowable, or in contrast, only subjectively knowable. Guba and Lincoln (1989) support this suggestion. Their support is expressed as “... adherents of the constructivist paradigm ...[assert]... that it is impossible to separate the inquirer from the inquired into” (p88) while in the conventional paradigm “... adherents ...[assert]...that it is possible to maintain an objective ... posture ... with respect to the phenomenon being studied...” (p87) and that the inquirer’s values can be excluded. Burrell and Morgan (1979) and Guba and Lincoln (1989) agree that in social inquiry the subjective knowledge produces a subjective relationship between elements of the inquiry.

Kersten and Ison (1994) have referred to the benefit they gained from identifying their epistemology because of its influence on research design (methodology) and outcomes in their research in agricultural rangelands. They put their research into context by placing it within a constructivist epistemology.
Burrell and Morgan (1979) offer as a third dimension, human nature in identifying assumptions before reaching a position leading to suitable methodological choices. They suggest that there is an important distinction between the determination of human nature by outside forces and the notion that humans create their own environment.

Checkland (1985; 1991) presents an example of the application of this principle of surfacing assumptions for methodological choice in systems practice. He suggests a model in which the researcher uses a framework of ideas (F) to establish a methodology (M) to inquire into an area of application (A). His framework of ideas is inclusive of ontological and epistemological assumptions and he argues, along with Morgan (1983a) and Burrell and Morgan (1979), that researchers rarely identify their assumptions when making choices about methodology (Checkland 1991).

One who does identify his assumptions is Susman (1983 p107). He identifies the epistemological assumptions that he uses to produce knowledge about a system when researching, that is, he uses his assumptions to decide on a methodology. New (1995) is another who declares her ontological assumptions. She declares her own ontological position as the starting point to her argument when she calls for the declaration of ontological assumptions in the sociological aspects of environmental research.

However, while these are examples of researchers identifying their assumptions as they seek a methodology, there is a reported lack of attention to the assumptions of ontology and epistemology in sociology (Newby 1997). Newby refers to it as sociologists excluding themselves from the theories that they develop and relates it to the need for a
reflexive sociology that relates subject and object. An example of this exclusion in rural sociology is Bealer’s (1990) response to suggestions of the need for increased paradigmatic diversity in rural sociology (Falk and Zhao 1989) by suggesting attention first to ‘method, technique and methodology’. In doing so he thus places methodology before the ontological and epistemological assumptions that Guba and Lincoln (1989) and Burrell and Morgan (1979) suggest should come before methodological choices. Attention to ontological and epistemological assumptions leading to a choice of methodology seems to support the move sought by Harper (1991) away from methodological monism that occurs in rural sociology as is evidenced by Bealer’s response.

Oliga (1988) suggests that diverse methodological approaches in the field of systems study will come from exposing and exploring the methodological foundations of different approaches to inquiry. He argues (p90) that not exploring methodological foundations does not “... avoid methodological commitments: it only makes them uncritical and unreflexive”.

Oliga (1988) is supported by Chisholm’s (1990) reference to the contradictory elements of action research in settings of mainstream and anti-sexist action research in education. She suggests that “Some characteristic shortcomings of action research projects result from avoiding rather than confronting (these) contradictory elements [divergent methodological and political discourses].” Jackson (1982) had earlier referred to a similar issue in relation to action researching.
Jackson (1982) and Oliga (1988) both suggest that in the social sciences the need for a well understood foundation for choosing a methodology is crucial. Jackson (1982) posits, "We need to be more aware of our theoretical preconceptions and the way these affect attempts to change the ‘real-world’".

Melrose (1996) proposes a similar need in curriculum research in education and she emphasises identification of the philosophical paradigms underpinning the research to clarify what can be known and how it can be known. Oliga (1988) offers the work of Jackson and Keys (1984) and Banathy (1984) as valuable in presenting a contingency-theory perspective for methodological selection because of its focus on the contextual appropriateness for arriving at a methodology. In doing so he cautions about the temptation to "naturalise" the dimensions of such an approach.

Such a caution may well add weight to the inclusion of the fundamentals of ontology, epistemology and human nature as referred to by Burrell and Morgan (1979) and Guba and Lincoln (1989), when choosing a methodology. These three fundamentals can provide access to the context of the situation in a way that is less likely to lead to "naturalisation" of the dimensions of inquiry into unalterable monism in methodology.

With those comments in mind it is appropriate for me to state my own perspectives at this point as a means of helping to make clear the foundation for my own methodological choice.
In the work reported here I made the following assumptions. Ontologically I assumed, while not denying an external reality, that the reality of inquiring into facilitating experiential learning with pastoralists will be the product of our various consciousnesses. This means that each person’s interpretation of what is occurring will be the ‘reality’ of our situation for them.

Epistemologically I assumed that while some information acquisition can come from others it is only by experiencing the learning in person that valuable knowledge is generated at a personal level. At the start of my project I made this assumption explicitly about the learning of the pastoralists. Upon reflection now, I realise that it is also true of my learning through facilitating their experiential learning.

In relation to the issue of human nature, my assumptions are that some external features can have some impact on individuals. However, in the main, we are each able to create our own interpretation of our social environment. In holding this position, I assume that it is our interaction with our environment that provides us with the knowledge and data we need to interpret and create it.

On the basis of my assumptions about ontology, epistemology and human nature, I was able to identify the features of a methodology that suited my inquiry. It had to allow me to deal with a social situation in which we as individuals interpret for ourselves the meaning of the experiences that we are having. It would need to allow for participation so that shared interpretations could be developed. The methodology had also to take into account the fact that these interpretations would be emerging as more experience
accumulated and that experience would in turn determine the type of experience that followed. It would also need to provide ways of understanding how participants interpret and respond to their experiences. And finally, the methodology would need to provide ways of modifying the world or taking action in it.

In terms of the specifics of my researching the social system of facilitating experiential learning with pastoralists, any chosen methodology would need to accommodate:

a) the fact that individuals would be making their own interpretation of their experience of using experiential learning,

b) the emergence of new issues as experiences accumulated with these new issues contributing to what would happen as the project progressed,

c) ways for me to understand how pastoralists would be experientially learning and my facilitation of that for them, and

d) ways of taking action to modify behaviour in response to the knowledge gained through the experiences of learning.

Converting these items into features I required of a methodology for inquiring into the social system of my facilitating experiential learning with pastoralists, the features were:

* to provide opportunities in real life situations for pastoralists to experience experiential learning and my facilitation of it;

* to allow pastoralists to participate in framing and interpreting the experience of being facilitated in experiential learning, so that their participation contributed to their and my understanding of the situation;
* to interpret the experience that we each have for its “meaning”;
* to be responsive to that “meaning” so that it led to further experiences that would expand our understanding of my facilitation of experiential learning;
* to identify opportunities to alter facilitation through testing emerging assumptions;
* to support the emergence of issues and outcomes related to the social system of my facilitation of experiential learning with pastoralists; and
* to permit my continuous interaction with the literature during field work and write-up.

My choice of action research as the preferred approach to my work reflected the necessity to accommodate features. I return later in the chapter to address the use of action research in the project after first considering action research as a methodology.

**Section 2.1.2 Action research as a methodology**

Dick (1995) summarises his interpretation of the most effective research methodology as one that generates data and interpretations appropriate to a given context. Graziano and Raulin (1993) make a similar suggestion when referring to situations where the control of variables is impractical or unethical.

Action research is useful in ‘real’ concrete situations. It is useful where change and understanding is sought in a situation in which it is usually too difficult to control variables because the situation is concrete, complex and on-going (Dick 1995; Susman
1983). Action provides change and research provides understanding. Dick (1995) and Susman (1983), as well as Altrichter (1990), refer to the use of action research by practitioners, as opposed to researchers, to develop responses in complex situations that are uncontrollable in any conventional research sense.

The methodology of action research is a cyclic form of self-reflective inquiry. It is used in social situations by the participants, to improve their own practice and the understanding of their practice and the situation (Carr and Kemmis 1986). Winter’s (1996 p14) description of action research is similar and in his words “Action research ... refers to ways of investigating professional experience which link practice and the analysis of practice into a single productive and continuously developing sequence ...” Altrichter et al (1990) describe it as people reflecting upon and improving their practice by tightly interlinking their reflection and action. This is the ‘intrasubjective’ element of action researching referred to by Lomax and Parker (1995). Altrichter et al (1990) add that it includes making their experiences public to other people concerned by and interested in the particular practice and this is the ‘intersubjective’ element (Lomax and Parker 1995).

Dick (1995) refers to action research methodology as a cyclic progression from fuzzy questions through fuzzy methods to fuzzy answers to less fuzzy questions, methods and answers. The key elements are the cyclic acting and reflecting before acting again in a continuing response to learning outcomes from reflection. Action research provides confidence in outcome through the checking and refining of data and interpretations.
This key element of cyclic activity described above provides rigour. Recognition of this comes from a number of authors (Dick 1995, 1995a; Zuber-Skerritt 1993; Oja and Smulian 1989; Carr and Kemmis 1986; Heron 1985). Dick (1995a) suggests that the way in which cyclic activity provides for rigour and thus validity is through:

* the collection and interpretation of data in each research cycle before testing both data and interpretation in later cycles;
* seeking to disconfirm emerging interpretations in each cycle;
* critiquing and refining methods of reflection and action in each cycle;
* seeking out divergent data to challenge other data already collected.

Furthermore, he suggests that the literature provides an additional source of disconfirmatory evidence as does the process of implementing emergent changes from the action researching.

I believe action research provides the features (Section 2.1.1) I sought in a methodology because:

* my facilitation of pastoralists’ experiential learning would be a ‘real’ concrete social situation in which variables would be difficult to control;
* the cycles of action and reflection provide for data collection and interpretation of the experiences by all participants;
* the reflection phases enables me to develop understanding and respond with actions that further understanding of facilitation of experiential learning;
* its reflection phases enables me to determine ways in which I could seek disconfirming evidence and challenging data;
* its cyclic nature enables me to identify and implement action to change my facilitation of experiential learning;

* its inquiry nature supports the emergence of issues and outcomes that generate increasing clarity of the social system of my facilitation of experiential learning with pastoralists;

* it provides for flexibility in response to emergent issues and learning outcomes and permits me to use my data and its interpretation to choose future action for testing.

While these features generate positive outcomes for action research, I recognise that there are other aspects that I have forgone by accepting these features as appropriate to my needs. I have forgone the precise outcome possible when controlling some variables while examining one or more others. I recognise that I will be unable to replicate the implementation of action plans made in response to my interpretations. Finally, I understand that I will be developing outcomes that have local rather than universal relevance, at least in the first instance. Dick (1990;1993) refers to these as 'trade off' type features, while Susman (1983) recognises them less directly in his writing, through recognising the use of action research to provide change in local 'concrete' situations. This is also evident in the writing of Kemmis (1990) whose local situation is education and Zuber-Skerritt (1990a) whose local situation is professional development. What these authors are maintaining is that, in social situations that are complex and changeable, the flexibility and responsiveness of action research outweigh 'trade offs' by producing understanding and change.
Part of the reason for needing ‘trade offs’ comes from the qualitative type of data that usually yields understanding and responsiveness in complex social situations. The constructivist/interpretivist position assumed by me provides for interpretation based on individuals’ mental constructions of their experiences. Guba and Lincoln (1989) recognise that this is available in its least restricted form as qualitative data, as do Graziano and Raulin (1993) and Dick (1990b). Additionally Patton (1990), Dick (1990b) and Guba and Lincoln (1989) acknowledge the advantage that quantitative data offer where variable control is possible and warranted and they note the complementary nature of the two where applicable. However they also suggest that qualitative data in applied, concrete, real world situations is often most relevant. Its relevance in Patton’s (1990 p13) terms is that “Approaching field work without the restraints of predetermined categories of analysis contributes to the depth, openness, and detail ...”

In relation to methodological choice I am aware of examples where researchers used and then questioned their use of, and the effectiveness of, action research as a methodology. Two such examples are Simonson and Bushaw (1993) and Vakil (1994). Simonson and Bushaw (1993) describe how two action researchers failed to create participatory processes matched to their action researching goals of involving the community in research for change. Vakil (1994) reports a similar situation that led her to suggest the importance of contextual understanding when choosing action research as a methodology. The interpretations made by these authors have come about through their intrasubjective and intersubjective engagement with action research (Lomax and Parker 1995).
However, when examining my developing understanding of action research I understood that it provided a suitable methodology for researching the issue of my facilitation of pastoralists’ experiential learning. It offered that in a way that allowed qualitative data to lead to action in the complexity of the situation. This meant that it was possible for me to simultaneously seek improvement in the situation and in my practice in the situation.

Examples of action researching in complex agricultural situations with farmers are available. Webber (1993a) worked with pastoralists of the wool industry in western New South Wales. She refers to continuing activities of reflection and sharing of interpretations to develop meanings and from this, understanding. She writes of ‘action taking’ and its interpretation experientially for planning the next action. She recognises that a ‘trade off’ of the action research methodology she describes, is its local focus and, for that reason, suggests that the outcomes are not a recipe for replication.

In another example Gamble et al (1995 p18) provide their paradigmatic assumptions about the agricultural setting of their work, as suggested by Guba and Lincoln (1989) and Burrell and Morgan (1979). They do so when they clearly state that their research is “... located within an interpretivist or constructionist research paradigm ...” They refer to the benefits they gained from using an action research methodology because of its relevance to their operations in ‘real world’ situations where participation produced the major source of knowledge and action produced improvement. They refer particularly to the understanding gained by researchers and participants about the situation to enable the taking of action. As well they highlight the emergent nature of
action researching in developing an inquiry with the people involved in the complex
social system of farm businesses and farm transfer between generations.

I referred in this section to my methodology and the fact that I chose action research. I
explained how it reflected my surfaced assumptions relating to ontology, epistemology
and human nature. I also argued that I had chosen action research because it allowed
for emergent issues as well as the development of understanding and action. In
discussing the match between my research requirements and an action research
methodology I referred to its capacity for rigour based on cycles and its allowance for
qualitative data to contribute depth, openness and detail in understanding. I concluded
the section by giving examples of successful action research projects in agriculture. In
the next section I provide a model of my general methodology and its application.
Section 2.1.3 Diagrammatic representations of my action research methodology

**Figure 2.1** A diagrammatic representation of my action research methodology

In Figure 2.1 above, the cyclic nature of my action research methodology is quite apparent, while in Figure 2.2 overleaf, this overall framework is extended to include details of the sequential research cycles. In Figure 2.2 the cycles begin with planning in the lower right hand corner.
Figure 2.2 The three (3) connected cycles of the action research in Stream 1 of the project.

OBSERVING
How MTT members used experiential learning on CLIs and their wool issue

REFLECTING
On the project outcomes in relation to offering experiential learning to pastoralists as an optional way of operating

PLANNING
How to experientially learn about CLIs using an action learning structure

REFLECTING
With MTT and by myself, in relation to how MTT members could experientially learn - this led to working with current local issues (CLIs)

OBSERVING
MTT and my responses following my increased attention to participation and process transparency that contributed to MTT input into determining our direction

PLANNING
How to use Westland pastoralists ideas, in facilitating the experiential learning of a second group

ACTING
To use Westland pastoralists suggestions as I facilitated experiential learning in MTT and create increased participation

REFLECTING
To develop my understanding of how to introduce experiential learning to pastoralists, through group and my own reflection

OBSERVING
How Westland members and I acted and reacted in sessions in relation to our experiential learning process and content

PLANNING
How to facilitate experiential learning with pastoralists in central west Queensland

ACTING
To apply my initial understanding of action research as the Westland group worked experientially on their wool issue

7 Stream I and II are referred to in Chapter 1 and explained in the Section 2.2 of this chapter.
Section 2.2 The methods of my project

I used three major categories of methods of inquiry as I sought appropriate action in my project work. The first category was based on the concept of action research, the second that of experiential learning and the third that of action learning. In this section I refer to each category and provide a description as the basis of my use of each as a method. Additionally, the descriptions contain material that show the structural and conceptual linkages between the three categories. The linkages were a factor in my choosing these methods. As methods, their descriptions support my understanding that they are sufficiently unconstrained to provide flexibility in response to emerging issues.

Section 2.2.1 Action research


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8 In this thesis I consider action research as a category of research, a methodology and a method. As a category of research I engaged with action research for its explicitly cyclical process thus yielding understanding and action for change. The cycles operated in the project overall and as cycles within cycles of the project (Dick 1995). As a methodology I adopted action research in the particular form of plan, act, observe and reflect referred to by Kemmis and McTaggart (1988b). As a method I used a variety of research activities within the format of cycles of plan, act, observe and reflect e.g. semi-structured interviewing; rich picturing.
Kemmis and McTaggart (1988b p7) present a contemporary description of the action research method. They attribute their model as having evolved from the work of Lewin (1946), but existing now in a more developed form. They recognise that action research provides a framework for developing ideals, that is, it provides a research approach. As well, they suggest it offers "... a concrete procedure for translating evolving ideals into critically informed action" where in their case the concrete procedure, ideals, and critically informed action relate to the social situation of education.

Kemmis and McTaggart (1988b) describe the four phases of planning, acting, observing and reflecting following the identification of the initial thematic concern or problem. The initial cycle of these four activities leads to a second cycle in which the reflections of the previous cycle inform the plan. Zuber-Skerritt (1990; 1996) suggests the same phases as relevant for professional development while Dick (1995) emphasises that the "... two very important features of action research are its cyclic nature and the use of regular critical reflection."

In agricultural settings, Webber (1993) and Turnbull (1993) present the same basic cycle of designing/planning, acting, observing the outcomes that follow and critically reflecting upon them. Each presents the approach as a useful way of operating with a range of farmer groups to achieve change. French and Bell (1995 p145) describe their model for organisational development as ".... diagnosis, data gathering, feedback to the client group, data discussion and work by
the client group, action planning and action” while stating that it is practitioners and not just researchers who use action research. This is supported by the work of Dick (1994; 1995) and Susman (1983).

French and Bell (1995), Sommer (1987) and Grundy (1982) recognise that many subjects form the focus of action researching. Grundy (1982 p23) submits that “... action research may be applied in the service of a variety of world views.” A particular example of action research used in a successful project is that of Israel et al (1992) who used a method involving diagnosing, action planning, ‘action taking’, evaluating and specifying learning, in improving a situation involving occupational stress.

From the examples of descriptions given here it seems that foundationally there are four elements in descriptions of action research. The commonest cycle, described above, has the four elements of planning, acting, observing and reflecting and on examination the other cycles are quite similar. The cyclic nature of the process is referred to as well. Thus it seems that action research can be located in a tradition of research that pursues improvement through planning, acting, observing and reflecting in connected cycles of this process.

There were two ‘streams’ in which I applied action research in this project. The first ‘stream’ involved research to improve my capabilities as an extension officer introducing experiential learning to pastoralists. The second involved the development
of the skills of experiential learning by pastoralists through attention to an issue of relevance to them.

In each stream, I followed the cyclic action research method of planning, acting, observing and reflecting. The two streams are presented in Table 2.1 as they relate to the key attributes of action research presented by Grundy and Kemmis (1988).

**Table 2.1** The two streams of the project applying action research as a method using the format of Grundy and Kemmis (1988)

<table>
<thead>
<tr>
<th></th>
<th><strong>STREAM I</strong></th>
<th><strong>STREAM II</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Practice</strong></td>
<td>Extension officer introducing experiential learning to pastoralists</td>
<td>Development and use of experiential learning skills by pastoralists</td>
</tr>
<tr>
<td><strong>Application of Cycles</strong></td>
<td>Three connected action research cycles linking understanding and action related to introducing experiential learning to pastoralists</td>
<td>Shorter, action research cycles related to the pastoralists applying experiential learning to a wool industry issue and/or current local issues (CLIs)</td>
</tr>
<tr>
<td><strong>Those Involved</strong></td>
<td>Myself</td>
<td>Myself and pastoralists</td>
</tr>
</tbody>
</table>

The extension officer stream (Stream I) consisted of connected cycles of planning, acting, observing, reflecting as illustrated in Figure 2.2. The development of skills by pastoralists stream (Stream II) was characterised by a larger number of shorter cycles. Situations in Stream II were improved using connected cycles and the cycles of each
stream overlapped. These two streams are like the ‘two action research projects’ process proposed for research Masters and Doctoral students by Perry and Zuber-Skerritt (1992) and referred to at the start of Chapter 1.

Section 2.2.2 Experiential learning

Kolb (1984) presents experiential learning as a four stage cycle involving concrete experience, reflective observation, abstract conceptualisation and active experimentation. It appears to be no coincidence that there are similarities between this concept of experiential learning and that of action researching as Kurt Lewin is considered to be an important contributor to the development of both action research (Argyris 1983; Kemmis and McTaggart 1988b) and experiential learning (Kolb 1984).

A conceptual relationship between experiential learning and action research is understandable as both provide tools for change. Lewin’s (1952) four-phase action research process is planning, fact-finding, execution and reconnaissance in connected cycles. Kolb’s (1984) four-phase experiential learning process is experiencing a concrete situation, reflectively observing it, developing abstract conceptualisations from these reflections and identifying areas for active experimentation to test these ideas in subsequent iterations.

An example of the link between action research and experiential learning is presented by Eizenberg (1990) in his work to improve the teaching of anatomy to medical students. He describes his action research project as including smaller cycles within the
framework of the major cycles (Eizenberg 1990) and then discusses how he dealt with these issues. However, it is not the plan - act - observe - reflect model that he describes, but rather the Kolbian model of experiential learning.

Kolb (1984 p21) expressed the link as, “In the techniques of action research and the laboratory method⁹, learning, change, and growth are seen to be facilitated best by an integrated process that begins with here-and-now experience followed by collection of data and observations about that experience. The data are then analysed and the conclusions of this analysis are fed back to the actors in the experience for their use in the modification of their behaviour and choice of new experiences.”

Action research is the connecting of cycles of experiential learning focused on a particular situation. The learning outcomes of each cycle provide input to the next. To the extent that action researching and experiential learning are different it is that whereas experiential learning is conceived as the process by which experience is transformed into knowledge as a basis for personal adaptation to a changed situation, action researching is about taking action for intended change in a situation and learning about the nature of the change. Thus action research and experiential learning can be interpreted as a single phenomenon described from different perspectives. Bawden (pers comm) refers to action research as a particular form of experiential learning which reflects (a) shared learning, (b) the disposition of the learner(s) and (c) deliberate change as a source of the experience. Bawden also argues that where experiential learning proceeds from the concrete to the abstract, action researching does the

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⁹ ‘Laboratory method’ refers to studying interpersonal and intrapersonal processes using small groups.
opposite. This argument appears as conformity of stylisation to each process. Figure 4.3 diagrammatically presents an interpretation of the cycles of experiential learning and their connection to form an action researching sequence.

**Figure 2.3** A diagrammatic representation of connected cycles of experiential learning producing the phenomenon of action researching

Experiential learning provided a focus for skill development by pastoralists in my project and in this learning process I sought to investigate change through action research with pastoralists. My intent was to increase pastoralists' self-reliance through having them develop skills as experiential learners.

**Section 2.2.3 Action learning**

Action learning is a particular structural approach directed to learning in a social setting wherein questions from others form an important part of the activity. It was developed by Revans (1982a) who describes its attributes as ‘learning with and from each other’, ‘foreseeing future problems’ and ‘using yesterday’s wisdom well’. He also refers to ‘choosing questions to lead to action when all that is apparent is uncertainty and the person’s sense of their own feelings is that of ignorance and anxiety’. He refers to the
help that is offered in the social activity of action learning as being ‘debate’ based on questions and leading to ‘the direction’ in which to move. He also calls for the action learning process to be unconstrained with expansion of understanding through engagement in the process rather than rules for its use (Revans 1991a).

McGill and Beaty (1992) write about action learning as “... a continuous process of learning and reflection, supported by colleagues, with an intention of getting things done.” Through action learning, individuals learn with and from each other by working on real problems. Time is allocated for reflection so that action learning links the natural processes of learning, with a “questioning” based structure being utilised to ensure that it happens.

In Action Learning in Vocational Education and Training (Anon 1995) similar statements are made about the method. The “Revans’ equation” $L = P + Q$ is interpreted as learning ($L$) including both programmed knowledge ($P$) and questioning insight ($Q$). It introduces both experience and creativity to learning. $Q$ is the principal interest of action learning and is about facilitating new ways of thinking through questioning current thinking and assumptions about the issue at hand (Anon 1995).

Action learning introduces structure to social learning. The structure includes interaction with others, so that the richness of data available for reflection is enhanced. As well, action learning seeks action as an outcome of the learning. When done rigorously, action learning provides a way of ensuring reflection as a part of social learning (Frank 1997) - learning through interaction with others. In this way it
conforms to the advocacy by Habermas (1973) of therapeutic dialogue (i.e. talking with others) as the way to ensure higher quality reflection. Habermas maintains that self-reflection alone can be misleading. The incorporation of others into reflection activities is a theme common to documents referring to reflection (see Boud et al, 1985). Pedler and Boydell (1985) refer to the paradox of self-management requiring input from others, as do Dick and Dalmau (1991) in their use of the Johari window in personal development. The possibility of the social aspects of action learning providing for effective reflection and the potential for the development of new concepts about problematic situations was an important consideration in developing my project. Furthermore, I perceived it as having the potential for individuals to form sets based on their need in a specific situation. This has since been referred to as “... participant led ...” set formation (Webber and O’Hara 1997, p21) and reported “... to offer the most valuable learning opportunities.”

The preceding description of action learning as an inquiry method, identifies action learning as a form of experiential learning but distinguishes it from the classic Kolbian model. The emphasis in action learning is on developing social interactions between individuals involved in similar activities as the structure for reflectively questioning existing thinking about situations, and then uses the learning outcomes as the basis for personal adaptation or change. It is the social and questioning aspects of action learning together with the potential for participant initiation of sets that drew my attention to it as a focus for developing self-reliance among pastoralists.

In this section, the three methods of inquiry that formed the foundation of my action researching approach to the facilitation of experiential learning with pastoralists were
presented as different perspectives of the same inquiry phenomenon. I referred to experiential learning as an inquiry method characterised as a single cycle of planning, acting, observing and reflecting. I referred to the action research method of inquiry as connected cycles of planning, acting, observing, reflecting. To complete the section I described the inquiry process of action learning with particular attention to its social aspects and questioning elements. In combination the three methods provide for flexibility and diversity of response to emerging issues while maintaining a coherent underlying rationale and framework.

Section 2.3 Summary

In this chapter I outlined the ontological, epistemological and human nature assumptions that led to my choice of action research as the methodology. I also identified the features I believed a methodology to guide facilitation of experiential learning with pastoralists needed. I then explored the match between the features I sought and action research as my chosen methodology. I concluded the chapter by describing and discussing to the three major methods of inquiry I used in my project, those of action research, experiential learning and action learning. In the next chapter I detail the events and issues (experiences) of my research project.
Chapter 3  An overview of the events, issues arising and concepts explored in the three cycles of action research

Section 3.1 Introduction

In Chapter 1 I outlined the arguments that I wish to develop in this thesis. In this chapter I put the events and related issues of the ‘fieldwork’ of my action researching into a time-sequence. The events and related issues depicted here are the ones that provided for the emergence of my learning outcomes and thus my central arguments. These emerged either during the experiences themselves and my immediate reflection on them, or during the reflections that have been a critical aspect of my thesis writing.

I began this project while I was a sheep and wool industry extension officer with the Department of Primary Industries (DPI) in central western Queensland. My role necessitated that the focus be on an issue or issues directly related to that industry.

My initial funding came through the then Wool Research and Development Corporation (WRDC) for a project called ‘Group Action Learning and Networks for Technology Transfer’ (Roberts 1991). It incorporated a focus on technology and its transfer to pastoralists. However, individuals and their learning was my main focus. For me it was my initial step in determining how I, as a sheep and wool extension officer, could put into practice the concept of facilitating the development of experiential learning skills by pastoralists.
The project material is in five tables:

1. The time relationships between the action research cycles in the project (Table 3.1).

2. The period leading-up to the group activities in the project (Table 3.2).

3. The first action research cycle of the project with the first group of pastoralists (Table 3.3).

4. The second action research cycle with a second group of pastoralists (Table 3.4).

5. The third action research cycle that evolved with the second group of pastoralists (Table 3.5).

The material related to the project’s events, issues and concepts, is presented in tables with minimal additional text. Some detail is sacrificed to make it easier to track the sequence of events and issues. In later chapters I provide more detail of specific situations.

**Section 3.2 The time relationships between the action research cycles of the project**

To provide an overall time perspective on the three cycles of action research Table 3.1 places each cycle in an approximate time relationship.
Table 3.1 The relative, overall time relationship between the sequences of cycles 1, 2 and 3

**CYCLE 1**
Cycle 1 begins with sessions on experiential learning.

We regularly reflect on our use of the experiential learning cycle.

I plan for the second group in cycle 2. I perceive pastoralists’ descriptions of the experiential learning process as ‘boring’.

Pastoralists raise a, ‘You have a map, but it’s in your pocket’ issue, telling of my non-transparent process.

The issue of ‘directing pastoralists to an outcome of my choice’ arises in my reflection.

I reflect to change my understanding of participation through seeking congruency in my action theories. Following this, pastoralists show significant learning outcomes about wool issue.

I explore ‘boring’ to find that my facilitation confuses pastoralists.

Reflection to conclude cycle 1 supports use of original experiential learning process by pastoralists. It also highlights the value of early relationship building.

**CYCLE 2**
To reduce the ‘boringness’ mentioned by Westland pastoralists I begin cycle 2 with less time spent to develop pastoralists understanding of experiential learning.

Cycle 2 concluded following input from cycle 1 where my learning outcome about being directive arose.

We review direction and change to current local issues (CLIs).

**CYCLE 3**
We began cycle 3 with attention to process transparency and more congruent theories of action of participation.

We develop action learning processes.

We use a process to explore self-esteem once, but not as a learning focus about relationships.

Several pastoralists bring real CLIs and exhibit double loop learning.

Pastoralists support my bringing a problematic situation as a learner in the group.
The items in Table 3.1 are events of significance in my action researching. In particular they show the emergence of changes in my facilitation related to participation and collaboration, transparency and relationships. The table represents the thesis action research project as suggested by Perry and Zuber-Skerritt (1992) and which I refer to as Stream I\(^{10}\) of my project. The following tables in this chapter present more material on events depicted in Table 3.1.

**Section 3.3 The lead-up to the project**

Because events prompted issues to which I refer, or the issues prompted events, they are displayed in parallel columns (in Tables 3.2 to 3.5). The events occurring and the issues raised, often led me to reflect on certain concepts aligned with them and they are presented in third column. Exploration of these concepts in the literature

---

\(^{10}\) See Chapter 2 Section 2.2.1.
complemented my reflections and contributed to my plans for action. Items in the same row in different columns occurred at about the same time. Dotted horizontal lines are used to denote specific events and their accompanying issues and concepts. The events shown and the issues arising represent situations that formed part of the planning, acting, observing and reflecting phases of connected action research cycles (Zuber-Skerritt 1993). They thus portray the phases of action researching that I undertook in the project. In later chapters I provide more detail about specific situations.

The development of the device of a three column table to convey this material began with my need to provide concise information that put the activities of the cycles of action research into context. A suggested way of accessing the information in the tables is to first develop an appreciation of the sequence of events in column one and then return to the start of the table and read across to develop an understanding of the interplay between the events, issues and concepts.

In the initial establishment phase of the project I conducted a broad investigation of the agricultural system in the central west of Queensland. I also established a project group with three other DPI extension officers who expressed interest in the approach. Reference to these two aspects of the project is in Table 3.2.
### Table 3.2. The lead-up exploratory phase and establishment of the project

<table>
<thead>
<tr>
<th>THE EVENTS</th>
<th>THE ISSUES ARISING AT THE TIME</th>
<th>THE CONCEPTS EXPLORED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winter 1991</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My proposal to examine the concept of having pastoralists acquire and use the skills of experiential learning received funding from the Australian Wool Corporation funding body.</td>
<td>Why don't extension responses satisfy pastoralists' identified needs?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>What is the link between an individual's learning and the transfer of technology?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What role can extension play in promoting learning skills?</td>
</tr>
<tr>
<td><strong>Spring 1991 and Summer 1991/1992</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With two others I reflected on the local agricultural system. We identified its participants.</td>
<td>Who are the people in the agricultural system of central west Queensland?</td>
<td><strong>Interviewing</strong> (Minichielo 1990; Dowsett 1987)</td>
</tr>
<tr>
<td></td>
<td>I planned to interview participants from each category.</td>
<td>Who has an impact on pastoralists’ learning skills?</td>
</tr>
<tr>
<td></td>
<td>I acted to conduct the series of interviews.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I reflected on the material generated to remain with the view that individual pastoralists and their learning forms a useful starting point.</td>
<td></td>
</tr>
<tr>
<td><strong>Winter/spring 1992</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I formed a project group with three other DPI extension officers. We planned how our group would operate.</td>
<td>Negotiating with extension officers about our involvement.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>We discussed action research and accepted it as the most useful methodology for our activity.</td>
<td>We need to take action to decide the foundation of our work.</td>
</tr>
<tr>
<td></td>
<td>We planned and acted to use action learning and experiential learning principles in our project group activities.</td>
<td>How can our project group enact in our operations, the principles that we espouse in relation to learning?</td>
</tr>
<tr>
<td></td>
<td>We used convergent interviewing to identify 'lack of control of wool marketing by woolgrowers', as currently important to pastoralists.</td>
<td>Our aim is to support pastoralists to respond as they choose.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>It is necessary to sample to include diversity. We need to develop our interpretation skills.</td>
</tr>
</tbody>
</table>
Section 3.4 The first action research cycle of my project

I began my ‘field work’ with pastoralists in the Longreach district in the summer of 1992. Table 3.3 lists the events that ensued.

‘Issues arising at the time’ are in the central column. It contains issues that became the focus of shorter cycles of action research that occurred within the three longer cycles of action research. They represent issues on which I, or pastoralists and I, acted to seek improvement through action research. These issues are identified here because they are referred to in later chapters. The nature of the issue is represented in the table by the following symbols. They provide a means of tracking the shorter cycles of action research:

+ My reflection activities.

+++ Taking action as a part of learning.

* Attending to the need to develop new concepts as a part of learning.

** Developing our group reflection skills.

*** Developing my facilitation skills for learning situations.

# Making process transparent to participants.
Table 3.3 A representation of the events, issues and concepts relevant to the first action research cycle of my project with pastoralists

<table>
<thead>
<tr>
<th>THE EVENTS</th>
<th>THE ISSUES ARISING AT THE TIME</th>
<th>THE CONCEPTS EXPLORED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer 1992/1993</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I invited one grazer from each management team contacted to be involved in a group. The group is to operate differently - learning, self-help - in relation to the issue, “The role that I as a Longreach woolgrower can play in marketing my wool”(^{11}). I told them of my doctoral study.</td>
<td>There is a need to provide for free and informed choice about involvement. Negotiation to settle logistic details.</td>
<td>Group formation and group processes (Dick 1987). Inviting for group involvement (Macadam pers comm; Dick pers comm).</td>
</tr>
<tr>
<td>We conducted a one-off activity to develop good relations to start the group that was now the Westland(^{12}) group.</td>
<td>Good relationships contribute to useful group operation.</td>
<td>Group processes (Dick 1987).</td>
</tr>
<tr>
<td>I began our program with four sessions over five weeks to experientially introduce pastoralists to experiential learning.</td>
<td>+ Understanding my reflection and planning needs in action researching.</td>
<td>Experiential learning (Kolb 1984).</td>
</tr>
<tr>
<td>One member of my DPI project group attended the initial sessions and participated in subsequent reflection and planning.</td>
<td>* I believe creating opportunities to think differently and develop new concepts is a part of experiential learning.</td>
<td>Experiential learning process techniques (UWS(H) Ag Pak LS6; Macadam pers comm).</td>
</tr>
<tr>
<td>I provided specific techniques for exploration, analysis, bridging the concept development gap and deciding.</td>
<td>As a facilitator, I should model learning.</td>
<td></td>
</tr>
<tr>
<td>I acted to structure group reflections through painting and structured discussion. **</td>
<td>** Our reflection after the first session was unstructured and my observation was of a low level of participation.</td>
<td>Reflection (Boud et al 1985).</td>
</tr>
<tr>
<td>From their activities using the learning cycle, pastoralists identified their individual directions for action about our wool issue.</td>
<td></td>
<td>Participative processes (Spencer 1989).</td>
</tr>
</tbody>
</table>

Autumn/Winter/Spring 1993 and

\(^{11}\) This was reworded by Westland group members for their situation to read ‘The role that I as a Longreach woolgrower can play in preparing and selling my wool’.

\(^{12}\) The name of the farm property owning the school-house in which we met.
<table>
<thead>
<tr>
<th>THE EVENTS</th>
<th>THE ISSUES ARISING AT THE TIME</th>
<th>THE CONCEPTS EXPLORED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer 1993/1994</td>
<td>We had eight other sessions over 12 months as a group.</td>
<td></td>
</tr>
<tr>
<td>We periodically reflected on our activities in relation to their link to</td>
<td>*** I think that my facilitation can draw attention to learning and support new concept development.</td>
<td>Soft systems methodology and concept development (Checkland 1981).</td>
</tr>
<tr>
<td>the experiential learning cycle.</td>
<td>As a group we reflected on pastoralists' perception of nothing to do following meetings.</td>
<td>Processes for testing researcher observations (Dick pers comm).</td>
</tr>
<tr>
<td>As a group we reflected on pastoralists' perception of nothing to do</td>
<td>Seeking evidence to disconfirm or explain observations that some Westland members thought that</td>
<td>Identifying assumptions (Argyris et al 1985).</td>
</tr>
<tr>
<td>following meetings.</td>
<td>they had nothing to do following meetings.</td>
<td></td>
</tr>
<tr>
<td>Pursuing cyclic activity (observe, reflect, plan, act, observe, reflect,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>plans, act) in relation to issues that arose.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pastoralists collected wool issue information and returned and shared it</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in the group.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I recorded reported instances of learning and its level.</td>
<td>+++ What does action mean in these situations with pastoralists?</td>
<td>Single and double loop learning (Argyris et al 1985).</td>
</tr>
<tr>
<td>We reflected as a group, on action and 'action taking' concepts.</td>
<td>We reflected with pastoralists about my procedure for initiating another group.</td>
<td>Reconstructing events for reflection (Dick pers comm)</td>
</tr>
<tr>
<td>I reflected with pastoralists about my procedure for initiating another</td>
<td>This produced the issue of pastoralists initially not knowing where we were going. The</td>
<td></td>
</tr>
<tr>
<td>group.</td>
<td>description was, 'You have a map but it is in your pocket [where we can't see it].'</td>
<td></td>
</tr>
<tr>
<td>Pastoralists had difficulty preparing a mind map of their wool</td>
<td>Validation with the Westland group of my perceptions of how to invite participation in</td>
<td></td>
</tr>
<tr>
<td>information to determine actions to take in relation to our wool issue13</td>
<td>learning how to learn, can provide my basis for action.</td>
<td></td>
</tr>
<tr>
<td>What does the difficulty of getting the mindmap of wool information to</td>
<td></td>
<td>Rich picturing and mind mapping (Davies and Ledington 1991); Models (Flood and</td>
</tr>
<tr>
<td>flow outwards and focus on what individuals can do for themselves, mean</td>
<td></td>
<td>Jackson 1991); Critical reflection (Macadam pers comm).</td>
</tr>
<tr>
<td>for the way pastoralists' groups can experientially learn together?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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13 For pastoralists at Westland it was 'The role that I as a Longreach wool grower can play in preparing and selling my wool'.

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<table>
<thead>
<tr>
<th>THE EVENTS</th>
<th>THE ISSUES ARISING AT THE TIME</th>
<th>THE CONCEPTS EXPLORED</th>
</tr>
</thead>
<tbody>
<tr>
<td>A change occurred in my understanding of how I understood participation and collaboration. On that basis I sought to match my theories-in-use and my espoused theories of these practices.</td>
<td>My recognition that I was being directive and limiting pastoralists in their decisions. I should act on ways to overcome my perception of the necessity for a conventional outcome otherwise the project will fail. I need to show congruency in my theories of action of participation and collaboration.</td>
<td>Models for meaningful debate (Dick pers comm). Facilitating learning for change (Macadam pers comm).</td>
</tr>
<tr>
<td>I reflected with the Westland group on my dilemma of believing we needed a ‘conventional outcome’ that others would see as appropriate rather than what they thought was relevant to them. This changed my understanding of how to facilitate to support new concept development. The outcome appeared to be more creative responses individually to our wool issue.</td>
<td>* As a researcher, I need to understand how to support the development of new concepts by pastoralists. Is this dilemma about needing a ‘conventional outcome’ confined to me?</td>
<td></td>
</tr>
<tr>
<td>I reflected with Westland group about lack of transparency of process, i.e. having a map but in my pocket so others can’t see it.</td>
<td># There are learning outcomes I can gain from the pastoralists’ expressions of a lack of clarity of overall direction in our initial activities when introducing experiential learning.</td>
<td>Process transparency (Dick 1987; Dalmau and Dick 1992).</td>
</tr>
<tr>
<td>Reflected with the group on their meaning of ‘boring’ to arrive at the understanding that my facilitation created confusion for them.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pastoralists brought together all the information on the wool issue and identified its meaning for their situations. That is, they reported their learning outcomes.</td>
<td>What have been the outcomes and overall changes in relation to learning and to the wool issue for pastoralists?</td>
<td>Mind mapping (Margulies 1992)</td>
</tr>
<tr>
<td>I reflected with pastoralists about our use of the experiential learning process and outcomes for them. The reflection was done in 3 ways: verbally as a group, through responding to written questions and in interviews with property management teams represented. There was support for the experiential learning process as we used it but with attention to problems specific to each pastoralist. As well, there was support for our early relationship building activity.</td>
<td></td>
<td>Semistructured interviewing (Minichiello 1990) Evaluation (Guba and Lincoln 1989).</td>
</tr>
</tbody>
</table>
Section 3.5 The second action research cycle of my project

Table 3.4 outlines the second cycle of my action research. Central to this cycle is the formation of a second pastoralists’ group. The invitation was for involvement in a group focussed on learning from experience, thinking differently, and self-help. This was to be achieved through attention to a wool industry issue.

Because I began this cycle before the completion of cycle one, there is an overlap of time and events between the two. (See Table 3.1 for details).

The format of the table is the same as that for Table 3.3 and the central column, ‘Issues arising at the time’, contains items that underwent the application of action research cycles within the project’s three larger cycles of action research. That is they were ‘cycles within cycles’. These are marked as follows:

+ My reflection activities.
++ Improving our action learning practice.
* Attending to the need to develop new concepts as a part of learning.
*** Developing my facilitation skills for learning situations.
# Making process transparent to participants.
Table 3.4 The second action research cycle of my project work

<table>
<thead>
<tr>
<th>THE EVENTS</th>
<th>THE ISSUES ARISING AT THE TIME</th>
<th>THE CONCEPTS EXPLORED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spring 1993</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I planned the process of initiating a new grazier group based on learning outcomes arising as cycle 1 was progressing.</td>
<td>I need to make it possible for pastoralists to not accept my invitation. (A reflection of the power of my social role.)</td>
<td>Learning and the experiential learning cycle (Kolb 1984; Bawden 1990).</td>
</tr>
<tr>
<td>I invited involvement based on material from Westland group on how to invite involvement.</td>
<td>I wish to incorporate the ideas developed in reflection activities with the Westland group. They are: a) The theory sessions were ‘boring’. [In response I chose to reduce the number from 4 to 2.] b) Support people to ask what and why. c) Clarify the purpose of each activity. d) Make the exercises practical. e) Keep attending to expanding pastoralists’ ways of thinking.</td>
<td>Rich picturing (Davies and Ledington 1991).</td>
</tr>
<tr>
<td>Eight pastoralists accepted my invitation. One withdrew before attending the first session.</td>
<td>If I was being directive and limiting creative concept development with the Westland group, is the same happening with group 2?</td>
<td>Goal setting (Dick 1990).</td>
</tr>
<tr>
<td>I conducted the first of two, rather than four, experiential sessions to introduce experiential learning.</td>
<td>* Supporting personal, naturally emerging, and individual flexibility and creativity in group activities. # I want to increase my openness to group input into process decisions and attention to transparency of process. How can I use the understandings emerging in the continuing cycle one, to inform the second cycle?</td>
<td>The cyclic nature of action research (Zuber-Skerritt 1990).</td>
</tr>
<tr>
<td>I changed my approach in the second theory session to one of being more participative and collaborative. I did this because of my reflections on: a) The evidence of my limiting creativity through ‘directing’ for my outcomes in Westland activities (cycle 1). b) The issue raised at Westland, of my lack of clarity of our initial purpose in the theory sessions 14. c) My purpose for the theory sessions was to have the pastoralists experience the skills that are experiential learning.</td>
<td></td>
<td>New concept development (Macadam pers comm).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fostering natural creativity (Bunting 1989; Edwards 1979).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Process transparency (Dick pers comm).</td>
</tr>
</tbody>
</table>

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14 The pastoralist farmers of the Westland group referred to the first sessions where we sought to experientially learn about the experiential learning process, as ‘theory’.

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### THE EVENTS

d) My observations of reactions by group members in the first theory session of group 2.

These reflections led to a changed approach for the second theory session.

I conducted the second theory session with my changed perspective on participation and collaboration.

Group 2 chose their own session topic. Group expressed their understanding of our group focus as ‘thinking’, and naming themselves the Mutturra Think Tank (MTT) group.

I sought to attend to my problematic situation of improving process transparency through inviting discussion about an offered purpose, suggested outcomes and possible ways of reaching these.

**Summer 1993/1994**

Conducted the first of what were to be 10 post-theory sessions.

Reflected with MTT where the idea emerged of dealing with issues that were currently relevant in their decision-making. We agreed to operate on such issues as well as return later to the wool issue. The MTT members referred to these as current local issues (CLIs).

I reflected on my emerging conceptualisation of group participation and collaboration.

As a group, we discussed and agreed to continue to use experiential learning as a foundation for directing our attention to learning about CLIs.

I sought disconfirming evidence about the usefulness of the change in group focus to dealing with current local issues. The pastoralists supported the change.

### THE ISSUES ARISING AT THE TIME

**THE CONCEPTS EXPLORED**

*** I should act to support group decision-making.

Facilitation.

# How can I engage participants in process decision-making to create transparency of process.

Process transparency (Dick pers comm).

My reflection on how reflection with Westland pastoralists showed experientially learning about current problematic issues was a concept to test.

+ How does action research in group situations deal with problematic situations that arise in the work?

I need to negotiate my need to generate material about the process of developing learning opportunities with pastoralists for my Doctoral study.

Has this been a shift that the group supported?

---

15 Mutturra is the name of the local district for these pastoralists.
Section 3.6 The third action research cycle of the project

Table 3.5 contains the events and issues, as well as the concepts and theory explored, during the third cycle of my research.

The third cycle of the research involved the same group of pastoralists as in the second cycle. Cycle two concluded with the emergence from the collaborative action research of CLIs (Current Local Issues) as a significant focus for the MTT group. Thus cycle three involved a change in focus from experiential learning about an issue related to the wool industry, to experiential learning about issues that were currently confronting pastoralists\(^{16}\) in their property management. Later we returned to the wool issue around which the group had first gathered.

The central column, ‘Issues arising at the time’, contains items that underwent the application of action research cycles within the project’s three larger cycles of action research. That is they were ‘cycles within cycles’. These have been marked as follows:

- My reflection activities.
- Improving our action learning practice.
- Taking action as a part of learning.
- Attending to the need to develop new concepts as a part of learning.
- Developing our group reflection skills.
- Developing my facilitation skills for learning situations.
- Making process transparent to participants.

\(^{16}\) The Muttaburra pastoralists referred to these as current local issues (CLIs).
Table 3.5. The third cycle of the action research

<table>
<thead>
<tr>
<th>THE EVENTS</th>
<th>THE ISSUES ARISING AT THE TIME</th>
<th>THE THEORY AND CONCEPTS EXPLORED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autumn/winter/spring/ summer 1994/1995</td>
<td>I conducted 9 other sessions with the MTT over the following 10 months.</td>
<td>++ What initial knowledge about a problematic situation will allow a group to action learn using that situation?</td>
</tr>
<tr>
<td></td>
<td>MTT reflected on a process we used for describing problematic situations and developed guidelines for bringing problematic situations to sessions.</td>
<td>++ Developing a process of action learning as a procedure for dealing with problematic issues.</td>
</tr>
<tr>
<td></td>
<td>As a group we developed a five stage model for action learning with current local issues (CLIs) based on the questioning model of action learning.</td>
<td>** In what ways do reactions to events influence learning and how can a group reflect to increase an individual’s awareness of this?</td>
</tr>
<tr>
<td></td>
<td>We reflected as a group, at the end of each session.</td>
<td># My awareness that some MTT members still seemed unsure of our direction - expressed as ‘why are we here?’ The outcome seemed positive.</td>
</tr>
<tr>
<td></td>
<td>Pastoralists were keener to stay focussed on content when I once sought to deal with how we each reacted to each other in discussions.</td>
<td>Is present input from pastoralists into how our sessions run adequate? Do we have a shared understanding of our direction?</td>
</tr>
<tr>
<td></td>
<td>I sought disconfirming evidence of the success of my attempts to create transparency of process through reflecting on ‘why are we here?’ The outcome seemed positive.</td>
<td>I believe we need to focus on our process.</td>
</tr>
<tr>
<td></td>
<td>I continued offering a purpose and suggested agenda for discussion to start each session.</td>
<td>I will benefit from increasing my understanding of reflection in action research and its role in inquiry.</td>
</tr>
<tr>
<td></td>
<td>As an action researcher, I spent time reflecting after each session and as other events arose.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I continued reflecting on ways that I, as an action researcher, could develop the participative and collaborative aspects of the research with the group.</td>
<td></td>
</tr>
<tr>
<td>THE EVENTS</td>
<td>THE ISSUES ARISING AT THE TIME</td>
<td>THE THEORY AND CONCEPTS EXPLORED</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>I introduced an activity that drew attention to group relationships.</td>
<td>*** How do groups interact? How can my facilitation support it usefully?</td>
<td>Exercises for self esteem (Anon 1991).</td>
</tr>
<tr>
<td>A concept began emerging for me that facilitation, and not just the processes used, impact on how the group operates.</td>
<td></td>
<td>Congruency of action theories (Argyris et al 1985).</td>
</tr>
<tr>
<td>I used lateral thinking techniques for variety in generating new concept development.</td>
<td>* Is dissonance a needed prerequisite for change and the development of new concepts?</td>
<td>Lateral thinking (deBono 1971;1982).</td>
</tr>
<tr>
<td>* I need to demonstrate ways of using techniques that assist pastoralists to gain new perspectives on issues.</td>
<td></td>
<td>Critical thinking (Brookfield 1987).</td>
</tr>
<tr>
<td>I introduced, for MTT discussion, propositional knowledge about action learning set sessions.</td>
<td>++ Is our process providing what MTT pastoralists want?</td>
<td>Conflict management (Dick 1990a).</td>
</tr>
<tr>
<td>My time management of sessions needs to improve.</td>
<td></td>
<td>Action learning set procedures (Bunning 1993; McGill and Beaty 1992)</td>
</tr>
<tr>
<td>To further the concept of improving my process transparency and collaborativeness, I prepared only a proposed purpose for our sessions. We discussed and modified the purpose and then as a group developed the activities to reach it.</td>
<td># I need to test expanded discussion activities as sessions begin, as a means of creating process transparency.</td>
<td></td>
</tr>
<tr>
<td>We tested and reflected on a revised model of action learning. Pastoralists continued bringing CLIs for action learning.</td>
<td>++ I want to make action learning relevant to participating pastoralists.</td>
<td>Action learning set operations (McGill and Beaty 1992).</td>
</tr>
<tr>
<td>I sought disconfirming evidence of pastoralists support for the use of our action learning model in our group. They supported its use.</td>
<td>++ Posing the question to pastoralists &quot;Would you come back for this (way of operating)?&quot;</td>
<td></td>
</tr>
<tr>
<td>My reflection led to recognition of the concept that opportunities arise for learning in our group. Grasping the opportunities can come through facilitation.</td>
<td>*** Some events lead to learning opportunities - expanding these to embrace everyone would be useful for learning.</td>
<td>Reflection in co-operative inquiry situations (Heron 1988).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facilitation in action learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Involving people in their decisions (Seligman 1991).</td>
</tr>
<tr>
<td>THE EVENTS</td>
<td>THE ISSUES ARISING AT THE TIME</td>
<td>THE THEORY AND CONCEPTS EXPLORED</td>
</tr>
<tr>
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<td>---------------------------------</td>
</tr>
<tr>
<td>My reflection led to a group discussion about my presenting a problematic issue. The concept that emerged was that I should do so. I did so and MTT members suggested it was a useful demonstration practice.</td>
<td>*** In personal reflection notes made about observations in my project work I become aware that I respond to situations that are unclear to me, by suggesting that the process I’ll use to increase my clarity is ‘initiate discussion [with pastoralists in the group] about … (situation) …’ It is the only process I refer to for issues that are unclear. For me it raises questions about whether there are alternative ways and, is my choice related to my own preferred learning style?</td>
<td>Preferred learning styles (Mumford 1993).</td>
</tr>
<tr>
<td>Two pastoralists brought CLIs that we used in action learning. Afterwards they said that the outcome was the same as their own deliberations, but the group had reinforced their learning outcome.</td>
<td>I wonder if the CLIs being brought are appropriate.</td>
<td></td>
</tr>
<tr>
<td>My reflections led to my understanding that issues brought to our group activities by pastoralists are real for them. However, I didn’t seek disconfirming evidence.</td>
<td>+++ How might this not taking action be explained?</td>
<td></td>
</tr>
<tr>
<td>We returned to the wool issue around which the MTT had originally gathered. The group decided to prepare a ‘code of options’ for wool selling.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In a reporting back session, two pastoralists said they had not taken planned action in relation to their CLI. The reasons centred on already existing satisfaction in each problematic area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We reflected on what would make it possible for each of these two pastoralists to bring issues that were currently important to them.</td>
<td>I need to understand what makes it possible to bring personally significant issues to the action learning sessions.</td>
<td></td>
</tr>
<tr>
<td>Both agreed they wouldn’t feel comfortable bringing their problems to the group.</td>
<td>What might this mean in terms of pastoralists and action learning?</td>
<td></td>
</tr>
<tr>
<td>As a group we reflected on the issue of raising real issues at action learning sessions.</td>
<td>++ Are there key points about the process of action learning that would create support for pastoralists to bring such issues?</td>
<td></td>
</tr>
<tr>
<td>On their initiative MTT members and I demonstrated action learning to their other management team members. In a second round we involved the larger group in an action learning activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE EVENTS</td>
<td>THE ISSUES ARISING AT THE TIME</td>
<td>THE THEORY AND CONCEPTS EXPLORED</td>
</tr>
<tr>
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</tr>
<tr>
<td>I reflected on the material relating to the two situations where pastoralists did not take action. A concept began emerging for me of the role of relationships in generating the exchange of authentic information.</td>
<td>What can I learn from pastoralists not bringing real CLIs?</td>
<td>The occurrence of non-real issues in action learning. (Personal experience in another situation of action learning sets; McGill and Beaty 1992)</td>
</tr>
<tr>
<td>One pastoralist recognised and referred to what appeared to be higher level learning relating to 3 CLIs the group used in action learning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In our group the pastoralists collected, shared and reflected on the material relating to the wool issue. Reflection drew reference to the usefulness of having a method (original experiential learning model) for working on the wool issue.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In a session reflecting on a proposed group learning purpose, I acted to generate dialogue amongst members. The outcome was useful but not clearly better than previous experiences.</td>
<td>+++ How are MTT members seeing their taking action in relation to what they are experientially learning?</td>
<td>‘Dialogue’ (Senge 1990).</td>
</tr>
<tr>
<td>The group decided to bring together their material about options for selling wool, put them into a pamphlet and make it available to other pastoralists.</td>
<td>I need to practise the concept of not creating my perspective of appropriate action as the dominant one.</td>
<td></td>
</tr>
<tr>
<td>In a final session, we reflected on our groups’ time together through group reflection and responding to review questions. Three months after this I conducted reflection interviews with MTT members and some management team members. There was no clear support for using the questioning model of the action learning process with other pastoralists. Some said they used the process with their families.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE EVENTS</td>
<td>THE ISSUES ARISING AT THE TIME</td>
<td>THE THEORY AND CONCEPTS EXPLORED</td>
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<td>----------------------------------</td>
</tr>
<tr>
<td>I continued my reflection as thesis writing to generate abstract conceptualisations and foci for active experimentation.</td>
<td></td>
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</tr>
</tbody>
</table>

**Section 3.7 Summary**

This chapter provides an overview of the events of the project, a highlighting of the issues that arose at the time, and the concepts explored in response to an event or issue. The tables are an attempt to convey something of the complexity of my intervention into the learning system of individual pastoralists. They portray the project as the non-linear application of cycles of action research informed by previous events, issues and concept exploration. More detail will be presented in later chapters as I develop the arguments drawn from this work.

I have now presented my central arguments, my methodology and an outline of the events of my project. In Chapter 4 I present my reflective observations on literature related to Argument I of the thesis.
Chapter 4  My engagement with propositional knowledge in the literature on learning

Section 4.1 Introduction

In this chapter, I outline some of the propositional knowledge\textsuperscript{17} that informed my reflections related to Argument I presented in Chapter 1. I follow this in Chapter 5 with reflections, observations and interpretations related to my field work in the light of the knowledge gained in Chapter 4, and the concepts developed as a result.

I follow the same logic relative to my second thesis argument in Chapters 6 and 7. That is, relevant propositional knowledge drawn from the literature is presented in Chapter 6 and reflections, observations and interpretation of field work, and concepts developed subsequently are presented in Chapter 7.

My first thesis argument (Argument I) is related to my understanding of learning generally and experiential learning\textsuperscript{18} in particular. In that argument I suggest that experiential learning provides a process by which I can facilitate the emergence of learning outcomes or change, in response to the thematic concerns of participants in groups, as well as developing learning outcomes or change about the difficulties that

\textsuperscript{17} The Macquarie Dictionary defines a proposition as 'anything stated or affirmed for discussion or illustration'. Propositional knowledge is knowledge already known (affirmed) and available from sources other than our own experiences. It is learning for knowing (Bawden 1990).

\textsuperscript{18} The Macquarie Dictionary defines experience as 'a particular instance of personally encountering or undergoing something'. Experiential learning refers to how the 'encountering' can consciously provide learning for the person involved. For my project the model I am referring to as the means of providing the learning is that of Kolb (1984). It a four-stage cycle involving the concrete experience (the instance encountered), reflective observation of that (thinking consciously about it), followed by developing abstract conceptualisations (concepts of what it might mean) and concluding with identifying ideas for active experimentation (guides in the choice of new experiences) (Kolb 1984; Wolfe and Kolb 1991).
arise in group functioning and the facilitator’s role. My grasp of relevant propositional knowledge is based on my appreciation of the literature, but my experience in this case suggests the search for literature related to an applied project with an experiential learning focus is itself problematic. It seems that practitioners in arenas where I expected to find relevant literature (applied situations in psychology, organisational change and development, and education) are less able or likely to conduct formal research because of the dynamic and complex nature of their working situations. Toulmin (1996), Dick (1995), Kochendorfer (1994), Berlin and White (1992) and Martin (1989) all suggest this. The suggestion is that since few practitioners conduct research and/or publish, there is a lack of literature based on field experience. The initial training of practitioners appears to be a contributory factor insofar as it focuses on quantitative and theoretical research principles and practice rather than applied field research. Wren, Buckley and Michaelsen (1994), Kochendorfer (1994), Dick (1993) and Ong (1989) refer to this mismatch in the training of management, psychology, education and organisational change and development practitioners.

In reviewing literature relevant to my interest in experiential learning with pastoralists I adopted the strategy of focussing my efforts on material related to the application of what is learnt by the learners. As a result, in this chapter I discuss:

* learning how to learn and self-directedness in inquiry;
* levels of learning;
* higher level learning, its role in agricultural change and the usefulness of experiential learning in creating higher level learning;
* cognitive development and higher level learning;
* reflection, critical reflection and epistemic organisation as a part of experiential learning; and
* the requirement for authentic information in communication for learning.

The propositional knowledge developed in this chapter informed my formal thesis reflections related to argument one\(^\text{19}\) and which crystallised after the completion of field work and its ongoing cycles of reflection, interpretation and action. The concepts that emerged in the formal reflection of thesis writing are dealt with dialectically with the literature of this chapter (Chapter 4) and other literature, in Chapter 5. This is consistent with reporting an action research thesis and Perry and Zuber-Skerritt (1992) refer to “reflection in the thesis” in their description of the relationship between the core and thesis action research projects. It is also consistent with Dick’s (1993) structure for an action research thesis wherein outcomes emerge in reflection that involves a dialectic with the literature.

Besides being consistent with accepted structures, this chapter, together with those preceding it, fulfils another role. It provides the frames of reference (Schon and Rein 1994) or previous foundations of experience (Boud and Walker 1990) or knowledge constitutive interests (Habermas 1973) of a propositional nature, that contribute to my later interpretations in formal thesis reflection related to argument one of my thesis. These later interpretations are recorded in Chapter 5.

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\(^{19}\) This is contained in full in Chapter 1, Section 1.2.
My interaction with the literature in this chapter is bounded by my decision to deal with learning from the perspective of its observable and reportable processes and outcomes. Knowledge of other aspects of learning is expanding, for example as "right brain" function is acknowledged, understood and used (Edwards 1979; Buzan 1989) and as the understanding of personality relative to intuitive learning or knowing (Murphy 1992; Myers and Myers 1993) develops. Learning other than through observable phenomena is, however, beyond the scope of my project and I will not comment on it further. Within this boundary Section 4.2 begins discussion of the topics referred to earlier in this section.

**Section 4.2 Learning how to learn and its link to self-directedness in inquiry**

Learning how to learn is gaining increased support as the means of working with or inquiring into the changes needed in contemporary society. Support for this statement is found in the fields of formal and adult education, agricultural education, psychology, organisational development, management and communication. While learning how to learn is a natural human ability, in the context of these fields it means the explicit development of consciously available learning capabilities. It is the addition at least initially of consciousness of process to counter less effective but practised learning strategies. That less effective strategies are in operation is referred to by Kolb (1984) in relation to experiential learning and by Argyris and Schon (1996) in relation to the foundation of action science.
Ingalls (1973) supports the relevance of learning how to learn when he submits that the rate of change in society raises questions about the viability of teaching to others all that is known. Better he suggests, is to provide others with the means to learn for themselves so that they may learn what they need as they recognise such needs. The consequence he posits, is that learners take more responsibility for what they learn. This concept of self-directedness is strongly supported by Burns (1995), Brookfield (1993) and Knowles (1984) in the field of adult education.

Rogers (1983) produced evidence that supports the notion that student-centred classrooms in formal education enable learning of a higher quality, pace and pervasiveness. His material came from situations where the focus of the teacher was to facilitate learning how to learn by students so it is they who were making choices. Gallagher (1994) develops a similar theme in the field of psychology. He suggests that for ill-structured problems, teachers should help students build and link knowledge structures across domains “... instead of simply providing more and more information (assuming that the learner is merely a sponge sopping up new facts)” (Gallagher 1994 p176). This he contends will shift the focus of education to emphasise the processes of thinking itself.

Bawden (1988) writes of creating a learning environment that reflects the complexity of contemporary agriculture. The learning environment should also provide for the development of competent agricultural technologists who know how to learn. He argues (p151) that changes in the world require attention to “... mastery of ways of finding out knowledge ...” as well as the development of new knowledge itself. Pretty
and Chambers (1994) support the concept of learning how to learn from an extensive practical and theoretical consideration of agricultural situations. Burns’ (1995) ideas of adults at work also support the concepts of learning how to learn although cautioning that while learning how to learn is important for evolving situations, it will not replace other learning - but complement it where appropriate. Revans (1984), writing about action learning and management, recognises the role of creating new knowledge and using already known (propositional) knowledge in problem solving. These authors provide balance in relation to learning how to learn through recognising that learning how to learn is not the only type of learning needed.

Recognition of the need to provide adults with the ability to learn how to learn has extended beyond the fields of education and psychology. Daudelin (1996) writes about organisational development. She submits that providing only “content answers” for managerial problem resolution in organisations establishes a game of ‘catch-up’, and learning how to learn overcomes that difficulty. Revans (1984 p16), arguing the same for management, states that “... programmed knowledge ... is quite insufficient for keeping on top of a world like ours today ...” and that the issues facing managers provide a focus for their learning. Similarly Daudelin (1996) suggests that the day-to-day problems confronting managers can provide the means for them to learn through reflection. Daudelin (1996) and Revans (1984) continue the theme of self direction in learning, in this case focused by the real problems managers face.

In agriculture, Caldwell and Richardson (1995) have demonstrated that farmers preferred material presented in a way that allowed them to direct their attention to their
preferred topics. That is, extension methods that allowed for self directedness in the choice of topic focus and in timing and learning pace were recognised as primary by farmers.

Thus it seems that learning how to learn as an appropriate focus when providing people with skills to use with complex situations is supported by the experiences of these authors. Their material comes form practical situations and their interpretations of theoretical concepts. Dealing with complex situations has application generally as well as to agriculture. Additionally, as argued by Gallagher (1994), Bawden (1990) and Ingalls (1973) it is learning how to learn that provides people with the ability to be self-directed in their life long practice of learning\textsuperscript{20}. Hatcher (1997) provides a description of self-directed learning that clearly involves others, some of whom may be described as learning facilitators, but the learner knows how to learn and chooses learning directions.

Knowing how to learn provides an individual with abilities to adapt to changing circumstances (Kolb 1984) - a notion that Churchman (1971) refers to in his design of inquiring systems, as potential knowledge.

The core notion of my research project with pastoralists was consistent with these observations. It was to have pastoralist farmers learn how to learn through acquiring skills in experiential learning. My notion of having pastoralists know how to learn was to provide them with skills for their use in improving situations. I found no literature

\textsuperscript{20} Others have done so as well, however these three have emphasised learning how to learn for improving situations.
that denied the role or relevance of learning how to learn. However, the literature did not present learning how to learn as the only strategy for change. While the literature recognised the significance of learning how to learn, it emphasised the equal importance of propositional or programmed knowledge (available from others) and practical training in relation to learning (Revens 1984; Zuber-Skerritt 1993; Bawden 1995). These were important considerations in the work being reported here.

**Section 4.3 Levels of learning**

An important aspect of learning how to learn is that of ‘levels of learning’ and authors who have developed concepts related to this include Bateson (1972), Habermas (1973), Watzlawick et al (1974), Kitchener (1983), Mezirow (1991), Bawden (1995) and Argyris and Schon (1996). A level of correspondence and contrast is evident amongst these authors in their discussion of these concepts. An interpretation of their material is presented in Table 4.1.

**Table 4.1** An interpretation of levels of learning made from the work of seven authors

<table>
<thead>
<tr>
<th>Author</th>
<th>A First Level of Learning</th>
<th>A Second Level of Learning</th>
<th>A Third Level of Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bateson (1972)²¹</td>
<td>Learning I where the learner seeks knowledge to correct errors of choice within a set of alternatives.</td>
<td>Learning II where the learner seeks knowledge of the process of learning to provide for change in the set of alternatives from which to choose.</td>
<td>Learning III where the learner seeks knowledge for change in the process of learning II, i.e. change in the system of sets of alternatives.</td>
</tr>
</tbody>
</table>

²¹ Bateson (1972) refers to five levels that he calls Zero learning, Learning I, II, III and IV. Here the three levels of interest for contrast and comparison are levels I, II and III.
<table>
<thead>
<tr>
<th>Author</th>
<th>A First Level of Learning</th>
<th>A Second Level of Learning</th>
<th>A Third Level of Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habermas 22(1973)</td>
<td>Determined by technical interest and involves the learner in seeking knowledge for control. (Making changes to achieve the desired end).</td>
<td>Determined by practical interests and involves the learner in seeking knowledge for understanding the conditions needed for their communications to attain meaningfulness. (Developing understanding).</td>
<td>Determined by emancipatory interests and involves the learner in seeking knowledge about the effect of social, cultural or political conditions. (Including reflection on the context and their assumptions relating to that context).</td>
</tr>
<tr>
<td>Watzlawick et al 23 (1974)</td>
<td>First-order change in which there is change within a system which itself remains unchanged.</td>
<td></td>
<td>Second-order change or one whose occurrence changes the system itself.</td>
</tr>
<tr>
<td>Kitchener 24 (1983)</td>
<td>Cognitive processing or knowing (learning) about a subject or task etc (solving problems).</td>
<td>Metacognitive processing or monitoring progress in first order tasks.</td>
<td>Epistemic processing or reflecting on the certainty, limits and criteria of knowing.</td>
</tr>
<tr>
<td>Mezirow (1991)</td>
<td>Learning involves the learner in understanding an experience in terms of a previously held expectation or a meaning perspective. It then involves the learner in &quot;...sort(ing) through ... the alternative interpretations currently available ... in order to assess what is relevant.&quot; (P12)</td>
<td></td>
<td>Transformative learning involves the learner in reinterpreting an old experience or a new one from a new set of expectations. Transformative learning results in transformed meaning schemes through assessing assumptions. It results in transformation of a meaning perspective when reflection focuses on premises 26.</td>
</tr>
</tbody>
</table>

22 These levels are my interpretation of the way in which the knowledge constitutive interests of Habermas (1973) can be linked to learning, when it is viewed as knowledge development. An example of the interpretation is that at learning level two, learning at a task level is occurring through understanding the conditions needed to make a communication meaningful.

23 Watzlawick et al (1974) used the Theory of Groups and the Theory of Logical Types from the field of mathematical logic to present their ideas about change. In relation to levels of learning I have included this material because of the correspondence that occurs between learning and change.

24 Kitchener (1983) refers to cognitive processing and here I have equated that term with learning in the sense used by the other authors.

25 Assumptions - the act of taking for granted or supposing (Macquarie Dictionary 1996).

26 Premise - a basis, stated or assumed, on which reasoning proceeds. (Macquarie Dictionary 1996).
<table>
<thead>
<tr>
<th>Author</th>
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<th>A Second Level of Learning</th>
<th>A Third Level of Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bawden (1995)</td>
<td>Learning at a task level and in which the efficiency with which the task is completed successfully is the focus.</td>
<td>Meta-learning wherein learning is about how the learning at a task level is taking place.</td>
<td>Epistemic learning is learning about the relationship between the knower and what is known and takes the form of knowing the limits and nature of knowledge.</td>
</tr>
<tr>
<td>Argyris and Schon (1996)</td>
<td>Single-loop learning is instrumental learning. It changes strategies to achieve the same end, ie the underlying values remain the same.</td>
<td></td>
<td>Double-loop learning provides for change in underlying values. It involves change in strategies as well.</td>
</tr>
</tbody>
</table>

The authors cited here work in philosophy, adult education, formal agricultural education, mathematics, psychology and organisational development.

Bateson (1972), Habermas (1973), Watzlawick et al (1974), Kitchener (1983), Bawden (1995) and Argyris and Schon (1996) present similar notions about “first level learning” or learning about the matter to hand without conscious attention to the particular learning strategy in use. At this level learning provides for change to achieve the desired end, through varying the tactics employed. In contrast Mezirow’s (1991) first level deals more with interpreting experience rather than referring to the learning that takes place. He implies no change but infers an increase in understanding of new experiences in terms of already held worldviews.

At a second level Bateson (1972), Kitchener (1983) and Bawden (1995) present meta-learning as learning about the process of learning itself as it occurs at level one. For example, learning about (improving) a situation at this level involves becoming aware
through the experience, that we are unable to deal with a situation because of the strategy (the meta-cognitive process) we are using.

Habermas (1973) directs his attention to developing authentic communication amongst participants in a learning environment. At a second level he seeks to understand the norms underlying interactions. Learning at this level manifests itself for him as "Practical discourse ... a procedure for testing the validity of norms that are being proposed and hypothetically considered for adoption" (Habermas 1992 p103). Within my interpretation of levels of learning he is placing the accent on understanding what is happening among participants through making such understanding explicit to them. This can be interpreted as an element of learning about how learning at level one is occurring through its examination of the norms that are acting to influence level one learning.

Mezirow's (1991) concept of transformative learning is consistent with what I refer to as a third level of learning. It again involves interpretation or reinterpretation of experience with the focus is on forming new sets of expectations, and within them new meaning schemes. Each of the other six authors (Bateson 1972; Habermas 1973; Watzlawick et al 1974; Kitchener 1983; Bawden 1995 and Argyris and Schon 1996) refer to a level of learning consistent with the concept here of learning level three. There is similarity between the change in sets of alternatives given as criteria by Bateson (1972), the second-order change of Watzlawick et al (1974) and within that the particularisation of the emancipatory interest of Habermas' (1973). The double loop

27 I referred in Chapter 2 to the role of epistemological assumptions in determining a methodology.
learning of Argyris and Schon (1996) can be considered at this level because of its attention to the generation of alternatives from outside the existing category.

Bawden (pers comm) further suggests that the three 'levels' can be envisaged as a hierarchy of systems of inquiry. His concept expands the other authors' perceptions of a third level of learning to explicitly embrace the field of systems thinking.

Grundy refers to emancipation\(^28\) in learning when discussing action research modes based on Habermas' categories of interest (Grundy 1982). She highlights the importance of an emancipatory mode stating that “The emancipatory interest means to travel by a different path, rather than to arrive”. She provides for participants to reach an outcome by taking a path that illuminates the emancipatory aspects of their chosen situation (that is, their self-chosen direction for learning). Brookfield (1993) raises a similar issue in relation to self-directed learning. He suggests that it must include emancipation in its concepts and practice, to the extent of activities that draw the explicit attention of the learners in a situation to their emancipatory interests. Such a theme is carried by Chisholm (1990) in the application of action research as a means of learning inquiry in education. Her work suggests that without an emancipatory element to learning, a mainstream action research practice has evolved that does not engage with more recent interpretations of action research in its emerging emancipatory tradition.

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\(^28\) The concept of emancipation is based on the work of Habermas (1973) where he refers to emancipatory interests. Learning at this level involves the learner in seeking knowledge about the effect of social, cultural or political conditions through reflecting on the context.
Brookfield (1993) insistence on the inclusion of emancipation as an explicit aspect of learning suggests that outcomes that persist require the inclusion of aspects of personal and collective development, founded on emancipation in the terms described by Habermas (1973). The outcomes otherwise, may be akin to what Brookfield (1993 p229) suggests can happen in self-directed learning situations in the absence of emancipation. He postulates “... it is quite possible to advocate self-directed approaches in good conscience, only to discover that our efforts have served to bolster the oppressive structures that we thought we were opposing.” Reports by Chisholm (1990) of mainstream action research and anti-sexist action research in education appear to support this possibility. It is to counteract this that the ‘path’ approach of Grundy or the similar concept of ‘critical heuristics’ (Ulrich 1993) in systems practice, seeks emancipatory knowledge in inquiry.

The argument that there is a need for increased attention to emancipatory activities, finds parallels in the development of criticality as a feature of inquiry systems. It is encountered for example with in the tradition of systems thinking and practice (Ulrich 1988; 1993), action research (Carr and Kemmis 1986) and systemic development (Bawden 1995). The need for criticality is articulated cogently in the Frankfurt school of philosophy (Carr and Kemmis 1986; Webb 1996). Criticality provides an opportunity to add the choices that may emerge when the people in the system are aware of what are the emancipatory interests in their situation.

The concept of levels of learning provides a framework for understanding interpretations of learning. I find it useful to distinguish between the three levels of
learning, each with a particular focus that provides a context for the other two. The first level relates to choosing other ways of achieving the same end, within a set context.

The second level is learning within the context about the way in which the learning at a task level is being achieved. The third is where alteration of values and worldviews occurs through development of insights into the nature of knowledge. It is through engagement with this third or epistemic level that the ontological, epistemological and human nature assumptions mentioned earlier are surfaced and reflected upon.

Engagement at the third level enables a focus for significant alterations to how situations are understood and framed \(^{29}\). It is at this level that the significance of values in “lower order” decision-making becomes apparent.

Consciousness of the self is a feature of level three learning and this is consistent with Habermas’ (1973) emancipatory learning where he attends explicitly to the role of the self including reflection on the context and the learner’s assumptions about it that arise from the learner’s ontology, epistemology and human nature.

My interpretation of the literature presented in this section in relation to learning how to learn is that knowing how to learn at each level of the ‘learning hierarchy’ is important. Bateson (1972), Kitchener (1983) and Bawden (1995) have derived their theories of learning from cognitive processing and they detail learning for significant change in two stages recognisable as the shifts between levels. The two stages integrate the three levels of learning where stage one may be understood as initial awareness of an inability to improve a problematic situation because of the “way or ways” being used to

\(^{29}\) In particular there is attention to the assumptions that are being made about the situation.
address or learn about the situation. If conscious action for change to the “way or ways” is taken at that stage it represents learning at a metacognitive level. Stage two occurs when which awareness of the influence of the epistemological frameworks in which we are operating is brought into focus. If conscious action for change to alter epistemic frameworks is taken at this stage, it represents learning at an epistemic-cognitive level.

In terms of the theoretical interpretations made by Bateson, Kitchener and Bawden, my use of Habermas’ (1973) work in the table is a particular “case” of learning at the three levels for emancipation. That Habermas focuses on emancipatory learning is understandable because of his attention to critical theorist philolophy.

Again in terms of the theoretical interpretations made by Bateson, Kitchener and Bawden, my use of the concept of levels when considering the work of Watzlawick (1974), Mezirow (1981) and Argyris and Schon (1996) is based on their attention to change. Whereas Bateson, Kitchener and Bawden deal with the process of how change occurs, Watzlarwick, Mezirow and Argyris and Schon are concerned with the intended outcome.

I believe Level III learning is the key to altering how situations are understood and framed. When I refer to higher level learning later in this thesis it is Level III learning to which I am referring, while recogniding that change in epistemic cognitive processing is accessed through meta-cognitive processing. I chose experiential learning
as a vehicle for accessing higher level learning to enable second order change in problematic situations in the project.

In the next section I refer to the desirability of higher level learning in agriculture, and to how experiential learning can be used to create higher level learning.

Section 4.4 The desirability of higher level learning for agricultural change and the usefulness of experiential learning in creating higher level learning

It is increasingly recognised that agriculture is an immensely complex endeavour where situations exist in which there are no simple problems nor apparently suitable solutions. Seeking improvements in such complex circumstances requires new ways of learning; a situation which extends beyond agriculture. Literature relating to the domains of education and learning, cognitive development, psychology, design, organisational development, sociology, consulting, technology management and community development, provides support for learning as the response to complex situations. The conclusion I develop in this section, based on literature from the domains referred to, is that learning as experiential learning offers access to higher level of learning as a foundation for changes (improvements) in complex issues.

Vanclay and Lawrence (1995) are among those who have written about the environmental imperative in Australian agriculture and the need to act or inquire differently into the industry’s complex problems. Graetz (1994) too suggests that there
is a need for change in the management of Australian agriculture. He has reflected on the past to make a judgement of the fluctuating fortunes of the wool industry to illustrate his arguments. He suggests that the wool industry is "... but one example of the poverty of management that pervades much of land use in Australia" (p244).

Bawden (1990) has argued the case for multiple worldviews in agriculture and rural development while emphasising the limitations of the prevailing positivist paradigm. Webb (1996) suggests that challenging the positivist paradigm as the only one for thinking about society is what prompted critical theory development. Pretty (1994) too submits that a positivist paradigm is but one of a number of frames through which to view the world. He emphasises the point that the existence of other paradigms and methodologies does not designate a need to choose one or other. He suggests that "..... we need to reform the way we think about methodologies for finding out about the world" (Pretty 1994 p39).

A similar message of integration of paradigms rather than choosing one or other when dealing with the complex issues of society is a significant point made by Parks (1997) in describing the role of humanistic psychology. Both Parks (1997) and Pretty (1994) advocate that the context should determine the paradigm in which inquiry takes place and the methodology chosen and in so doing, reinforce the case for higher levels of learning.

The idea of context-dependent paradigm and methodology selection seem appropriate when issues that confront people can range from relatively simple production puzzles to
the complexity of development paradoxes. Ill-structured problems or paradoxes are ones for which there are opposing or contradictory evidence and opinion (Kitchener 1983; Churchman 1971). Bawden (1990) proposes that experiential learning strategies are most appropriate for learning how to manage change and that this is particularly so for the complex or ill-structured problems such as we encounter in agriculture. This proposal is supported from Kolb (1984 p32) who identifies experiential learning as "...the major process of human adaptation".

Of particular significance here is the influence of values as vital aspects of the governing variables or frames that direct the learner's attention to desired ends in development (Argyris et al 1985; Schon 1983). I referred to this earlier in the section on levels of learning. Dick and Dalmau (1991) refer to governing variables as governing values. Vickers recognises them as value judgements, which together with reality judgements combine to produce what he terms appreciative systems (Checkland and Casar 1986). These appreciative systems provide the perspective from which individuals act when they encounter a situation and the combination of reality judgements and value judgements reflect choices about the way such situations should be encountered. Thus changes in the governing values required for higher level learning involve change both in the apprehension of the concrete experience and in the way that values determine its conceptual comprehension.

Emerging issues of agricultural development emphasise the importance of access to different appreciative systems or paradigms because of the complexity of those issues. Thus Fitzhardinge (1994) has made specific reference to complex problems in the
rangelands of Australia - the area in which the pastoralists in this present project manage land. He writes that our understanding of the resource is sound, but that we require a changed paradigm for maintenance of biodiversity and for sustainability or persistence as Bawden (1995) prefers. Kersten and Ison (1994) suggest that ecological and social sustainability can emerge from valuing human diversity through operating in a constructivist paradigm that provides for co-researching relationships. Fitzhardinge (1994), like Vanclay and Lawrence (1995), suggests that attention needs to shift in order to embrace aspects of the social system in the development of new approaches to the complex problems of rangelands. Butler (1995) has reported similar complexity of issues and the need to change in the United States rangelands. He has recognised the requirement for attention to the social system by particularising the necessity for understanding how communication occurs amongst decision makers of rangeland use.

Vanclay and Lawrence (1995) also argue for attention to be paid to the sociological aspects of such issues while submitting that current thinking patterns are inadequate to provide an understanding of the complex problems involved. Campbell and Junor (1992) concur with this view. They derive their argument from an examination of some programs that involved social elements and which led to landuse improvement in the Landcare movement. At an applied level Stubbs et al (1997 p41) write that “Effective and efficient rural extension services demand specific competencies related to ... communication and attitudinal skills, which may not be the same as those required by extension practitioners operating in the historic role of extension.” In support of this they refer to their survey material showing practitioners, employers and clients of rural extension practitioners recognising the need for extension practitioners to have
knowledge of the functioning of ‘rural families, communities and organisations’ and human behaviour. These competencies are related to including sociological dimensions in agricultural extension practice and require a change in the ‘historic’ paradigm of extension.

But paradigms-cum-appreciative systems are very difficult to change. Pretty (1994) recognises this when he posits that the positivist paradigm in agricultural development is “... so pervasive that, by definition, those inside it cannot see that alternatives exist” (p38). In educational research Melrose (1996) appears to have recognised this phenomenon. To make researchers aware of it she developed a tool to self-assess between the paradigms of functionalism (positivism), transactionalism and criticalism.

Vanclay and Lawrence (1995) argue that extension agencies in agriculture have largely maintained attention on traditional paradigms focused towards technically framing the problematic situations. Campbell and Junor (1992 p21) support this argument when they claim that “... despite the limitations of the linear, one-way [diffusion] model [of extension], research and advisory structures are still largely based on it.” The survey of required competencies for extension practitioners (Stubbs et al 1997) shows practitioner, client and employer recognition of the need for change.

The debate extends beyond agriculture. Martin (1989) for instance, has suggested that in the field of clinical psychology a broadening of the range of methodologies available to practitioners is desirable if their practice is to benefit from their experience. Yet there is considerable resistance to such a change. Dick (1991) and Bish and Dick
(1992) in seeking to increase access to other methodologies in a fourth year psychology program, found that others were not supportive because, "[As] An experiential and skills-oriented course, it sits a little uneasily within a traditional university [experimental science] psychology program" (Bish and Dick 1992).

Dearing (1993) has raised a similar issue in the field of technology management. He refers to homophily or the degree to which people are alike and its positive effect on trust and acceptance. Homophilites however, tend to be aware of the same information and a single paradigm tends to prevail. It is heterophilites who are more likely to act differently to each other (Dearing 1993). The significant issue where change is being sought is participation that allows involvement by those with alternative paradigms. Espejo (1993 p517) supports participation in business development on the grounds that its absence is "... inhibiting a truly distributed response in which everyone is involved in creating their future ...".

Pretty (1994) too argues strongly for participation as central to the process by which people learn to deal with complex problematic situations in agriculture. Participation\(^{30}\) is also a significant aspect of the method suggested for improved technology transfer by Gregory (1994). Even Douglas (1996), who criticises the average woolgrower for allowing a lack of uptake of technology to leave them 50% behind possible productivity, includes increased participation by woolgrowers in research and development to change the level of adoption. However while the other authors to whom I have referred place participation highly, Douglas (1996) places it fifth on a list

\(^{30}\) Participation that includes recognition of the sociological dynamic of complex problems involving humans.
of five key points. Through participation Douglas (1996), Pretty (1994) and Gregory (1994) seek to include the sociological dynamic of change. Pretty’s (1994) and Gregory’s (1994) reason for its inclusion is their belief that forms of inquiry founded on epistemologies other than the current most used one of positivism can yield information for use in agriculture that is agreed upon as relevant in the context of agriculture.

Experiential learning, although a personal process, can be used in social contexts to achieve “community learning”. The work of Macadam (1994) with agricultural communities in the Philippines and in Nepal (Macadam 1995) exemplifies this aspect. Experiential learning has the potential for use in agriculture (Macadam 1994, 1995). Through experiential learning, experiences can be shared and new abstract conceptualisations co-generated at all three levels of learning to create the dynamic and critical learning systems referred to by Bawden (1995). In such situations experiential learning means groups of stakeholders learning their way through problematic situations together.

The matter of criticality is important here. Lawrence et al (1992) have challenged the use of experiential learning in systems approaches to agriculture. They have made the challenge in their advocacy of increased emphasis on sociology to improve difficult agricultural situations. They argue that in prompting farmers to be the generators of their own futures (which experiential learning does) there are external structural forces that pre-empt success. They claim that the self-discovery that experiential learning offers does not necessarily deal with other personal and family constraints. They suggest that it lacks a political action focus and that it accepts current legitimacies.
Where there is inattention to the critical dimensions of experiential learning this is a significant critique. Here Brookfield’s (1993) call for increased criticality in self-directed learning is relevant. It is his submission that adult education is lacking in promoting its potential for political action where there is an absence of criticality. Such claims may have some validity in particular applications by specific users of experiential learning and this could have been the case in some aspects of my own project work. However, it seems open to question that they are present in the foundation of the experiential learning methodology. One reason for this is the emphasis on participation practised by Macadam (1994; 1995) and Gamble et al (1995) that goes beyond only farmer involvement. A second is the accent on criticality proposed by Bawden (1995) in his use of the experiential learning methodology from a systems perspective of self-referentiality. A third is in the more recent writing of Kolb (Wolfe and Kolb 1991) that refers to an individual’s ability to influence external environmental factors of their lives through the process of experiential learning. Here they mention particularly occupational and family circumstances.

Criticality is not an innate feature of the experiential learning process and its inclusion needs to be recognised and promoted. Participation is important in this regard, particularly to enhance heterophilic communal involvement. In such situations the exchanges between participants are based on shared experiences and shared meaning. However, Argyris et al (1985), Argyris (1990), Dick and Dalmau (1991) and Argyris and Schon (1996) suggest that any change or higher level learning may rely on the exchange of valid information. On that basis it seems that the literature largely supports experiential learning that includes participation and criticality as a means of
developing higher level learning outcomes for change in complex agricultural situations.

Argyris and Schon (1996) and Dick and Dalmau (1991) have argued the need for valid information in the field of organisational development, where participation and shared learning play key roles in inquiry for higher level change. The requirement for valid or authentic data “... that resonates the life experience of the researched and researcher” is also the claim made by Hall (1996 p29) for emancipatory action research. Similarly I suggest that if experiential learning is to prove sufficiently powerful to generate persistent change (Bawden 1995) and true participation (Pretty 1994) as an inquiry methodology in agriculture, it requires the exchange of authentic or valid information. Argyris and Schon (1996) and Dick and Dalmau (1991) suggest that action science offers a perspective for delivering valid information.

The literature in this section highlights agriculture’s need to generate change in complex problematic situations, and that using paradigms of inquiry that suit the context will contribute to higher level learning outcomes or change. It seems that experiential learning provides a means of developing relevant change and that attention to participation and criticality accommodates questions raised about its appropriateness. A condition that may impact on the achievement or otherwise of change through experiential learning is access to valid information in exchanges. This matter of validity is influenced by what might be termed positions or states of cognitive development, and it is to this that I now turn.
Section 4.5 Cognitive development and higher level learning

In the previous sections I established the apparent benefit of higher level learning as a means of generating change related to complex farming issues. I now consider literature related to the cognitive requirements for achieving higher level learning.

From the literature it appears that cognitive development contributes to what have been referred to as epistemic positions (Salner 1986) and that these influence an individual’s ability to develop and use higher level learning outcomes.

I concluded the previous section by making a point based on the work of Argyris and Schon (1996) that valid information used in experiential learning is a prerequisite for developing higher level learning related to improvement in complex agricultural situations. The provision of valid information in the experiential learning process may not of itself lead to effective experiential learning because the acceptance of experiential learning as a means of learning may vary for different individuals. Ellis and Kruglanski (1992) suggest that people will find experiential learning useful if they have a high self-ascribed epistemic authority for themselves. That is, the people involved believe that their own learning outcomes are worthwhile in the situation. Others with a high perceived “authority-gap” would benefit more from an external ‘expert’ insofar as they believe that others in this situation hold knowledge that is more worthy than their own. Ellis and Kruglanski (1992) are referring to the epistemic cognitive position individuals holds about the sources of improvement available for the situation confronting them. Munby and Russell (1993) report a similar phenomenon in
teacher training, where some trainee teachers wanted to be told how to act in the authority position of teaching and some did not.


Given that epistemic development can influence the fullness of involvement in experiential learning it appears to be important to incorporate activities that promote cognitive development into experiential learning as promoted by Wolfe and Kolb (1991).

Cognitive development theorists propose that humans' epistemic ways of interpreting the world change through experience with the world, and that this occurs through, "..... basic transformations of cognitive structure ..." (Kohlberg 1969 p348). Kohlberg
(1969), Perry (1970) and Piaget (1972) are among the theorists who have studied
cognitive development. Kohlberg (1969 p348) proposes that theories of cognitive
development postulate a representational "... process intervening between stimulus and
response." Vickers' concept of appreciative systems (Checkland and Casar 1986) and
the governing variables of Argyris and Schon (1996) are consistent with this notion of a
mediation process between stimulus and response.

Merriam and Caffarella (1991) link basic transformations in cognitive structure to
interactions between maturation and environment. Gould (1972) maintained that
mainstream cognitive theories propose the transformation occurs in phases or stages.
The theories propose that the direction of development through stages is "... towards
greater equilibrium in the organism-environment interaction ..." (Kohlberg 1969 p348)
or "... as outcomes of creative reorganisation of an existing cognitive inventory that is
inadequate to the task of handling certain persistent problems" (Habermas 1992 p123).

The all-embracing validity of earlier cognitive development theories is however being
questioned. Questions relate to their predication upon interpretations based on
predominately male development and use which is evident not only in the writing of
cognitive development but also in fields like phonological and morphological speech
patterns in management situations (Case 1993). Gilligan (1982 p2) for example, in
relation to development argues that "The disparity between women's experience and
the representation of human development, noted throughout the psychological
literature, has generally been seen to signify a problem in women's development.
Instead, the failure of women to fit existing models of human growth may point to a
problem in the representation, a limitation in the conception of human condition, an omission of certain truths about life.” Lugones and Spelman (1983 p578) raise the issue from a feminist perspective when they report that “Feminists have been quite diligent about pointing out the ways in which empirical, philosophical moral theories have been androcentric31.” Caffarella and Olson (1993) and Peck (1986) have also questioned male dominated studies or the interpretation of cognitive development of women by men. The contentions made by these authors are supported in Gilligan’s (1982) data that shows the preponderance of males in cognitive development studies.

More recently, Merriam and Caffarella (1991) have posited that questions about cognitive development are revealing that evidence is emerging of further stages. Caffarella and Olson (1993) in reviewing the literature of women’s psychosocial development expand this to embrace the idea of non-linearity of movement in relation to stages. They are continuing a theme expressed by Peck (1986) of recognition of timing-of-events as the instigator of stages rather than only age-relatedness.

The presence of stages in development is however not questioned by these authors. This is so even though the questioning of androcentricity appears soundly based and reasons for providing for attention to gender32 and other groupings in interpreting development are presented (Gilligan 1982; Lugones and Spelman 1983). Support for stage-development is evident in the writing of Flavell 1982; Gilligan 1982; Peck 1986; Hauser et al 1991; Merriam and Caffarella 1991; Habermas 1992; Caffarella and Olson

31 Centred on the male rather than the female.  
32 Alexopoulos and Driver (1997) have referred to the more widely experienced gender differences in their work studying gender differences in small group discussions about physics.
1993. Even Courtenay (1994), who questions the role of adult development models in adult education, recognises that stages exist. There is however evidence that non-linearity provides for interchange between stages in any direction (Merriam and Caffarella 1991; Peck 1986; Caffarella and Olson 1993). Peck (1986) uses a spiral in her model to accommodate this.

While there are differences in definition and interpretation of cognitive development it appears useful to acknowledge that stages occur in some form and to link these stages to the way that individuals interpret the world.

The material of Wolfe and Kolb (1991) provides a review of the literature on cognitive development particularly relating to experiential learning. Although lacking specific reference to female development, their summary supports my interpretation that stages occur. As well, their review supports non-linearity (that is progression and regression). Their interpretation also suggests that experiential learning can most usefully be a democratic learning process that, as Caffarella and Olson (1993) submit, allows for different cognitive development models.

Chisholm (1990) argues that it is a dualistic view of the world that is limiting action research in its effectiveness in sociological areas such as anti-sexist education and is making action research vulnerable to political actionism. "In other words," she argues, "we have not succeeded in jumping out of a paradigm which can only encompass research as separated from praxis in the first place. Action research is effectively engaged in trying to integrate what is, as a result of the [dualistically] way we look at
the world, non-intergratable’ (Chisholm 1990). She appears to be suggesting that the gap cannot be bridged, but only recognised.

Salner (1986) links learning to stages in cognitive development and an individual’s views of the world. Such a link may provide for the shift that Chisholm (1990) seeks for action research to take it away from a dualistic worldview that separates research and praxis. Salner (1986) identified the necessity to develop an epistemological position of relativism before skills in systems studies could develop. On that basis it seems that if double loop learning (Argyris and Schon 1996) is to alter frames of reference, then as Kitchener (1983) shows, cognitive positions of duality and multiplicity are inappropriate. These positions foster single loop learning through dualism’s ‘one or other only’ approach and multiplicity’s ‘unlimited possible alternatives’ lack of criticality. In Perry’s (1970 p177) work these two stages include ‘growth’ in which, ‘..... a person may suspend, nullify, or even reverse the process of growth as our scheme defines it.’ That this occurs is understandable from Dick’s and Dalmau’s (1991) ideas of responses to dissonance ranging from denial through compartmentalisation and reinterpretation. All of these constitute rejection of the possibility of change at some significant level. Wolfe and Kolb (1991) also recognise rejection of opportunities of higher level learning or change.

An interpretation from the foregoing is that higher level learning requires a cognitive position of an epistemology embracing relativism (Kitchener 1983; Salner 1986). When this happens the situation is viewed from other perspectives to determine its relative context, thus making higher level learning possible. To wait for this to develop
‘naturally’ (from the interplay of maturation and environment) for individual farmers may be inappropriate for an extension officer working with them. Here Wolfe and Kolb’s (1991), Altrichter’s (1991) and Salner’s (1986) ideas are relevant. They suggest that exposure to the skills of experiential learning will contribute to the development of the needed epistemological position. There is support for this in a practical example by Oja and Smulyan (1989). They found that teachers exposed to different epistemological assumptions (held and expressed by others) and alternate ways of operating, progressed in recognisable cognitive development stages such as those elaborated by Perry (1970). Acting to expose learners to different epistemological assumptions is consistent within the approach of Lewin (1946) in taking action to see what happens and reflecting on the action to learn about the situation. The likelihood is that the person encounters the situation of other epistemic positions and the encounter influences their epistemic position. This is consistent with the concept of experiential learning where the non-holding of such an epistemic position does not preclude involvement in experiential learning. The reason that “non-holding” should not limit involvement is that the experience itself can generate the development of such a cognitive position.

There appears to be no significant body of literature that suggests that experiential learning cannot provide either the generation of higher level learning or the epistemic shift needed to accommodate higher level learning for change. Indeed Henry (1989) refers to the plurality of understanding of experiential learning as a practice, but with that plurality centrally involving real-life experiences and reflection such that the potential of it is for ‘the development of higher cognitive goals’ that provide for the
generalisation or transfer of learning. A possible situation where experiential learning would not lead to cognitive development may arise in Ellis and Kruglanski's (1992) reference to an authority gap where all problematic situations an individual faces are referred to an authority. However, I have reported literature that suggests that involvement promotes epistemic development. Smith and Berg's (1995) emphasis on the need for psychological safety in the environment in which experiential learning occurs might also be construed as a challenge to experiential learning as a means of promoting cognitive development. They maintain that psychological safety is the foundation upon which experiential learning in group settings takes place and suggest that without it, exploration of other ways of being will not occur.

In summarising this section on cognitive development and higher level learning I recognise a number of significant points. The first is that higher level learning, from the perspective of experiential learning, represents change in the underlying assumptions made about a situation and that experiential learning provides for change in the perception (framing) of the situation. It can thus provide for possible outcomes that would deliver improvement. A second is that to achieve change and improvement requires a cognitive epistemic position that allows for the existence of different frames. Additionally it seems that the literature suggests that experiential learning can provide for shifts in cognitive epistemic positions.

A theme running through the literature on shifts in cognitive positions is that as situations arise, individuals think [reflect] on them to create new integrations [learning] (Kohlberg 1969; Perry 1970; Wolfe and Kolb 1991). Wolfe and Kolb (1991) suggest
that the opportunity for reflection is accommodated within the experiential learning process. For that reason and because experiential learning is an integral part of my thesis, I refer in the next section to reflection in experiential learning as I continue to interact with the literature.

**Section 4.6 Reflection as a part of experiential learning**

In this section I

* define reflection and identify the types to which I am referring;
* position the role of reflection in experiential learning through linking it to higher level learning;
* consider the calls being made for critical reflection, and
* consider an individual’s reflective capabilities in relation to their epistemic organisation.

**Section 4.6.1 Defining reflection and identifying types of reflection**

Boud et al (1985 p19) suggest that reflection is, "... an important human activity in which people recapture their experience, think about it, mull it over and evaluate it."

They suggest that reflection develops as a human capacity to different stages in different people. Additionally they refer to the fact that it can be both an individual and group activity. They also suggest that it is often lacking in learning situations. In a practical setting of organisational development, O’Neil and Marsick (1994) refer to a general lack of reflective practice occurring in organisations. Experimental evidence
presented by Sterman (1989) on his work with managers also highlights its lack. He claims they were ‘insensitive’ to the feedback they received from their decisions.

Again with managers, Bunning (1996 p56) found that in an action researching project, they referred to the fact that they “... had no time to sit around reflecting”. The lack of desire to engage in significant, meaningful reflection even as a part of action research, is now being recognised. Zuber-Skerritt (1996a) has reported it in organisational and staff development contexts and she suggests that lack of reflection will be a barrier to the development of learning organisations.

Mezirow (1991) has referred to the lack of attention to reflection in adult learning literature and he refers to a number of significant studies in which there is little or no mention of it.

Mezirow's (1991 p100) theory of transformative adult learning includes reflection as “... involving a review of the way we have consciously, coherently and purposefully applied ideas in strategising and implementing each phase of problem solving.” His material refers, like that of Boud et al (1985), to the after-the-event activity of reviewing (reflecting) during an ‘hiatus’ in the action process.

Reflection of this type is an after-the-event activity or reflection-on-action. Boud et al (1985), Habermas (1973) and Mezirow (1991) refer to it as such explicitly. Bawden (1990, 1995), Schon (1983), Carr and Kemmis (1986), Brookfield (1987), and Oja and Smulian (1989) do so by implication. They do so in the way they offer their descriptions of what happens in activities that involve reflective learning. Reflection-
on-action requires time for learners to process their experiences before moving on and in that way attention focuses on the insights and the learning outcomes made from the experience (Boud and Walker 1990).

Schon (1983) has identified knowing-in-action (the action a practitioner or person takes in a situation) as a tacit form of knowledge and terms it as 'know-how'. He posits that “There is nothing in common sense to make us say that knowledge consists in rules or plans that we entertain in the mind prior to action” (Schon 1983 p51). From that basis he develops the idea of reflection-in-action. This is adjustments made by the practitioner while operating (practising their practice in Bawden's (1990) terms) to optimise their activities. It thus happens within the context of the situation based on their accumulated knowledge. He terms it 'professional artistry' and suggests practitioners display it as competence in dealing with, “... unique, uncertain and conflicted situations of practice” (Schon 1987 p22). Boud and Walker (1990) also recognise the concept of reflection-in-action generally. Munby and Russell (1989) recognise reflection in a similar way for teachers where they note that it leads to an elevated level of professional knowledge.

Argyris et al (1985) and Mezirow (1991) propose the idea that reflection takes place whenever a person finds that strategies that they assumed would produce an outcome, fail to do so. The idea of having strategies available, introduces the idea of planning as a type of reflection. Dick (pers com) says that planning can be a form of reflection before an event. He suggests it can lead to insights about the situation and the planner personally. He also suggests that pre-event reflection can be based on questions about
features of the situation, the outcomes being sought, and the action the planner expects will yield the desired outcome. In a practical situation it moved planners from tacit understanding to conscious understanding. Boud et al (1985a p9) also refer to the element of reflection in planning when they refer to reflection in the “preparatory phase” of learning activities. Mezirow (1991) links cognitive development in adults to the outcome of reflective activities and the ability to act on the insights gained from them. This appears to be consistent with Vygotsky’s concept of proximal development (in an adult application) using Doolittle’s (1995) relationship of development in response to co-operative learning activities. Such a use of reflection in cognitive development, as is suggested by Mezirow (1991) and Doolittle (1995), places individuals in the mode of attending to cognitive development as a self-reflective (or internal) practice and this is supported by the ego development work of Hauser et al (1991) with families.

Figure 4.1 shows a diagrammatic representation of reflection types developed from the material of Boud et al (1985), Boud and Walker (1990), Schon (1983; 1987), Mezirow (1991) and Dick (pers comm).
It appears that there are two well recognised forms of reflection. One occurs after the event and operates through conscious attention to a previous event - it is reflection-on-action. The other is an unconscious or conscious act that takes place while the event is occurring - it is often termed reflection-in-action. A third form has been referred to here as before-the-event reflection and relates to planning. The reflection which I will be referring to in Section 4.6.2 will be reflection-on-action which directs conscious attention to a previous event and enables the 'reflector' to make sense of that situation, *ex post facto*.
Section 4.6.2 Positioning reflection in experiential learning and linking it to higher level learning

With reference to the dimensions of his experiential learning model, Kolb (1984 p58) argued that "The second is a transformational dimension, which includes two dialectically opposed modes of transforming experience, one via intentional reflection, the other via extensional action."

Intention in this model involves reflection on observations. Bawden (1990; 1995) has referred to the role of reflection on this dimension in discussing his proposition for attention to learning as a thrust to deal with complex problems. However, he like Kolb (1984) and Wolfe and Kolb (1991), recognises the need to operate on both dimensions and in all four adaptive modes for situation improvement. Kolb’s (1984) reasons that each mode is ‘equipotent’, that is they are each important to the emergence of learning. Bawden (1990; 1995) has provided meaning for the role of reflection in experiential learning. He uses the work of Maturana and Varela to remind us that the way we each see the world determines what we choose to attend to in the world. From this perspective he has developed the suggestion that to be effective as experiential learners we each need to ‘address’ [reflect on] our style. Addressing our style is understandable in terms of reflecting on how we each learn. Such an expression bears similarities to Kitchener’s (1983) discussion of the role of meta-cognition in monitoring cognitive tasks and amending them where warranted.
Boud and Walker (1990) place more emphasis on reflection than on other aspects of experiential learning. They offer similar suggestions to Habermas (1973), Argyris et al (1985) and Schon (1983) in suggesting that reflection can offer insights into the foundations of the learners’ beliefs about themselves and the world, as well as the situation under scrutiny. In a formal educational setting, Bish and Dick (1992) have developed a repertoire of reflection activities that provide for explicit attention by learners to what they are learning. They have developed these through their own professional reflection.

Thus it seems that this group of authors differs from Kolb (1984) position of equipotency of learning modes in their preparedness to suggest that reflection may hold a position of particular importance in learning. The material they present, provides for attention to reflection in two possible ways. One relates to reflection as a general tool while the other is reflection in which the learner assumes a more critical position and considers their own role in the situation. Kember et al (1997) argue that critical reflection provided a learning outcome of fresh insights at a personal level. Similarly Bawden (1995) and Brookfield (1992;1995) support critical reflection for significant higher level learning or change in the development of theoretical positions on learning.

Vanclay and Lawrence (1995 p47) argue that the lack of reflection is a crucial aspect in their assessment of environmental practices. They report that in the conventional productivity-based model of agriculture “... scientists and farmers ... rarely question the productivity drive which underlies modern framing practice.” The implication they make is that reflection, with or without its critical elements, is not occurring in this
situation. It is in complex situations of this nature that reflection in experiential learning could play an important role in learning from past farming experiences so that changes are persistent\textsuperscript{33} (Bawden 1995) and increasingly effective over the long run (Torbert 1983).

The addition of criticality to reflection provides for an extension to the types of reflection illustrated in Figure 4.1. Figure 4.2 shows the extended diagram.

Figure 4.2 Reflection types extended to include critical reflection

\[\text{REFLECTION}\]

\[\text{ON ACTION}\]
- Before the event
  - Conscious

\[\text{IN ACTION}\]
- After the event
  - Conscious
- During the event
  - Unconscious
  - Conscious

\[\text{CRITICAL}\]
- Of self
- Questioning of presuppositions
- Of world

\[\text{33} \text{ My interpretation of Bawden's (1995) persistence is one of the change not necessarily being permanent but rather that it is not a damaging one that future change will need to rectify. Rather in the future it provides a foundation for changes that are themselves not damaging.}\]
Section 4.6.3 Critical reflection

Critical reflection is a term referred to by a number of authors writing about reflection and learning. They present it as the reflective situation in which the learner explores his or her own role in the situation. Systems approaches need it, argues Ulrich (1993 p586) because “Moral judgment has been eliminated from our concepts of rationality as far as they are actually built into existent scientific and systems methodologies. And yet it is the very task of ethics - more so than of any other kind of reflection and argumentation - to strive for a comprehensive justification of good and ‘right’ actions.” Habermas (1973) is another for whom critical reflection is reflection into the role of the self in the situation. In nursing education Burrows (1997) has reviewed literature to interpret the same personal emphasis on critical reflection in the particular field of facilitation. Applied material to support such a conclusion is available from a managerial perspective from Sterman (1989 p338) who shows evidence of poor quality (non-critical) reflection producing poor decisions in organisational settings. His claim of managers who failed in a simulation of inventory control activity is that “... by attributing the source of change to external factors [external to themselves], people’s mental models led them away from the true source of the difficulty ... allowing dysfunctional (managerial) performance to persist.” Critical reflection may well have a role at that level, as well as at that referred to by Ulrich (1993).

It is Habermas’ writing and his attention to emancipatory interests to whom a variety of authors refer as a philosophic source for their attention to critical reflection. Examples

These authors also emphasise critical reflection and its link to higher level learning. For Mezirow (1991) the link is through access to personal meaning perspectives. For Argyris et al (1985) it is recognition of discrepancies between personal espoused theories and theories in use. In the writings of Kemmis (1996) and Carr and Kemmis (1986) critical reflection provides for emancipation from distorted self-understandings. Bawden’s (1995) version is the development of critical learning systems. For Ulrich (1993) it is a part of critical holism\textsuperscript{34} and critical heuristics\textsuperscript{35} to question personal perspectives. For Brookfield (1987) it is critical questioning of personal assumptions and critical reflection on personal teaching practice (Brookfield 1995).

In a field of practical applications of critical reflection related to recovery processes\textsuperscript{36} Eastland (1994) submits that Habermas’ concepts of critical reflection are essential for the higher level learning needed for behavioural change.

Few of these authors however refer to the traumatic impact of critical reflection and the need for support for people undergoing critical reflection phases. Brookfield (1994) is an exception here as he recognises the personal challenge which critical reflection presents, and highlights the way graduate programs encourage critical reflection. From

\textsuperscript{34} Critical holism is the grounding of systems thinking (looking at the whole) in a practical philosophy (Ulrich 1993).

\textsuperscript{35} Critical heuristics for Ulrich (1993) refers to an approach unifying practical philosophy and systems thinking in an epistemology that has a clearly defined framework.

\textsuperscript{36} Recovery processes refers to processes used in programs such as the Adult Children of Alcoholics and Narcotics Anonymous. They are designed to develop behaviour change in addicts and those in relationships with them.
a phenomenographic study\textsuperscript{37} he presents the evidence of distress accompanying critical reflection for a group of adult educators. He suggests that it is appropriate for those encouraging others to critically reflect, to themselves become critical learners about critical reflection. He claims that in doing so they can act usefully and sympathetically with others in critical reflection. Benefits are possible from the facilitation of critical reflection, through the facilitator participating in his/her own critical reflection while interacting with the others. The potential benefit comes from the sharing of the facilitator's experiences as a means of modeling critical reflection and creating common ground for dialogue about critical reflection.

The traumatic impact of critical reflection and the difficulty of its application may offer a contributing reason why behaviour is usually difficult to change. It may even explain Bunning's (1996) observation that making time available for their own reflection is rejected by managers.

My interpretation of this literature is that critical reflection provides for individuals to explore their own role in problematic situations. The literature provides a philosophical and a practical basis for this suggestion. Critical reflection makes a significant contribution to higher level learning because it is reflection on the role of the self in the situation. However, critical reflection is personally challenging, and modeling critical reflection offers a beneficial role for a facilitator. The literature referred to in Section 4.5 emphasised that individuals are influenced by their epistemic positions. Therefore, if critical reflection involves exploration (or inquiry) of individual/personal roles in

\textsuperscript{37} In this case studying the phenomena of critical reflection.
situations, then the epistemic positions individuals hold may influence their ability to critically reflect. In the next section I consider literature related to critical reflection and the epistemic positions of individuals.

**Section 4.6.4 Critical reflection and an individual's epistemic organisation**

In Section 4.5 I presented cognitive development as related to a person’s epistemic abilities in cognitive processing (Kitchener 1983). It appears that it may also influence an individual's abilities to critically reflect. Alternatively, it may be that in affecting a person’s ability to reflect, cognitive processing may influence a person’s cognitive development.

Consideration of this can begin by reference to Kitchener’s (1983) condensing of Perry’s (1970) material to three positions of epistemic organisation. They are duality, multiplicity and relativism. In an epistemic organisation of dualism (Perry 1970) the elements are right and wrong only. When right-wrong duality presents as ‘I (the reflector) am unquestionably right’ it appears that critical reflection and its questioning of underlying values and assumptions would be difficult. Habermas’ (1979) definition of moral stages at the ‘preconventional level’ is similar to duality and provides additional understanding of the difficulty. For Habermas it is again right or wrong, but also punishment and reward and satisfying one’s own needs before those of others, that predominate as epistemological assumptions. The added understanding is that satisfying one’s own needs and avoiding punishment represent restrictions for learners trying to critically reflect.
Perry's (1970) position of multiplicitic epistemic organisation is one of acceptance of equal value for each individual's opinion as an epistemology of practice. This position also reduces the opportunity for developing a truly critically reflective stance insofar as the reflector assumes that his/her beliefs are as legitimate as any others. On that basis questioning the role of self seems less necessary. Habermas (1979) defines a similar position to multiplicity as the 'conventional level' where unquestioned conformity or loyalty to an individual's own expectations prevails. At such a level it is difficult to envisage the reflector critically reflecting to question his/her 'unquestionable expectations' that are of 'equal value'.

With an epistemically organised position of commitment in relativism (Perry 1970) however it appears that the situation changes to one where critical reflection becomes possible. In this epistemic position, Perry (1970 p257) refers to “An affirmation of personal values or choice ...[through] ... a process of orientation of self in a relative world.” Later he classifies it as involving alternation between reflection and action. Perry's attention to developing commitment through self-orientation in relation to personal values seems to be consistent with a concept of critical reflection that questions personal values.

Again the writings of Habermas (1979) support this. Habermas' highest level of moral stages is the 'principled level'. He describes this as one where an effort is made to define moral values and principles that can claim external validity (validity that doesn't come only from the authority of the group or persons holding the principles). At the principled level validity is separate to the reflector's own identification with these
people or groups. Like Perry (1970), Habermas (1979) draws attention to the role of individuals in developing a position about a situation to which they consider themselves contributing i.e. in which their own role is considered or reflected upon. It is this attention to their own values and principles that makes this position more likely to provide for critical reflection.

Reflection is the means whereby we can elucidate for action what Habermas (1973) has called technical, practical and emancipatory interests. In doing so reflection to produce technical change or prudent action can be served by reflection that may not include self-exploration. However, reflection for emancipation, that is critical reflection, is not possible without attention to reflection about the role of the self.

Argyris et al (1985), Argyris and Schon (1996) and Dick and Dalmau (1991;1992) propose that others can have a role to play in making an individual’s reflection possible. They have developed activities to do this that identify incongruence in theories of action. Brookfield (1992) also offers activities involving others to uncover assumptions through reflective practice using role plays, critical incident analysis and the like. Schratz (1996) has used memory work as a collective research method to promote self-critical reflection. This idea of involving others in our reflections as a means of dealing with the ‘self-delusory’ aspects of individual reflection, was recognised by Habermas (1973). In Argyris and Schon’s (1996) terms, it deals with the incongruencies of our action theories. However, introducing others into the reflection creates a social dimension to reflection. The social dimension requires attention to relationships (Bish and Dick 1992; Dick and Dalmau 1992) among reflectors and that aspect may affect the
reflector's (learner's) ability to learn. Reflection with others adds the dimension of interpersonal relationships. For that reason the way individual's mentally 'construct' their social relationships can influence learning.

To summarise this section on critical reflection, the literature suggests that a person's epistemic cognitive position mediates their ability to critically reflect upon a situation of their own. A position akin to Perry's (1970) commitment in relativism is one that appears to most readily support the suggested criticality. As well, critical reflection is important in providing for higher level learning in situations where the aim is emancipation. Bawden (1995) has developed the proposition from his consideration of learning and development theory that persistent development will follow from critical reflection. Finally, there is evidence that others can contribute to individual's reflective capabilities through engaging with them in structured reflection processes. But introducing others into the reflective activity adds the dynamic of relationships. Having others involved, is a potential counter to Habermas' (1973) concern that self-reflection can be delusionary because of the possibility of an individual's mental constructions being biased. This will depend however on the authenticity of information being exchanged in the reflection. I engage with literature related to the requirement for authenticity in the next section.

Section 4.7 The requirement for authentic information in communication

In the previous sections of this chapter I developed the ideas:

* that learning can occur at higher levels;
that higher level learning is desirable as it enables needed shifts in governing values; and

* that such change is accessible through reflection in experiential learning, but the reflection needs to be critical for emancipation and thus persistence of learning outcomes.

In Chapter 2 I defined action learning and referred to it as a social means of providing for reflection. I reported on the recognition of the foundation of contemporary action learning in experiential learning (McGill and Beaty 1992; Anon 1995). I also reported on action learning’s focus on action outcomes (Revens 1982a; McGill and Beaty 1992; Anon 1995).

In this section I focus on the need for the exchange of authentic or valid information in an action learning group. In doing so I contextualise this concept in the field of agriculture and consider literature regarding the need for exchange of authentic information for successful communication.

The calls for agricultural approaches that enable change (of paradigm or higher level learning) are increasing. In Section 4.4 I drew on the writing of Stubbs et al (1997), Vanclay and Lawrence (1995), Fitzhardinge (1994), Lawrence et al (1992) and Russell and Ison (1991) to argue for the inclusion of social elements in the development of new approaches to the complex problems of rangelands. In an international context, Pretty and Chambers (1994) and Whyte (1991) refer to the need for a paradigm shift in agriculture generally and change processes in agricultural extension in particular. The
calls relating to Australian and international agriculture focus on engaging the farmers in the system in the identification of the problem issue, and in developing responses to it. The envisaged role of extension officers requires them to use their technical skills in combination with the application of adult learning principles. They are expected to facilitate interactions between all participants\(^{38}\) in the system (Campbell and Junor 1992) while contributing from their technical base. An example of the concept in practice is presented by Peuse and Mmbaga (1987) in their process for a problem-solving workshop with farm groups.

The change being called for is one of having groups of extension officers or researchers working together with farmers and others in the system. An impediment to this is the observation made by Horton (1991) and Scoones and Thompson (1993) that researchers tend to believe in the superiority of scientific over indigenous knowledge. This leads them to assume a position of power in the choice of relevant knowledge rather than distribute the position amongst individuals determined by the context of the situation. Grundy (1996) has recognised the influence of social power in determining learner direction in education settings. Martin (1995) reports on it for the Landcare movement, and Holt and Schoorl (1985) acknowledge its occurrence more broadly in the introduction of technology in agricultural settings.

Frisby et al (1997) and Martin and Woodhill (1995) discuss the effect of the power structures in a situation on who is enabled to participate in change. Chisholm (1990)

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\(^{38}\) For example Campbell and Junor (1992) mention farmers, extension officers, researchers, agribusiness, consultants, land users.
has discussed this for educational situations where she observed a lack of symmetricality (democracy of power sharing) even in well-intentioned action research projects. Frisby et al (1997 p24) recognise that collaboration in action researching does not of itself ‘equalise power’ and they support this with the words of a participant that demonstrate that at least initially in this case there was inequality - “I must admit that at times I did not understand what was being said or why things were being done in a certain way. You have all these degrees and you work at a university, so I assumed you knew what to do. However, when I did get the nerve up to disagree, people seemed to listen to me which gave me the confidence to speak out again.” Grundy (1996 p118) acknowledges a similar phenomenon when she observes that “‘Trust’ alone does not necessarily redistribute power”, implying that practice must follow if redistribution is to occur.

Habermas’ (1984) philosophical perspective on communication is a useful basis for responding to issues of power distribution in agriculture and elsewhere. His theory of communicative action suggests a requirement for valid information exchanges to enable understanding among participants. He maintains that there are three requirements for validity of utterances, that is, what is said. One is that the statement made is true. A second is that the speech act is right with respect to the existing normative context, that is, the norms by which participants interact. The third is that the manifest intention of the speaker is meant as expressed, that is, the speaker must make his/her intention clear. Argyris and Schon (1996) agree that successful interactions require the exchange of valid information. They refer in particular to the intention of the speaker, when citing the need for congruence between espoused theories and theories-in-use.
The arguments in this section suggest that where learning involves interaction between individuals, through action learning or reflection with others for example, the interactions require valid information for success. Orlikowski and Yates (1994) have identified 'genre repertoire' as a recurring pattern of type and contents of communications that is specific to community groups or organisations. They suggest that genre repertoire influences, and is influenced by, the communicative practices of those in a community or organisation. Thus if genre repertoire involves the use of expressions that mask authentic communication, learning will be less easily achieved.

Habermas (1984) and Argyris and Schon (1996) posit that the type and contents of communications needs to be authentic for meaningful change to occur. They also argue however, that in personally challenging or threatening situations, the very situations that appear to most need changing, patterns of communication (genre repertoire) occur that make change difficult because the communication lacks authenticity. It seems that patterns of communication that develop in groups, communities or organisations can inhibit or foster learning and change. Action learning to make explicit the role of individual's in improving their situation may be limited by an inhibiting genre repertoire.

The theory of autopoietic systems provides another insight into the importance of exchanges of valid information for higher level learning and change. Mingers (1995) suggests that the understanding that participants make of a communication is a component of the communication and he identifies the other components as information
(the contents) and utterance (what is said). His interpretation of the theory of autopoiesis has the level of understanding\textsuperscript{39} either maintaining the communication among participants or limiting it. This suggests communication itself acts to produce its own components, to make it on-going through having the communication understandable by others so that they can respond in a way that has meaning for the initiator. Mingers describes this as a communication acting as a recursive\textsuperscript{41} recreation of itself. I believe that valid information is foundational to beginning and maintaining a communication that delivers learning.

Argyris et al (1985) and Argyris and Schon (1996 p50) develop a similar perspective in their action science theory, arguing "... that theories-in-use tend to exert a contagion or mirroring effect ...". Their concept suggests that where co-researchers practise theories-in-use of exchanging valid information, it encourages others to do so as well. Doing so is modeling a desirable behaviour. They further suggest that the desirable behaviour of offering valid information often does not happen. They maintain that people in threatening situations (problematic situations for them) "... typically act in ways that inhibit the generation of valid information and create self-sealing patterns of escalating error" (Argyris et al 1985 p61). They draw attention to the fact that authentic communication is itself problematic in difficult or problematic situations.

\textsuperscript{39} An autopoietic system is self-producing i.e. it consists of processes of production that generate their own components (Mingers 1991).
\textsuperscript{40} The requirement for understanding means that what is said needs to be understandable or interpretable by those present.
\textsuperscript{41} The Macquarie Dictionary defines recursive as permitting or relating to an operation that may be repeated indefinitely.
The Dick and Dalmau (1991) model of an information chain (see Figure 4.3) illustrates how the mirroring of communication behaviour occurs as a flow of communication through the key components in exchanges. Its components provide an interpretation of how the understanding that participants make of a communication (through the outcomes for and the beliefs, feelings and intentions of the communicators) is a component of the communication itself. Furthermore it illustrates how understanding as a component of communication influences the self-producing or autopoietic nature of communication.

**Figure 4.3** The Information Chain (Dick and Dalmau 1991)

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-->outcomes -->beliefs --> feelings --> intentions--> actions
  actions
<--intentions <--feelings <-- beliefs <-- outcomes <--
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Dick and Dalmau (1991) believe that barriers to communication are common and must be overcome for exchanges of authentic information to occur. They refer to problems of communication associated with the implicit rules under which we may each operate. Dick and Dalmau (1992a) identify the “undiscussability” of some subjects as a barrier to successful communication. Their work in organisational and professional development has led them to observe that it is “undiscussable” to reveal gaps we observe in what others say they believe and what is observable in what they do.\(^{42}\)

\(^{42}\) It is the difference between espoused theory and theory—in-use.
Another observation is that we do not discuss our own assumptions about the motives of others and our feelings towards them.

Mingers (1991 p330) recognises this in the work of Maturana arguing that “Although often ignored in discussions of language and meaning, in real conversations our mood or “emotioning” is an ever-present background to our use of language ... [such that] what is said, may trigger in us changes of mood.” This can be construed as support for the communication chain presented by Dick and Dalmau (1991) and the “undiscussability” of some subjects in our communications as well as highlighting the significance of emotions in communication.

The impact of emotions on our thinking is developed further by Goleman (1996). He suggests the interplay of thoughts and feeling indicates as that the emotions matter for rationality and “In the dance of feelings and thought, the emotional faculty guides our moment-to-moment decisions, working hand-in-hand with the emotional mind enabling - or disabling - thought itself. Likewise the thinking brain plays an executive role in our emotions (p28).” Like Mingers (1991), Goleman supports the recognition of the impact of emotions in communication as suggested by Dick and Dalmau (1991). His material further explains why emotions contribute to the authenticity of communication.

Habermas (1973 p12) recognises communication difficulties. He suggests the basis of such difficulties is in a “theory of systematically distorted communication”. This is similar to Dick’s and Dalmau’s (1992a) observation about implicit rules leading to
undiscussability. Argyris et al (1985) and Argyris and Schon (1996) suggest that the foundation of ideal communication is what they term Model II values. These are valid information, free and informed choice, internal commitment to the choice and constant monitoring of its implementation. I believe that Model II behaviours provide a foundation for authentic information exchange in communication.

The authors referred to in this section recognise the importance to communication of authenticity in information exchanges. It is the exchange of information that provides the impetus for change as an outcome of a learning situation. For an autopoietic communication system, that is, one that is self-generating and where authenticity is a component, self-generation of the communication to achieve learning outcomes would seem to be unachievable if some or all of the items of the information chain are undiscussable.

The notion that initiated my project activities recognised the important role of information exchange in communication to generate learning at a higher level that manifests as behavioural change. The basis for this is also evident in the literature earlier in the chapter which recognises that higher level learning provides for change in governing values. The literature highlights the role of level of learning in the transformation of an individual’s perspectives, thereby broadening the opportunities for improvement in problematic situations. It is also apparent that change as an outcome of learning requires the exchange of authentic information. The authenticity required relates to cognitive content as well as normative beliefs, feelings and intentions.
Section 4.8 Summary

In Chapter 4 I drew on a range of literature to develop the following perspectives related to learning and experiential learning:

* knowing how to learn can provide self-directedness and the skill needed to enable change;
* there are at least three levels of learning and knowing how to learn at each level can be beneficial for initiating change in behaviour;
* experiential learning provides for learning at each level;
* higher level learning (learning level three) is desirable because it provides the context for relevant paradigmatic and methodological change and that is the learning I am considering when I refer to higher level learning;
* epistemic cognitive development influences learning outcomes in experiential learning and this suggests incorporation of experiential learning activities that promote cognitive development to an epistemology embracing relativism is relevant;
* criticality can be added to learning situations through attention to emancipatory learning;
* reflection is a particularly potent stage in learning;
* critical reflection enables learning through its attention to the role of the self in problematic situations;
* critical reflection can be traumatic and support, including modeling and dialogue about difficulty during the process, is beneficial;
* there is evidence that an individual’s epistemic position determines his or her ability to critically reflect, and engagement with others in structured reflection can experientially provide for epistemic development; and

* higher level learning is promoted by the exchange of valid information.

In Chapter 5 I begin with a summary of my learning outcomes relating to understanding experiential learning and its role in a critical learning system. I refer to Argument I presented in Chapter 1. From there I summarise the dialectical\(^3\) material from my field work that contributes to the argument that is the basis of the Chapter 5.

\(^3\) The conflicting material I have identified in my field work and relating to this issue.
"The greatest challenge to the development of knowledge is the comfort of dogmatism - the security provided by unquestioned confidence in a statement of truth, or in a method for achieving truth - or even the shadow dogmatism of utter skepticism (for to be utterly skeptical is to dogmatically affirm that nothing can be known)." (David Kolb, in 'Experiential Learning' 1984 p108)

"Education is the great engine of personal development" (Nelson Mandela, in 'Long Walk to Freedom' 1994 p194)

Chapter 5 Introducing the skills of experiential learning to pastoralist farmers

Section 5.1 Introduction

In this chapter I begin by briefly putting my perception of the usefulness of experiential learning skills into an agricultural context. I then summarise my learning outcomes relating to experiential learning and its role in a critical learning system. I present these as issues to be examined in relation to my field observations and the literature. Following that I present dialectical material from field observations relating to my learning outcomes that contributed to Argument I of my thesis. As a means of extending the dialectic, I integrate into the discussion my field observations and aspects of the literature that relate to Argument I.
The portion of this chapter dealing with my field observations is organised into categories dealing with:

* my initial concept of experiential learning and how it impacted on learning outcomes;
* my current understanding of the concept of experiential learning;
* how I would implement future experiential learning activities;
* linking experiential learning and action researching and the emergence of a modified version of an action researching system; and
* learning about relationships in group experiential learning situations.

Section 5.2 My context for experiential learning in pastoral agricultural extension

Vanclay and Lawrence (1995) write that agricultural extension services in Australia face altered operating circumstances in the 1990s. They suggest that this has come about through Australian governments’ fiscal restraint philosophies, leading to reduced commitment to funding for agriculture\(^{44}\). Fiscal restraint they posit, has produced a reduction in agricultural extension services at a time when trade and income crises are forcing rural structural adjustment.

In the previous chapter I suggested that experiential learning appears to offer a means of improving difficult situations (such as structural adjustments) interdependently (that is

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\(^{44}\) The same is recognised in overseas situations and especially so in agriculture in the developing world (Cornwell et al 1993).
with others) and on the initiative of the people in the situation once they recognise that they face a difficulty. The material in that chapter supports the notion I referred to in Chapter 1 wherein I posited that experiential learning could produce useful change in pastoralists' situations. I sought to assist them to develop experiential learning skill through their own experience, so that they could in the future, work interdependently on issues that they recognise as problematic. It was my intention to making change possible for pastoralists.

**Section 5.3 The issues examined in this chapter**

The issues I consider in this chapter relate to my introducing experiential learning to pastoralist farmers for their use in management. They are:

1. My initial interpretation of the concept of experiential learning.

2. The use of experiential learning by pastoralists in their situations where, even with my initially unsophisticated interpretation of experiential learning, pastoralists reported some higher level changes.

3. My interpretation of levels of learning and cognitive development and what that means for having higher level learning emerge for behavioural change.

4. My interpretation of the links between experiential learning, action learning and action researching. I developed my interpretation in this agricultural setting. It demonstrates my emerging interpretation that these are different names for the same phenomenon depending on the perspective.

5. Interpersonal relationships within our group throughout the project.
6. The idea that as a collaborative learning facilitator I should be open about my own learning and offer it as a model of experiential learning. The focus of my learning could be my experience of working with the group. This means going through the same learning processes as the pastoralists and making my learning processes explicit for critiquing by group members.

Consideration of these issues has led to my proposing an expansion to Bawden’s (1995) model of a critical learning system and this is presented in Section 5.6.

Section 5.4 My initial concept of experiential learning and its possible influence on pastoralists’ understanding of learning outcomes

A number of authors suggest that inquirers’ own frames of reference, underlying values and previous interests, set boundaries to inquiry (Webb 1996; Schon and Rein 1994; Mezirow 1991; Schon 1987; Argyris et al 1985; Schon 1983; Habermas 1973). These boundaries determine the perspectives the inquirers bring to bear. This suggests it is realistic to posit that in the present work, my presentation of the concept of experiential learning to the pastoralist farmers played a role in determining the boundaries to their learning.

Figure 5.1 diagrammatically represents the model of experiential learning I presented to the Westland group\(^{45}\) in cycle one of my action research and to the MTT\(^{46}\) in cycle two

\(^{45}\) Westland is the name of the farming property owning the school house in which the first group of pastoralists met with me. The group assumed the name.

\(^{46}\) Muttaburra is the name of the local district for the second group of pastoralists. They chose the name Muttaburra Think Tank (MTT) after concluding that thinking about issues was to be our focus.
Figure 5.2 illustrates the model presented to the pastoralist farmers of the MTT group in cycle 3 (Cat.#38). The presence of the words 'act' in Figure 5.1 and 'acting' in Figure 5.2 as well as the end result of 'A new/different role for each of us in marketing our wool' in Figure 5.1 shows that I had a conventional understanding of action as an outcome of experiential learning.

Figure 5.1 The diagram of the experiential learning model as presented to the pastoralists of Westland and MTT in action research cycles 1 and 2

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47 Numbers and letters bracketed in this way refer to recordings of my field observations. My records include butcher paper (newsprint) public records, my field notebooks and audio tapes. The number is the catalogued item number and W denotes it came from the Westland group. Without a W means it came from the MTT. Later I use (b[No.];p[No.]) to denote that the data is recorded in a particular field notebook on a certain page.
Figure 5.2 The diagram of the model of experiential learning I presented to pastoralists at MTT in cycle 3

Both of these models represent a version of Kolb’s (1984) experiential learning cycle modified by my understanding of it at the time. They also portray what I believed pastoralist farmers would find practical as a starting point for involvement with experiential learning. As well as being the diagrammatic form presented to pastoralist farmers, the models also formed the basis for the verbal material presented when I invited the pastoralists to participate (Cat.#2G; Cat.#3G).
My perception that action was the outcome of experiential learning contrasts with Kolb’s (1984) contention that experiential learning is best conceived as the process and not its outcome in the conventional sense of action. Senge (1990) supports this view when he develops the idea of links between the personal mastery of creative tension and continuously learning from experience as a process.

In further placing the accent on experiential learning as a process Kolb (1984) studiously steers away from outcomes as a product in the development of his theoretical model. He even submits that when particular outcomes are sought they may lead to learning becoming non-learning.

Mezirow (1991) also provides a definition of learning from one’s experiences as a process and not as a conventionally conceived outcome. In his case a learning outcome is guiding future action, but he defines outcome as including “.... making a decision, making an association, revising a point of view, reframing or solving a problem.” (Mezirow 1991 p12). In doing so he too registers the value of learning as a process.

So while experiential learning is grounded in the pragmatism of knowledge creation as a precursor to adoptive action (Bawden pers comm) my notion was one of offering the development of skills in the process as the central focus of the invitation. It is on the basis of that notion that incongruency exists between my espoused position and that which could be inferred from my action. An interpretation from my reflection it that I believed I conveyed our reason for gathering around experiential learning as its use as a
process but this was not the message I initially conveyed to pastoralists. Three sources of field observations support this interpretation.

The first source of support is the invitation to involvement by pastoralist farmers at Westland and later the MTT that included a diagram of ‘finding out’ and ‘taking action’ (Bawden 1990) (Cat.#56). At the time I was seeking to provide the pastoralist farmers with information about plans for the group so that they could make a free and informed choice about involvement. Reflection suggests that my emphasis in inviting participation may have been on concrete action as a major outcome of learning in my effort to gain pastoralists’ interest and involvement. Thus my emphasis on concrete action was my theory-in-use whereas my espoused theory48 (Argyris et al 1985) was of engaging their interest in experiential learning as a process leading to action.

The divergence is apparent from field notes of content and records that highlight my action theories. The first recording is a note about what I said to pastoralists when inviting them to be involved that depicts an accent on process. “[I] Talked [with pastoralist farmers] of getting a new/different perspective on the answer to the problem, but also getting a new perspective on what the problem itself is, from using the process” (b4p7). This represents my espoused theory supporting process as the aim of experiential learning. Eight pages later (b4p15) I refer to a point raised by one pastoralist during the invitation stage. The point she raised was that a useful result would be if people ended up with a new perspective on what the issue is for them, even if a result was not forthcoming to resolve the wool issue. My field notes record that I

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48 Espoused theory here is what I claimed I was meaning at the time.
later added, "I believe that is true, but wonder if we would need to have some more concrete outcomes to ensure satisfaction --> alternatively we could use that as a starting point for the next cycle." The reference is to a concrete outcome or a product and seems to represent my theory-in-use as different to my espoused theory. This was certainly not my intention at the time. These data indicate that my theories-in-use were ones of seeking a product, rather than my espoused theory of the development of process skills as recorded eight pages earlier.

The diagrams (Figures 5.1 and 5.2) provide the second piece of data suggesting that the concept of experiential learning as presented, did not focus on process. The figures contain the words “decide” or “deciding” and “act” or “acting” (Cat.#73W; Cat.#38). These are not the words used by Kolb (1984) in his presentation of the model and from which my interpretation came⁴⁹. ‘Decide’ and ‘act’ convey the ideas of reaching a conclusion (in this case on what to do) and then performing (an activity in this case) to produce a product. Kolb (1984) presents performance not as learning, but as being “... limited to short-term adaptation to immediate circumstance, ...”. The use of the words decide, deciding, act and acting could thus present experiential learning as a concept in which the product is the main or only outcome.

The third source is observations made by pastoralist farmers of the Westland group. A concluding event in our formal time together was my visit to each pastoralist⁵⁰ when in a semi-structured format we talked about our time together. The eight pastoralists

⁴⁹ Kolb (1984) uses the term ‘accommodate’ where I have used ‘act’ and ‘acting’. He is referring to cognitively accommodating the concepts the experiential learner develops to experience in the world.
⁵⁰ Where they chose to include other members of their management team in the interview all participated in the discussion. In only two cases were others not present.
expressed disappointment during these interviews that the group did not take collective action on the wool issue (Cat. # b5 and b6). The implication was that they were expecting the group to produce a product in the form of some collective concrete action.

I used the same language and diagrammatic representation of the experiential learning model (Fig 5.1) in the invitation and introduction to the pastoralist farmers of the MTT that I used at Westland. In that way a focus on a product is again evident in presentation to pastoralist farmers in the second action research cycle.

A change occurred following a shift in power roles between the Westland pastoralists and myself at the end of cycle one, and that led to my emerging understanding of experiential learning as a process. I will refer to this power shift again in Chapter 7 as it represents a significant turning point in relation to a number of issues in this work.

The ‘power shift’ arose as we were nearing the end of cycle one and group one was about to disband. The incident leading to my changed position began in a session that created ‘surprise’ for me insofar as the Westland pastoralists didn’t stay focussed on a central issue that I had proposed. In my perception their loss of focus occurred as we sought to develop their interpretation of material they had brought together in a mind mapping exercise. The pastoralists actually referred to it as being difficult to extend the map outwards (b5p81). Following that session I reflected, revisited literature and planned the changes I would make to our process. It was my intention to have the pastoralists move in what to me appeared to be a desirable direction (b5p106). As a part of my process development I prepared my process plans for discussion with an academic supervisor. I noted the discussion points I intended to raise with him.
(b5p108) and on reflection I realise that they only relate to modifications to, or
questions about, techniques. It is also true that in this situation my reflections related
largely to process techniques, as did my attention to the literature. The focus of my
attention was firmly on using techniques to derive desired outcomes - a problem
identified by Schon (1983) as characteristic of unreflective practitioners.

In our discussion, my supervisor drew my attention to aspects of my process that were
providing direction to pastoralists about suitable outcomes. He suggested this could be
limiting them in their interpretations (b5p110). It seems to match Chisholm’s (1990)
concept of a lack of symmetricality or democratic power sharing amongst participants
in action research. My ‘directing’ was not an issue that I had surfaced in my
reflections. Subsequent to this I reflected more critically on my use of process, my
beliefs about participation, and the implication of these for both the Westland and MTT
pastoralist groups.

I was reflecting on my theories-in-use in relation to my espoused theory (Argyris et al
1985; Argyris and Schon 1996). My espoused theory was one of myself and the
pastoralists collaborating to improve the wool issue that was the focus of our attention.
It was one where I provided the pastoralists with experiential learning skills that they
used to consider the issue and identify an outcome for themselves. Figure 5.1\textsuperscript{51} shows
the model I was using. However, my theories-in-use were of setting the boundaries of

\textsuperscript{51} Fig 5.1 is the diagram of the experiential learning model as it was presented to the pastoralists of Westland and
MTT in action research cycles 1 and 2.
what the pastoralists could consider as they identified outcomes for their own use. The boundaries were ones that met my standard of what was a suitable outcome.

In my reflection I recognised that my idea was not the ‘best’ and that each grazier’s interpretation, when well reflected upon, was appropriate for their circumstance. I also recognised that as a group we could develop our inquiry to produce prudent decisions about the problematic issue for each of us (b6p1-23). For me that issue was having pastoralists acquire and use the skills of experiential learning.

At the same time I sought material about creating process transparency. I also revisited and reflected on taped material from the session in question with the Westland group. I reflected on my and the pastoralists’ involvement in decision-making in our groups and I considered the outcomes for each group from this series of events (b6p1-23)

The specific outcome for the Westland group in cycle one was that I took my dilemma about outcomes to them for discussion and in doing so I withdrew my directive activities. This led to useful discussion about our activities and to the pastoralists developing their own responses to the wool issue we were examining. Furthermore, I understood why I was comfortable with their chosen responses (b6p34/47/59/63) given my recognition that they were the most appropriate people to decide on their learning outcomes for future action. This was double loop learning for me and represented a shift in my epistemic cognitive position. An outcome at the MTT where cycle 2 of my action research had begun before I realised my directiveness or lack of symmetricality (Chisholm 1990) was increased input by pastoralists into what we subsequently did.
The increased input began in the next session at the MTT and marked the start of cycle three (see Table 3.1, Chapter 3). The change of my epistemological position was grounded in the matching of my theories-in-use with my espoused theories, leading ultimately to the shift of direction of our activities in cycle three. Our direction moved to one of a focus on current local issues (CLIs) because of their relevance to pastoralists, rather than the wool issue that I had originally proposed. The CLIs subsequently became our focus in developing skills in experiential learning while improving problematic situations.

At Westland at the conclusion of our time together, we had a group session to reflect on what had taken place. Group members reported using the learning cycle as a process to examine difficult situations. This appears to show their focus shift to experiential learning as a process (Cat.#44W) following my lessening of directiveness as a facilitator. At MTT a similar apparent shift to a process understanding of experiential learning occurred in the last session of cycle two and the first session of cycle three. This interpretation is supported by pastoralists’ suggestions of changing our focus from wool to one of using the process to ‘think about’ (they had decided they were a think tank) current local issues (CLIs). Like the changes at Westland, the two MTT sessions in which these observations took place occurred after the lessening of my directiveness as a facilitator.
Section 5.4.1 Considering my initial and later interpretation of experiential learning in relation to learning outcomes for pastoralists

The interpretation of field observations above suggests that my interpretation of the need for action prejudiced the pastoralist farmers towards expecting a product of action from the use of experiential learning (for example Westland pastoralists expected collective action). It therefore also seems possible that such an expectation in some way limited pastoralists in learning about their problematic situation. Changes were reported. At Westland for example where our focus was the problematic situation of determining “The [improved] role that I as a Longreach woolgrower can play in preparing and selling my wool”(Cat.#28W) pastoralists reported changes that could be interpreted as fitting Watzlawick et al’s (1974) first and second order change categories or Argyris et al’s (1985) single and double loop learning and Mezirow’s (1991) change within and among meaning schemes.

An example of first order change (within existing meaning scheme) in the Westland group is that of one pastoralist who sketched graphically and described his future as selling his wool in traditional ways (Cat.#19). In the final discussion of the Westland group he suggested that in relation to wool his major learning outcome was “More knowledge about the wool marketing [marketing] chain” (b7p26). He had learnt more about wool being prepared and sold in traditional ways and this was within his previously held meaning scheme (sketched) of how wool could be grown, processed and sold. As well, it was within that meaning scheme that he still saw his potential for improvement to the role that he could play in preparing and selling his own wool.
An example of higher level learning from the same group was the pastoralist who in an early session sketched himself on his property conducting a woolgrowing operation (Cat.#19). In the final discussion of our group he described how he had sold his property. He did so to move to a closer settled area as a cattle farmer (he said he had been trying to like sheep for nine years) and thus enable he and his spouse to do some of the other things they wished to do. He said that the decision may have had some base in the group activity (b7p19). This outcome represents a significant change in his representation of his original meaning scheme of continuing to grow wool as shown in his sketch. He subsequently changed to determining his ‘improved’ role in preparing and selling his wool by deciding that the wool industry was not one in which he wished to continue.

Learning outcomes at the MTT group were reported for both CLIs and the wool issue. As a group participants had earlier decided to return to the wool issue after first focussing on CLIs. The activity undertaken with wool to which all MTT pastoralist farmers contributed, was one of collecting information about wool marketing options and publishing them in a leaflet (Cat.#76). This constitutes first level learning or change (Mezirow 1991; Watzlawick et al 1974) because of its “within perspective” accumulation of information as learning (Kolb 1984). Instances of individuals learning at a higher level were also evident within that first level learning activity. One pastoralist said at the start of a session, for example that he thought that the auction system was a poor means for getting true value for his wool. He said quite emphatically that he would never sell through the auction system again (b8p83). We were focussed on action learning about selling options for wool at the time. At the
close of the session the grazier concluded “I will rephrase my expression that I won’t sell through [the] auction as I want to have it as an option each year. I see it as a selling option I don’t want to exclude.”

Instances of first and higher level learning respectively can be cited for the MTT when dealing with CLIs. An example of first level learning occurred when one grazier raised the issue of his sheep breeding practices, only to say at the finish that the ideas reached using the action learning process were ones that he had already planned. The difference now, he said, was his determination to act (b7p55) and this appears to be a within perspective transformation that is first level learning. An example of higher level learning occurred when another grazier, on a different occasion, began examining within the context of the future of the wool industry, the issue of whether or not he should buy an aeroplane. After applying the process of action learning in our group setting, he concluded that he needed to raise with his parents the issue of succession of property ownership (b7p85). It was a subject they had never ever discussed and his shift in understanding from the general aspect of ‘industry viability’ to the previously unthought of one (by him) relating to his own position in the family structure represents higher level or at least different domain learning.

These assessments of learning all occurred after the power shift described earlier in this chapter. The fact that there was no group action, was however, a disappointment felt by the pastoralists at Westland and was referred to by them at the conclusion of our activities. Because they referred to the disappointment, but also expressed their satisfaction about their individual learning outcomes, it is possible that the latter may
have arisen from their changed understanding to learning as a process. My change to
less directive facilitation was a possible trigger for this.

My assumption that graziers would want action related to changing their present
situations appears to have affected the nature of the initial experiential process with
both the Westland and MTT groups. This situation changed following the realisation
that it should be the graziers themselves who determine the interpretation and
application of generated knowledge. It changed also as I realised that the central issue
for me was participation leading to mastery of the experiential learning process by
pastoralists.

It was only in the reflection associated with thesis writing that the change was
perceived as:

1. explicitly related to my confronting the fact that I was directing what was
   happening in our sessions, but
2. implicitly related to my understanding that experiential learning was process
   and not outcome focused.

In the next section I describe my current understanding of the concept of experiential
learning.
Section 5.5 My current understanding of the concept of experiential learning

It appears that my presentation to pastoralist farmers of experiential learning as outcome directed arose from my concept of experiential learning. This may be because I was operating in a dualistic epistemic cognitive position (Perry 1970; Kitchener 1983). In doing so I viewed the model of experiential learning presented by Kolb (1984) as a series of steps that would deliver the required outcome for the pastoralist farmers. I did not, as I now recognise, initially conceive of the model as a framework for understanding learning from experience, but rather I sought to apply it as a method. In a similar way McTaggart (1996) refers to the action research spiral\(^{52}\) becoming a procedure and the need to confront that problem. I believe I initially failed to consider the experiential learning model a construct designed to promote understanding of how learning can occur. The model is a representation of reality. It is not ‘observable’ in reality (Watzlawick et al 1974) and as such is not suitable as a method. McTaggart (1996 p248) writes “Action research is not a ‘method’ or a ‘procedure’ for research but a series of commitments to observe and problematise through practice a series of principles for conducting social inquiry ...”

Action research as an inquiry methodology allows for a methodological starting point that is a less sophisticated understanding of the “current situation”. In my case I had a less sophisticated interpretation of experiential learning. A similar interpretation can be

\(^{52}\) I have referred in Chapter 2 to action research being connected cycles of experiential learning - the spiral in McTaggart’s (1996) terms.
drawn from the work of Weiskopf and Laske (1996) where they began fieldwork in action research by viewing consensus as emancipatory. Their emergent outcome was recognition of a ‘cooperative pact’ as more relevant to emancipatory action research. Dick (1995) accommodates this lack of sophistication by having a ‘fuzzy question’ as a starting point. This consistent with Altrichter et al’s (1990) definition of action research as “learning progressively (and publicly) by doing and by making mistakes in a “self-reflective spiral” of planning, acting, observing, reflecting, replanning, etc.”

It is this unintended ‘mistake making’, such as my beginning with a less sophisticated understanding of the concept of experiential learning, that led to the learning outcomes about the methodology and my practice. The learning outcomes emerged for me, as they did for Weiskopf and Laske (1996), through reflection. Writers about action research maintain emergent learning outcomes are fundamental to action research as a methodology. Greenwood et al (1993 p175) suggest that participatory action research is “always an emergent process”. Others supporting the concept include Frisby et al (1997), Grundy (1992), Bawden (1990), Altrichter et al (1990), Oja and Smulyan (1989), Grundy and Kemmis (1988), and Carr and Kemmis (1986).

The way in which my understanding of experiential learning has increased in sophistication is thus fundamental. My understanding recognises that experiential learning is a conceptual model related to learning from experience. For that reason it

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53 Weiskopf and Laske (1996) found their difficulties with consensus in an organisational setting. Similar concerns about consensus in relation to power and knowledge have been highlighted in an agricultural setting by Pottier and Orone (1995).
requires attention to my understanding of the development of knowledge using this process.

My expanded understanding of experiential learning includes recognition of the sources of knowledge provided by the dialectics generated in Kolb's (1984) model. "Learning requires abilities that are polar opposites [dialectics], and the learner, as a result, must continually choose which set of learning abilities he or she will bring to bear in any specific learning situation" (Kolb 1984 p30). Meeting the requirement to use abilities that are polar opposites means the sources of knowledge are my engagement in new experiences about experiential learning and my use of many perspectives to reflectively observe my experiences. Another source is my creation of concepts from my observations to provide theories for future use and another source is my use of these theories to make decisions and solve problems. These four sources of knowledge derive from new experience and its polar opposite of the conceptualisations I develop about the experience, together with my reflective observations of the experience and its polar opposite of accommodating these into my experience in the world. They provide the material for the dialectical interplay in experiential learning.

I now appreciate a combination of the models of Bawden (1990) and Kolb (1984) as providing an overall understanding of experiential learning. Bawden (1990) uses

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54 Using dialectics is presented in the Macquarie Dictionary as "proceeding by or as if by debate between conflicting points of view and as a process of change that results from an interplay between opposite tendencies". By implication the change emerges from the interplay between the opposites. Kolb (1984) refers to dialectic in a similar way when he describes, for example, the relationship between apprehension and comprehension as dialectical in his model of experiential learning. He says the relationship is dialectical because "although the results of either process cannot be entirely explained in terms of the other, these opposite processes merge towards a higher truth that encompasses and transcends them." (P107). Webb (1996) refers to the same aspect of a higher outcome and says that a dialectic process involves taking what is right from each side of a discussion to form a new position containing the 'truth' of both.
double headed arrows to illustrate the inherent dialectical nature of his model. The model in Fig. 5.3 depicts this combination for me as it highlights the role of knowledge sources in the conceptual framework of the model.

Figure 5.3 A model of my developed understanding of the concept of experiential learning (After Kolb 1984 and Bawden 1990)

At the same time as my more sophisticated understanding of experiential learning has emerged I have developed a concomitant approach to presenting the process. I now
wish to be seen as "doing as I say I want to do" when presenting the process\textsuperscript{55} to others. This matching of action theories of facilitation is supported by Argyris et al (1985) and Argyris and Schon (1996). The work of Dick and Dalmau (1992) in the field of professional development using Argyris et al's (1985) Model I and Model II governing values\textsuperscript{56} is a reflective activity that enables the examination of action theories for congruency. In Chapter 7 I use their process as a basis for reflecting on my action theories of facilitation.

Checking the match between my intentions (espoused theories) and what can be inferred from my deeds (theories-in-use) in interactions with pastoralist farmers is consistent with the principle of using reflection to improve my practice. The need for such assessment is suggested by the work of a range of authors including Burrows (1997), Argyris and Schon (1996), Dick (1995), Altrichter et al (1990), Bawden (1990), Oja and Smulyan (1989), and Grundy and Kemmis (1988), Carr and Kemmis (1986) and Schon (1983). The foundation of this approach is the idea of meta-learning presented by Kitchener (1983). It is also consistent with the learning II of Bateson (1972). I am learning, through reflection, about how I am learning about my use of experiential learning.

My understanding of experiential learning currently is that it is a conceptual model of how learning can take place through knowledge generation in dialectical processes. I

\textsuperscript{55} The process of experiential learning involves the skills of embracing new experiences, reflecting on them, making sense of them by developing concepts about the meaning of the experiences and then incorporating or accommodating them into experience in the world.

\textsuperscript{56} Argyris et al (1985) say that in action science they are concerned with the effective functioning of interventionists (such as I was being in bringing experiential learning to pastoralists) in behavioral systems. They refer to governing variables and say that they are values that the people in the behavioral system seek to satisfy. From this they have developed two models and described the governing variables that they suggest go with them.
now seek to match my espoused theories with theories-in-use in facilitating experiential learning. In the next section I present my current beliefs on facilitation of experiential learning and how I arrived at them.

**Section 5.5.1 Implementing future experiential learning activities - my active experimentation**

In this section I present reflections on the sequence of experiences leading to the approach that I would now use as a facilitator introducing experiential learning. The approach is one modified from the so-called Hawkesbury process (Macadam 1995).
<table>
<thead>
<tr>
<th>EXPERIENCE</th>
<th>UNDERSTANDING</th>
<th>CONCLUSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having an initial project aim of pastoralists developing and using the skills of experiential learning.</td>
<td>That this is a legitimate aim for an extension officer.</td>
<td>To continue to promote the development the skills of experiential learning as one way of improving problematic situations.</td>
</tr>
<tr>
<td>Westland pastoralists said my process of introducing experiential learning to them was ‘boring’.</td>
<td>My initial reflection led to my reaction of believing I needed to change the process. I did not inquire what ‘boring’ meant.</td>
<td>My initial response to ‘perceived challenges’ to my process ideas should be founded on inquiry.</td>
</tr>
<tr>
<td>The subsequent search of the literature to interpret action learning as a ‘simpler’ model of experiential learning to introduce to others.</td>
<td>At the time this interpretation was useful to the progress of the project.</td>
<td>Action learning is interpretable as a form of experiential learning.</td>
</tr>
<tr>
<td>Cycle 1 of my action research was completed after cycles 2 and 3 began.</td>
<td>This meant that I took action (in cycles 2 and 3) on reflections made during cycle 1 but before the final reflections of cycle 1.</td>
<td>As a practice of action research this is questionable but a change may be difficult as cycles are not always discrete.</td>
</tr>
</tbody>
</table>
EXPERIENCE

Group reflections to conclude cycle 1 showed ‘boring’ as meaning ‘confusion’ created by my facilitation. Westland pastoralists added that my initial introduction of the experiential learning process [to which ‘boring’ referred] was “essential to their understanding” of how to experientially learn. They also said they would use the process to deal with CLIs. Some reported their use of it already in management decision-making.

I reflected on the feedback that ‘boring’ meant ‘confusion’ to learn only about my need to inquire. I did not conclude in my reflections that my original process introducing experiential learning could still be appropriate.

In reflecting while writing this thesis I confronted the fact that at MTT sessions (i) two pastoralists brought non-authentic problematic situations to our action learning sessions, and (ii) all MTT pastoralists said that they did not see our questioning process of action learning as one they would initiate and use with other pastoralist farmers.

UNDERSTANDING

This experience supports inquiry as a response. My reflective inquiry led in part, to the emergence of a focus on CLIs in cycle 3 with the MTT group.

As a consequence of that single learning outcome I made no change to my intention to use the action learning process instead of my original Hawkesbury approach in cycle 3.

CONCLUSION

My facilitation of experiential learning requires reflection to elucidate how my facilitation influences what occurs for participants.

My personal unconscious framing of the reflection process may have limited the learning outcome to this one feature.

(i) Our relationships in the MTT did not allow all members to bring issues important to them.
(ii) Action learning is not a process pastoralists believe they can initiate with other pastoralists. This contrasts with the Westland group who said they would use the so-called Hawkesbury model with others.

(i) Group relationships require attention as a part of facilitation.
(ii) Kolbian experiential learning provides a foundation for introducing learning skills to pastoralists.
EXPERIENCE

Returning to the literature after the above experience resulted in my changed appreciation of action learning in a questioning format as a means of experientially learning.

UNDERSTANDING

My interpretation of the experiential nature of the action learning process is that it may lack the sophistication of the experiential learning process developed at Hawkesbury and used by me in cycle 1.

CONCLUSION

The Hawkesbury interpretation of experiential learning is suitable for use by me with pastoralists in my role as an extension officer.
My approach to my work with the Westland pastoralists in cycle 1 was based on my initial appreciation of the experiential learning process developed by practitioners from UWS Hawkesbury and recorded by Macadam (1995). My understanding of the process was that it requires a facilitator to take participants through a series of phases using techniques to enhance knowledge acquisition in each quadrant of Kolb’s (1984) cycle. In response to suggestions that the process at Westland was ‘boring’ and in need of ‘practical’ discussion time, I used a truncated and abbreviated version in cycle 2 with the MTT farmers. My engagement with the literature to seek simplicity of process for future use by pastoralist farmers led to subsequent changes in the process in cycle 3 where it was guided by the Revans inspired model of action learning as presented by McGill and Beaty (1992). Thus with Westland pastoralists I used the Hawkesbury process (Macadam 1995) as the basis of reflections about process while at MTT it was the questioning action learning model of Revans.

In cycle three with our MTT we used action learning to seek improvement in the problematic situations (CLIs) that the pastoralists presented at each session. The action learning process we used was one of the questioning of set members by set members - it was Revans’ (1982a) concept of ‘debate’ - in relation to the CLI raised. The process involved action learning about the CLI at a session and the pastoralist making a plan for action. In the following session that pastoralist reported on the action. Fig 5.7 is the model to which we referred when using action learning at our MTT sessions.
Figure 5.4 The model of action learning used in cycle 3 with the MTT pastoralists

Also in cycle 3 I used a series of shorter action research cycles to adapt our action learning process to the pastoralists' requirements. The foci of these shorter cycles were for us to:

1. Develop guidelines for presenting the issues in our action learning sessions.
2. Establish techniques to enable pastoralists' to identify a problem situation to bring to our sessions.
3. Identify a series of questions to use in our action learning process.
4. Design a format for reporting back to the group at a later session.
5. Discuss and try ways of assessing our process.
6. Develop agreement on purposes for and evaluations of our session activities.

Records of these cycles are in my field notebooks, on public butcher paper (newsprint) and audio taped records, and in records of group reflection sessions (b7p45/6483/97/101; b8p35/81; Cat.#46/16/17/54). Our activities as reported in these
records demonstrate a commitment to using the action learning process well and to action researching its application.

There were two major reasons for my shift from the ‘Hawkesbury’ process to one of the ‘action learning’. The first was the need to respond to the Westland pastoralists suggesting that my process had at times become ‘boring’ (b5p21). The second was my notion of developing an experiential learning process model with pastoralists that they would initiate and use without involving a facilitator. The ‘Hawkesbury model’ as I understand it required the input of a facilitator. I saw the questioning model of action learning as a starting point for the emergence of a “user-friendly” model.

In deciding to use the action learning model I did not seek to inquire in depth about ‘boring’ when it arose because it merged in my mind, with the pastoralists’ concurrent suggestion that we needed time for ‘practical’ discussion. I took the comments to mean that I needed to reduce the complexity of the process. Only in the latter part of cycle 1 with the Westland pastoralists (while cycle 3 with MTT was also in progress) did I seek disconfirming evidence relating to the meaning of ‘boring’. I did this because I recognised the poor development of my initial interpretation. This led to an understanding that ‘boring’ meant my creating ‘confusion’ in the minds of pastoralists about what experiential learning and my practice with it meant. The Westland pastoralists also said however that the process used as they developed their understanding and use of the experiential learning model (that is the ‘Hawkesbury’ model) was essential to what followed (b5p84). At the time, that is the later stage of cycle 1, my insights were:
* that I had made assumptions without seeking disconfirming evidence, and
* that I needed to be transparent about the process I was using.

I did not subsequently seek to change the action learning process in use at MTT in cycle 3, but I did seek to increase the level of transparency about my process.

My reflective observation activities while writing this thesis again focused my attention on the experiences recounted in this section and my interpretation of them. I noted the understanding of ‘boring’ as ‘confusion’ and my insight about the lack of transparency of my process. Other experiences on which I reflected while writing occurred during our action learning in cycle 3 at MTT, and during my reflection on action learning following my project activity and contact with the literature on learning.

The first experience was that of two pastoralists bringing to a session issues that they said were problematic (b8p38) and their preparing action plans related to them at the session. When reporting back at the next session however they said that they had not acted on their plans. Questioning, in the spirit of the action learning process, revealed that the resolution of one issue had taken place before it was even raised in the previous session and the other was not an actual problematic situation. As a function of action learning we inquired about their reasons for raising the issues. The questioning process elicited the response from first one and then the other that they did have actual problematic issues but they did not feel they could raise them in the group. An enquirer asked what conditions would need to prevail for them to raise such issues. Instead of responding directly they made the statement that they thought our group was for
working on the wool mission rather than CLIs. They also said they did not feel the
group could help them with their actual problematic situations (b8p51).

A possible interpretation is that group interpersonal relationships were insufficiently
sound to enable the two members to raise their problematic situations. Hastie (1997)
made a similar interpretation in an educational situation when seeking change through
action research. In that situation ‘the emotional climate of the class’ was one of the
critical factors influencing change.

A second experience with the MTT came in a final discussion with individual
pastoralists and their management teams (Cat.#MTT 01-07). At that time pastoralists
reported that they would not initiate the use of our questioning process of action
learning with other pastoralists. It appeared they were unlikely to initiate questioning
of other pastoralists or respond to questioning of themselves by others. An explanation
given by one grazier was that he felt it was resented when he began asking questions.
Another reported that he and his family management team used the MTT action
learning process, but that he wouldn’t initiate it with others.

The response of the MTT pastoralists to action learning contrasts with comments made
by Westland pastoralists about the process we used at their sessions. All but one
Westland pastoralist said that the process of experiential learning they used there - that
of a facilitator leading techniques to elicit knowledge matched to the learning cycle
quadrants, that is, the ‘Hawkesbury’ model, was one that they felt would be of interest
to other pastoralists. This was apparent in final interviews with individuals and
management teams of the Westland group (b7 and b8). They added that a shift in focus to current local issues (the focus that emerged at the MTT in cycle 2 before the end of cycle 1) would make their involvement in future group situations personally attractive. Another experience was that of my future experiential learning activities. This arose for me as I returned to the literature to reflect on the sequence of events presented at the start of this section to document my future plans for using experiential learning.

From the three experiences reported here my reflection has led to my current interpretation that action learning applied as the usually referred to social questioning process is a less sophisticated form of experiential learning.

Action learning is a way of learning from the experience we encounter and this is evident from Revans’ (1991) belief "... that we must return to the most precious asset we have, which is the people who are actually doing the work ...” He maintains it is they who will provide the answers to the difficulties that arise. He refers to using their ‘here and now experience’. Action learning’s role in deriving practical learning from experience is also evident from the contributors to ‘Action Learning in Practice’ (Pedler 1991) and the writing of McGill and Beaty (1992).

Mumford (1994), McGill and Beaty (1992), Revans (1991), Garratt (1991) and Pedler (1991) all emphasise asking of question as the focus of activity in action learning. These questions, if raised by the people actually doing the work in the problematic situation leads to significant analysis of the situation by them. In this way action learning is directed to reflective learning. It is learning that takes place internally for
the learner about an issue of concern. It clarifies meaning for the person in the situation (Brookfield 1987, Boud et al 1985, Boud and Walker 1990). It is reflective observation prompted by questions from others (Revans 1991; McGill and Beaty 1992; Mumford 1994 and Pedler 1991).

It appears however, that in contrast to Kolb’s (1984) more formal, theoretical perspective on experiential learning, the action learning model does not explicitly or exhaustively embrace:

* comprehension to generate abstract conceptualisations;
* extension to promote broadbased active experimentation; or
* apprehension to engage fully with concrete experiences.

Mumford (1994) alludes to this issue while noting the lack of significant references to how people actually learn in action learning situations. Passfield’s (1996) observation that action learning facilitators pay more attention to its form than its substance may also be attributable to this relative lack of theoretical grounding.

My reflections on my experience with experiential learning and action learning has resulted in a modified version of the workshop process (Macadam 1995) with which cycle 1 started. The modified process still requires a facilitator to lead participants through a series of techniques to enhance the development of knowledge relevant to each quadrant of the experiential learning cycle. The modifications involve:

1. Initial dialogue with potential participants to generate shared understandings of what is to happen in group activities.
2. Well developed and explicit interpersonal relationship building as a group activity (Rogers 1983; Dick 1987), beginning immediately and continuing throughout the life of the group.

3. Periods of dialogue that allow for the development of shared understanding of what the group is doing, who is doing it, and why.

4. Attention to making all process transparent.

5. Time spent in explicit attention to aspects of personal development (McGill and Beaty 1992) and emancipatory learning.

In this sub-section I presented reflections that will guide my future facilitation of experiential learning with pastoralists. In the next section I refer to the link between experiential learning and action research as I outline the modifications to my future practical application of experiential learning as an action researching system.

Section 5.6 The link between experiential learning and action researching, and the emergence of a modified version of an action researching system

In this section I consider the concept that in action researching my role as an extension officer facilitating the introduction of experiential learning to pastoralists I was experientially learning. To this extent, action researching can be seen as experiential learning. Both structurally, and in their role of providing tools for change, action research and experiential learning are similar. While recognising the similarity Bawden (pers comm) suggests that action research is empirical and experiential learning is rational. This is consistent with Lewin’s presentation of a model of learning from
experience and his spiralling of these cycles to present a model of action research (Lewin 1952).

A three-part issue arising in the application of action researching as experiential learning concerns presenting an action research process to pastoralist farmers so that

* it is transparent to them as experiential learning, that is, as a process that ‘skills’ them to act to improve any situation of their choice;

* the competence of the facilitator to enable action research as experiential learning is improved; and

* transparency and improved competence provides for critical learning.

As an initial response to this issue I return to the concept of levels of learning. The work of Argyris and Schon (1996), Bawden (1995), Mezirow (1991), Salner (1986), Kitchener (1983), Habermas (1973) and Bateson (1972) referred to in Chapter 4 led to attention to three levels of learning denoted by the terms learning, meta-learning and epistemic-learning.

Figure 5.5 utilises the concept of three levels of learning to present my response to the three-part issue related to introducing action researching to pastoralists. It emerged from consideration of a number of sources:

* the model of Bawden (1995) for critical learning systems,

* my reflective observations earlier in this chapter on experience, and

* my reflective observations on the literature of:

  ⇒ Dick (1987) on group functioning;
Murphy (1992) and Myers (1980) on personality type;

Dick and Dalmau (1992; 1991), and Dalmau and Dick (1992) on professional development, and creating effective learning environments;


Macadam (1995), and Kolb (1984) on experiential learning;


Zuber-Skerritt (1996; 1990), Dick (1995), Perry and Zuber-Skerritt (1992), Kemmis and McTaggart (1988b), Carr and Kemmis (1986), and Lewin (1952) on action research; and

Figure 5.5 A model of a critical approach to action researching/experiential learning with pastoralists

Double-headed arrows in Figure 5.5 denote that finding-out impacts on the situation while at the same time providing 'information' to the person finding-out. In a similar way, taking action affects both the person and the situation.
Section 5.6.1 Providing an explanation of the model

To suggest that this model is a simplistic representation of a complex mix of situations is recognising it for what it is. A further dimension to this complexity is evident in the writing of Watzlawick et al (1974) and Argyris et al (1985) who point out that change at one level creates tension at the other two.

The model provides a context in which I, as an agricultural extension officer, can model experiential learning and thus provide a focus for dialogue about the learning process with collaborators in the learning situation. It also presents itself as a framework to attend to interpersonal relationships to attain criticalness, and thus persistence of learning, through the exchange of valid information.

Support for explicit attention by a collaborative learning facilitator to a problematic situation affecting him or her in the model in Figure 5.5 comes from a review of the adult learning literature. A basic proposition here is that adults learn when a situation arises that they believe requires attention (Knowles 1980, 1984; Brundage and MacKeracher 1980; Burns 1995). This is the self-directedness referred to by Mezirow (1991). Collaborative learning facilitators, as the name implies, are learning at the same time as the others in the situation as they act to intentionally change (improve) a problematic situation. The model in Figure 5.5 suggests there are benefits for all participants when the facilitator is prepared to dialogue with them about the experiential learning practice that she or he is modelling. The facilitator can then engage with others about the experiential learning practice being modelled to increase
understanding. Such a practice matches Burrows' (1997) review of the literature of facilitation where learning partnerships were identified as critical in the effective facilitation of learning. It is also consistent with Brookfield’s (1993) observation that adult educators will relate better to learners encountering the trauma of change if they have been through similar situations themselves.

Modelling learning offers, for example, the opportunity to overcome the ‘map in my pocket’ lack of transparency in my facilitation identified by Westland pastoralists.

In offering this model (Figure 5.5) for discussion I am suggesting that learning for change should be occurring for the facilitator in a collaborative group setting at the same time that other participants are learning relative to their own problematic situation. This is consistent with the concept of action research, where the facilitator/researcher should also be learning about his or her practice. The model suggests that the facilitator’s situation and learning should be made explicit. It also implies that the situation and the learning of the facilitator must interconnect with that of the situation and learning of pastoralists. On that basis, the initial focus in the model of collaborative learning in Figure 5.5 is the problematic situation for the pastoralist, overlapped with the problematic situation for the facilitator.

The model in Fig 5.5 expands the Kolbian model of experiential learning into a model of a learning system that is consistent with Bawden’s (1995) self-reflexive dynamic involving the three levels of learning proposed by Kitchener (1983) and interpreted for

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57 See Table 3.3 page 48.
systemic situations by Salner (1986). Bawden's (pers comm) model refers to a critical learning system that works at its own coherence and ability to function through the three level hierarchy.

The amplification of Bawden's (1995) model that Fig 5.5 focuses on is that of the interpersonal relationships between participants in the system. The categories of learning outcomes that can occur in this model are threefold. The first two relate to participants and facilitator each learning about their problematic situations at cognitive, metacognitive and epistemic levels. The third category of learning outcomes arise from learning about relationship among group members, including the facilitator. The learning outcomes again occur at cognitive, metacognitive and epistemic levels. The model suggests that interpersonal relationships are crucial to the potential for critical outcomes in this system as they determine the validity of the information exchanged. The aim in attending to the relationships is not just the rational one of authenticity of information. It is also one of interdependence and understanding that permits the development of wise as well as practical decision-making. In all three categories of learning (related to pastoralist's situations, facilitator's situations, and relationships) in this action researching system, critical learning comes from learning at an epistemic level.

In the next subsection I refer to project experiences that illuminate the derivation and meaning of the model illustrated in Figure 5.5.
Section 5.7 Learning explicitly about problematic situations

Section 5.7.1 Examples of learning Level I

For the pastoralists, the ‘finding out’ and ‘taking action’ at learning Level I related to collecting, making sense and acting on information specific to issues about wool (e.g. selling options) or CLIs (e.g. purchasing the property next door).

For me it was ‘finding out’ and ‘taking action’ about facilitating experiential learning with pastoralists. An example is my initial exploration of alternative models and my choice of the Hawkesbury model (Macadam 1995).

Section 5.7.2 Examples at learning Level II

For pastoralist farmers ‘finding out’ and ‘taking action’ at the meta-level related to examining how we were using the skills of experiential learning as we sought learning outcomes in relation to wool and CLIs. At Westland for example this led to the message about the process creating confusion in the minds of pastoralist farmers about experiential learning. At the MTT the learning at Level II led to progression through stages of developing a format\(^{58}\) for our use of the action learning process. It also led to recognition by the pastoralists that they would not be prepared to use the action learning model in a ‘formal’ way with other pastoralists.

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\(^{58}\) These were presented earlier in this chapter under the heading ‘Implementing future experiential learning activities - my active experimentation’.
For me it was ‘finding out’ and ‘taking action’ about experiential learning that resulted in my understanding that experiential learning as a concept of learning is not outcome directed. This came through my reflection on how I was engaging with experiential learning in my task of facilitating pastoralists in experiential learning. It led to my developed understanding of experiential learning as a concept and not a real world explanation of how learning actually occurs. This involved recognition of the ‘process’ perspective offered by the Kolbian experiential learning cycle.

Section 5.7.3 Examples at learning Level III

It is not possible for me to be definitive about whether there was Level III learning for pastoralists because we did not examine learning from that perspective during the project. Level III, or epistemic learning, relates to awareness of how something is known. From the writing of Bateson (1972) and Argyris and Schon (1996) it seems that we are not usually conscious of epistemic learning (assumptions). Bateson (1972 p302) refers to “...the self-validating nature of such premises and their more or less unconscious nature.” For him true Level III learning occurs only through conscious awareness. If pastoralists became aware of their perspectives (assumptions about preparing and selling wool and CLIs) and alternative explanations of how these perspectives had developed, and might be changed, this would constitute a Level III learning outcome. Examples of possible Level III learning by pastoralists include:

* choosing to change from running a local sheep enterprise to the sale of the property and the purchase in a new area of one suited to family needs and the running of cattle;
* beginning with an issue about the future economic viability of the industry and changing to recognising the need to know, from parents, about their intentions for succession of property ownership.

A personal example of a Level III learning outcome builds on the one presented for Level II. It emerged from my examination of the epistemic position I held about facilitating experiential learning with pastoralists. An underlying assumption was my belief that experiencing learning through choosing personally relevant situations generates valuable personal knowledge for action. I was not consistently applying that epistemic assumption however when I acted to control the directions in which the pastoralists worked. The directedness arose from my belief that pastoralists and others external to the group would want a particular practical outcome as a measure of success. How I knew (epistemic learning) that I needed to change arose from awareness that what I claimed I believed and how I was acting were incongruent. Awareness that I was being incongruent created considerable mental discomfort. This led to a shift in my epistemic position from believing I knew what was a good outcome for pastoralists, to one of recognising the appropriateness of pastoralists identifying their own directions for change through experiential learning. I enacted this through facilitating the pastoralists' use of experiential learning to identify their own learning outcomes.

Because I was focusing with pastoralists on the use of experiential learning and not on levels of learning, I did not make my or their learning outcomes at any of the three levels explicit foci for discussion in our group activities.
Had I made the levels of my learning explicit to pastoralists and we had discussed what that meant for change it may have presented an opportunity to use my own learning outcomes with collaborators (the pastoralists) to explicitly generate discussion about learning. This explicit discussion could provide the partnership in learning suggested by Burrows (1997) as a critical attribute for effective facilitation. I believe this explicitness of learning has the following potential benefits:

* practitioners improving their practice when they are operating in action researching situations;

* collaborating learners able to use their observation of the facilitator’s practice as a focus for questions and discussion about how to learn. This raises the potential value of collaboration in the learning process to include how learning is occurring as well as collaboration on the content of the learning;

* reduction in the perception of any gap between the facilitator and other participants as learners, thus contributing to a more authentic collaborative learning environment.

Section 5.8 Learning about group relationships

A key dimension in the model in Figure 5.5 is of that of relationships. Examples from the field work of learning that improved interpersonal relationships and enabled learning about how to do this was not readily forthcoming, as it was only on reflection that the increased relevance of relationships emerged. However, an exploration of the potential value of learning about relationships is possible by reference to some critical experiences in the work.
The inclusion of explicit attention to learning about interpersonal relationships comes from my personal experience in the project and from the literature related to the practice of agricultural extension and adult education.

A possible interpretation arising from my observations during the project is that at times our interpersonal relationships within the group did not support pastoralists bringing forth authentic issues. Two participants said that they had raised non-authentic issues because they didn’t feel that they could bring unresolved issues to the group. Another observation with a similar possible interpretation was that two other participants in the MTT brought issues on which they have already made decisions (that is, they too didn’t bring unresolved issues). They disclosed this at the conclusion of the action learning session but said that the action learning had increased their resolve to act. In reflection I wondered if they were unable to bring unresolved issues because of a perception of poor interpersonal relationships.

The second observation occurred after, and despite, my shift to what I believed was a more collaborative facilitation style. This may mean, as Chisholm (1990) suggests, that improved symmetricality (in this case symmetricality of collaboration) may only ‘partially’ bridge differences in perceived or actual positions between participants. That is, my increased effectiveness of facilitation for collaboration in the wake of my recognition that I was being directive, produced greater democracy in direction setting as shown by the MTT's move to CLIs, but other factors were still preventing full symmetricality of power distribution. I believe one such factor was the quality of relationships within and between group members.
An additional observation suggesting that poor interpersonal relationships existed in the groups, arises from my epistemic shift to accepting that the pastoralists should identify their own directions for action\(^9\). My interpretation is that with better (i.e. more open and trusting) interpersonal relationships Westland group members could have raised the issue of my directiveness earlier and in a direct way.

The literature of applied agricultural extension does not regularly refer to the need for learning about interpersonal relationships to be initiated and continued throughout group extension activities. However, forthcoming recognition of the need at that level may be predicted by such items as Stubbs’ et al (1997) survey showing interpersonal skills as a critical - ‘must have’ - competency for rural extension practitioners. The material in the literature of agricultural extension calling for increased consideration of the sociological context\(^{60}\) (Vanclay and Lawrence 1995, Lawrence et al 1992; Campbell and Junor 1992) implicitly embraces the need for learning about interpersonal relationships. It may also be inferred from the interpretation made of the literature relating to extension by Scoones and Thompson (1993 p20). As they submit “A more sophisticated view [than depersonalised encounter] sees the relationships between farmers and external agents in terms of the continuing struggle, negotiation and compromise between different actors and networks.” A sophisticated view of relationships could be interpreted as embracing interpersonal relationships.

A reference to explicit learning about interpersonal relationships in the adult education

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\(^9\) I referred to this in Section 5.4 of this chapter.

\(^{60}\) Sociological aspects may be interpreted as including relationships from the definition provided by the Macquarie Dictionary - ‘the science of the fundamental laws of social relations’.
literature is the work of Rogers (1983 p133) who in reference to the facilitation of learning suggests "... that one of the most important of these conditions [that facilitate learning] is the attitudinal quality of the interpersonal relationship between facilitator and learner." He does not make any reference to the interpersonal relationships among other learners in a setting. He make reference to creating open and trusting relationships between learner and facilitator to enable communication, but they do not propose that the relationship become a focus for learning. It appears that focussing attention on learner needs assumes that attention to this and other principles of adult learning will automatically provide for good relationships. The material presented by Burns (1995), Knowles (1980;1984), and Brundage and Mackeracher (1980) contains an implied expectation to provide for relationships through the principles raised.

Knowles' (1980) expression of the conditions for learning includes reference to learning environments characterised by mutual trust and respect, mutual helpfulness, freedom of expression and acceptance of differences. These are characteristics influenced by relationships.

Mezirow (1981) in his attention to a charter for andragogy, includes the requirement of reinforcing the learner's self-concept. He also calls for the provision of a supportive climate for feedback, encouragement to take risks, avoidance of judgement and the provision of mutual support. These aspects impinge directly on relationships, but reference to relationships as a focus of learning is missing. Habermas (1973), for example, draws attention to practical interests depending on the exchange of valid data.
about norms, but he makes no direct reference to learning about the relationships needed for elucidating practical interests. I found no significant section of the literature specific to experiential learning that refers to the relationships in the situation as an explicit focus for learning.

There is explicit reference to the need for attention to relationships as a focus for learning in some of the philosophical literature of learning. One source is Bateson (1972 p37) who argues that, “In truth, our life is such that its unconscious components are continuously present in all their multiple forms. It follows that in our relationships we continuously exchange messages about these unconscious materials, and it becomes important also to exchange metamessages by which we tell each other what order and species of unconsciousness (or consciousness) attach to our messages. In a .... pragmatic way, this is important because the orders of truth are different for different sorts of messages.”

In a similar way Habermas (1979 p88) posits that “... moral consciousness signifies the ability to make use of interactive competence for consciously processing morally relevant conflicts of action” and that to do so arises from “... the very structures of possible interaction.” The learning model presented in Fig 5.5 makes explicit the relationships that exist among participants and between participants and the group through incorporating learning about the relationships into group activities. It infers ongoing commitment to learning about the relationships as they emerge. Such an application of learning about relationships may have meaning for one dimension of success in action researching. Zuber-Skerritt (1996a) reported an action research
project that was not successful when assessed against emancipatory criteria. Her conclusion about the lack of success included what the group identified as a ‘less than ideal’ orientation within the group and her assessment of a lack of change of governing values and behaviours. The opportunity to learn about relationships may produce an improved climate for action research through awareness of personal and group governing values and behaviours.

Support for the concept of attention to relationships is available in the literature on organisational learning. Dick (1987 p88) suggests that “Effective teamwork is most likely to be realised when each member of the group has an effective relationship with each other.” He also recognises two levels of relationship in teams. The first is between individuals within the group and the second is between each group member and the group as a whole - the group identity. He focuses on improving relationships at two levels as the goals of team building activities, and refers to it as making an important contribution to group effectiveness. Dick (1991) has practised this approach in his education of change agents for organisational development, where he initially spends time developing group relationships. He does not make specific mention of returning to relationships as a later focus of group activity, although he does maintain that as a group, they deal with issues that arise in the setting and these often concern relationships.

Schwarz (1994), also in the literature on organisational development, refers to a practice of ‘contracting’. Contracting, suggests Schwarz (1994), is a function of facilitation and initially defines the relationship between the facilitator and other participants.
Garmston (1995) recognises the same practice in the related field of staff development. He refers to a ‘group contracting conversation’ to provide understanding among participants of each others’ needs. Schwarz (1994) adds an ongoing dimension of relationships in organisational development when claiming that during contracting, arrangements occur for later diagnosing of behaviours that both enhance and hinder group effectiveness. Thus the organisational development literature includes explicit attention to relationships in a learning environment. As such it provides an example supporting my observation that my practice as an extension officer facilitating experiential learning requires attention to learning about relationships.

In the field of education Rogers (1967) is well known for his emphasis on the development of interpersonal relationships in learning situations and. He claims that his proposal is in contrast to the usual one where student and teacher assume roles. Role assumption means that there is depersonalisation of the learning situation. He maintains that gains in learning are possible where depersonalisation does not occur and where there is attention to relationships.

It may be that from that period (the time of Rogers) and in the understanding developed about adult learning by later authors, it is implicit that there is learning about relationships. If that is the case, then in my project my experience suggests a more explicit focus on seeking learning outcomes about relationships.

The need for explicit attention to relationships in collaborative learning is evident in the material relating to communication. Such collaboration, I believe, requires high quality
relationships. Argyris et al (1985) suggest that what they describe as Model I values\textsuperscript{61} predominate in groups. They contend that such values lead to non-authentic communication and require changing for effective communication to occur. Reason (1988) considers the same issue but from the perspective of the demonstrable validity of constructed collaborative outcomes. His suggestion is for sound self-reflection and a high level of collaboration. Thus it seems that in inquiry situations, it is the exchange of authentic information that enables change to occur. In inquiry then, it may be that Argyris et al’s (1985) Model II values\textsuperscript{62}, which support authenticity, develop most readily in groups where relationships themselves are authentic.

Authenticity of this type is the foundation for the validity testing sought by Habermas (1992) and Mezirow (1991) in ‘practical discourse’. Habermas (1992 p102) suggests “Practical discourse is not a procedure for generating justified norms but a procedure for testing validity of norms that are being proposed and hypothetically considered for adoption”. The validity testing is something done by the group about the ‘lifeworld’ of the group. The model in Fig 5.5 proposes that the relationships between and among group members is the ‘lifeworld’ of the group and should be open to discussion and potential learning. It is Bateson’s (1972) different ‘orders of truth’, in this case orders of truth related to relationships, about which learning is taking place.

I suggest that attention to relationships as portrayed in Figure 5.5 will contribute significantly to developing an extension officer-pastoralist interaction as a self-

\textsuperscript{61} These are 1) to achieve the purpose as the actor (facilitator) defines it, 2) win, do not lose, 3) suppress negative feelings and 4) emphasise rationality (Argyris et al 1985).

\textsuperscript{62} Model II governing values are 1) valid information, 2) free and informed choice and 3) internal commitment (Argyris et al 1985).
producing system (Mingers 1995). That relationships have a role to play in this area is understandable from Mingers reference to communication as an example of an abstract autopoietic system. He refers to the nervous system as a means of connection or communication between separate cells arguing that it allows the cells of an organism to respond to the relations between events rather than to the simple events themselves (Mingers 1995). The model in Fig 5.5 has conceptually suggested that relationships among individuals and between individuals and the group\(^\text{63}\) represents a connection between events that is fundamental to a response, as in Mingers’ nervous system. The model also proposes that attention to relationships as an aspect of the group’s ‘lifeworld’ will generate suitable responses that positively influence the group’s capacity to learn about the initial problematic situations for those involved.

My appreciation of the significance of a focus on learning about relationships is captured in Fig 5.5 by emphasis on the levels of learning as follows:

* **Level I learning**, wherein it is “within meaning scheme” change in relationships that occurs, for example the accommodating of others idiosyncrasies of communication, through acknowledging and talking about them;

* **Level II learning**, wherein we monitor learning about relationships at level I; and

* **Level III learning**, wherein learning takes place that transforms relationships.

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\(^{63}\) That is the ‘group identity’ to which Dick (1987) refers.
An example of Level III learning may be derived from epistemic learning about acting defensively with others, a relationship phenomenon, in an action learning setting. In explicitly focusing on learning about relationships at all levels including an epistemic level, I explore with the others the fact of my perception of their intentions. I become aware (that is I learn at a cognitive level) that I attack others’ personalities in a way that stops them continuing to raise their questions of me ("... but what would you know anyway, you’re only a .....", and said in a louder voice.). In our learning I realise that my way of knowing when to respond (metalearning) defensively is when I feel emotionally upset by questions (that is I do not seem to have an answer and feel I should). My defensive response seems to arise through my perception that others intentions are to criticise my actions for their own gain. However, through discourse I come to understand their intention is not to criticise me for their own gain. From this I recognise that there is a limit to my knowing others intentions if I rely only on my feelings in those situations (epistemic learning). I learn that when I am feeling emotionally upset in such circumstances it does not have to mean that others are trying to criticise me for their own gain. I have recognised a limit to my knowing what others’ intentions are and through this I have transformed our relationship. The changed perception allows for choices of action in group activities based on relationships that embrace support rather than criticism.

On the basis of my observations of project work and the foregoing literature there appears to be support for the inclusion of specific attention to relationships in learning situations in agriculture. The support suggests that attention to relationships can
contribute significantly to the development of criticality in the learning system because it provides for communication based on authentic information exchange.

**Section 5.9 Summary**

In this chapter I proposed five conclusions related to my future active experimentation in facilitating experiential learning. They are:

1. That I now recognise experiential learning as a conceptual model of a learning process. I initially viewed the concept of experiential learning as a sequence of activities directed towards producing an outcome. It was reflection on observations in the process of my action researching that produced my change to a more sophisticated understanding of the experiential learning model.

2. That a model of experiential learning that more fully contains the ideas of Kolb (1984) offers richness of knowledge development in interactions between pastoralists and myself. The pastoralists recognition of it as a model through which they would be more ready to engage with other pastoralists about problematic situations was a confirming factor.

3. That action researching is social experiential learning. This conclusion arose from my developing understanding that while action researching I was experientially learning.
4. That an expanded model of an action research system offers a learning model that I will implement. The model:
   a) Enables me to reposition myself structurally as the agricultural officer/facilitator interacting with the pastoralist farmers. In doing so the model highlights the appropriateness of my having an explicit problematic situation I am focussing on that overlaps with those of the pastoralists. In the model I suggest that as a collaborative learning facilitator I should be open about my own learning relative to this issue and offer it as an experiential learning model for dialogue about the learning process.
   
b) Directs explicit attention to learning at all three levels about relationships among group members and between group members and the group identity. Learning that enhances relationships provides for criticalness of learning outcomes about problematic situations through promoting the exchange of valid information.

5. That experiential learning is a robust process of learning. This conclusion arises from my observations of my experiential learning about experiential learning while working with the group. The conclusion is that it is a sufficiently robust process to allow for the development of an understanding about its conceptual framework while using the concept to provide a process that leads to situation improvement.

These five conclusions identify learning outcomes I have made about experiential learning. They provide foci for my active experimentation in experiential learning.
situations between myself and pastoralists. However, if learning outcomes for change are the goal of experiential learning (through the development of epistemic learning) it may be reasonably argued that the responsibility of reaching those levels must, at least initially, rest with the agricultural officer facilitating the activity.

From the conclusions presented in this chapter facilitation has emerged as an issue of significant in relation to learning by participants. It is that facilitation with which I will deal in the next two chapters.
Chapter 6  My engagement with propositional knowledge in the literature of facilitation

Section 6.1 Introduction

In this chapter I outline the propositional knowledge\textsuperscript{64} that informed my reflections related to thesis Argument II presented in Chapter 1. I follow this in Chapter 7 with reflections, observations and interpretations related to my field observations in the light of this knowledge and the concepts developed as a result. The structural links between Chapters 6 and 7 are the same as those between chapters 4 and 5. I described my reasons for this sequence and structure in the introduction to Chapter 4.

The propositional knowledge in this chapter, and my interpretation of it, informed Argument II presented in Chapter 1. That argument relates to the learning outcomes I gained from facilitating experiential learning with pastoralists.

In introducing Chapter 4, I referred to the reasons that I believe contribute to the relative dearth of literature relating to the applied or practical use of experiential learning. The same holds for material on the facilitation of experiential learning.

In reviewing literature relevant to my interest in facilitating experiential learning with

\textsuperscript{64} The Macquarie Dictionary defines a proposition as ‘anything stated or affirmed for discussion or illustration’. Propositional knowledge is knowledge already known (affirmed) and available from sources other than our own experiences. In learning it is learning for knowing (Bawden 1990).
pastoralists, I focused on material related to the role of the facilitator in the development and application of the skills of learning by learners.

I begin with the issue of individuals learning at a higher level without input from a facilitator and examine the frequency of unfacilitated higher level learning before considering the value of facilitation. This is followed by an examination of published support for the facilitation of experiential learning. In so doing I attend to the issue of making the processes used in the facilitation of experiential learning apparent (or transparent) to participants and I consider the effect of transparency of process on collaboration and participation amongst learners.

A particular aspect of facilitation to which I refer is the concept of facilitated discussion. By ‘discussion’ I mean open group discussion that promotes new understanding and the development of participants’ perspectives about issues. Cayer (1997), Isaacs (1993), Bohm (1990) and Senge (1990) refer to such facilitated open discussion as ‘dialogue’.

Another aspect of facilitation referred to is that of ‘congruency of action theories’ (Argyris and Schon 1996). Argyris (1987) posits that action theories are the guidelines we use to design action to achieve intended outcomes, and to monitor the effectiveness of our action in our interactions with others. He suggests that because of the need for their regular use we hold these theories as tacit knowledge about which we don’t consciously think. He suggests that they take two forms, the action theories that we claim we use (espoused theories) and the action theories that can be inferred from our
actions (theories-in-use). His claim is that matching these leads to success in interactions. In this chapter I consider congruency of action theories in relation to facilitation.

**Section 6.2 Learning at a higher level without facilitation**

The issue examined in this section is the likelihood that learners can learn at a higher level from their experiences without input from a facilitator (whose role would be to assist them to learn at the higher level). The literature suggests that this happens but that facilitation enables learning how to learn to be an explicit focus and this provides for the ready future use of learned concepts.

It can be argued that rather than focus on whether or not higher level learning can occur autonomously, it is more fruitful to explore how facilitation can help to ensure all three levels are engaged (Bawden pers comm). I have chosen to focus initially with autonomous learning because learning is a human activity and explicit, structured facilitation of it is a relatively recent occurrence. As such autonomous learning presents the opportunity for beginning to understand how higher level learning can be contextualised in the situation of the learner.

Rogers (1969) suggests that individuals are the instruments of their own learning arguing that “Even when the impetus or stimulus comes from outside, the sense of discovery, of reaching out, of grasping and comprehending, comes from within” (Rogers 1969 p5). It is his suggestion that an individual’s learning takes place through
their own experience of the learning situation. Boud and Walker (1990) concur, suggesting that “While facilitators, and others, can help create the milieu [of learning], it is the learner who creates the experience” (p62). These observations are consistent with the concept of self-directedness or autonomy of learning (Mezirow 1991; Brookfield 1993; Bawden et al 1984) and the phenomenon of higher level learning occurring without the aid of a facilitator.

Perry’s (1970) work related to formal education situations also identifies that individuals learn at higher levels without facilitation. He uses individuals’ learning while attaining a college education to create his framework for describing cognitive development. The higher level learning or cognitive development that takes place transcends the content of the task (Perry 1970). It comes about through the learners’ engagement with the experience of learning itself, as they consider how they learn about the task. This is supported by Klaczynski (1994 p165) who claims that “Individuals not only change the solutions they use for everyday problems as they progress from one task to the next, but as they encounter new demands and conflicting expectations, they change the way they interpret and explain events within these contexts.” The existence of cognitive restructuring that accommodates evolving understanding is recognised by Nonaka (1994 p17) with his proposition that “Individuals are continuously committed to recreating the world in accordance with their own [changing] perspectives”. Such changes can be equated with the meaning scheme alterations and perspective transformations presented by Mezirow (1981; 1991) as his interpretation of higher level learning.
Klaczynski's (1994 p141) work is more recent than Perry's and provides further evidence of "... a relationship between practical intellectual development and life course contexts." He, like Perry, worked with students, and his results support the concept of cognitive progression or higher level learning stimulated by life course events. "With the problem-solving results, these results imply that everyday problem solving is not only a mechanism that allows individuals to cope more effectively with contextual demands, but also that everyday problem solving develops in response to these demands ..." Klaczynski (1994 p165). His work highlights how increasing interactions over time, within their chosen educational field, enabled students to learn how to deal with situations that they had previously regarded as unsolvable dilemmas. They did this in ways that provided "... smoother and potentially less anxiety-provoking interactions with other members of particular contexts and reduced the discrepancy between events that occur within those contexts and the individual's beliefs about those events" (Klaczynski 1994).

From the work of Perry (1970) and Klaczynski (1994) it appears that higher level learning about 'life' events prompts cognitive development. As such cognitive development itself represents higher level learning for change where it progresses to level three\(^{65}\) or epistemic cognitive development.

Klaczynski (1994) observed that while his results showed cognitive progression in one field, there was only a low correlation between specific practical problem solving and general intellectual functioning. He suggests that cognitive progression developed of

\(^{65}\) I have interpreted higher level learning in Section 4.3.
necessity in one field, is not necessarily followed by the transfer and application of the
skills of that state to other fields of the individual's endeavour.

Nonaka (1994 p20) makes a similar assertion when proposing that “... knowledge ...
may be limited and, as a result, difficult to apply in fields beyond the specific context in
which it was created.” Neither Perry (1970) nor Kitchener (1983) seem to have
addressed the transfer of cognitive progression across different domains, yet clearly this
is a matter of some significance. Of particular significance is the knowledge that the
cognitive progression or higher level learning reported by Klaczynski (1994) came in
response to interactions with non-facilitated events.

Brookfield (1986) agrees that individuals learn without the aid of facilitation. He
suggests that “... ‘lifelong learning’ is an empirical reality .... in that adults learn
throughout the developmental stages of adulthood in response to life crises, for the
innate joy of learning, and for specific task purposes” (Brookfield 1986 p26).
However, he also recognises that some adults reject such events and opportunities as
triggers for change arguing that “There are many individuals who are chronologically
adult but who show a marked disinclination to behave in anything approaching a self-
directed manner in many areas of their lives.” (Brookfield 1986 p26). He proposes that
it is the experiential learning that takes place for individuals, either formally or
informally, that takes them through the stages of cognitive development. A
construction of these stages comes from the work by Perry (1970) and Kitchener
suggestion of the link between learning and cognitive development. She proposes that
it is through dealing with ‘ill-structured’ problems that individuals progress in cognitive development. It is in informal situations that Brookfield (1986) and Kitchener and King (1981) recognise the occurrence of unfacilitated higher level learning. Kitchener and King (1981) also supports the concept that individuals can learn without facilitation at a higher level. They use the concept of reflective judgement to describe how individuals learn in ill-structured problematic situations, reinforcing the idea raised by Brookfield (1986), that not all individuals progress naturally or at the same pace through the constructed stages of cognitive development.

From these works I conclude that the implications for facilitation are that:

* individuals can learn for themselves through personal experience, at all learning levels,

* an individual’s learning provides for progression through the cognitive stages recognised by researchers in the field of learning,

* an individual’s cognitive progression can represent higher level learning, and

* individuals can consciously or unconsciously reject opportunities for higher level learning.

**Section 6.2.1 Learning through crisis or tension**

In this section I consider the idea that much of the unfacilitated, higher level learning that occurs does so in what can be termed ‘crisis’ situations. My interpretation is that while unfacilitated higher level learning does occur, it does not happen regularly about
issues other than those creating crises and even in such situations paralysis of learning rather than stimulation can occur.

I also raise the issue that when higher level learning occurs in unfacilitated situations it is often outside the awareness of the learner. The inference is that the process is not one can that be consciously recalled for continuing use in acting.

Both Habermas (1979) and Salner (1982) refer to crises or tension as prompts for learning and the impetus for progression through the formative stages of an individual’s development. In a similar vein Perry (1970 p88) presents the proposition that student learning (at a higher level) took place as a response to crises. This occurred when their attempts to incorporate new observations into existing frameworks resulted in what he called “... a system of increasing complication and incongruity.” The potential to learn at a higher level, could therefore be present because of the tension or dissonance for students. Learning, he argued required students to confront the existence of diversity66 and it required the skills of contextual thinking as an alternative to “..... helpless despair in a world devoid of certainty” (Perry 1970 p88). If the learning opportunity is taken up by the learner, it can lead to the perspective transformation of Mezirow’s (1991) concept of learning.

Thus it appears that the potential for learning at a higher level can be triggered by crisis situations.

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66 From previous ways of viewing the world.
Section 6.2.2 The value of awareness of how learning is occurring

In this section I use the literature to argue that for the most part individuals are not aware of how their learning is taking place, but that being aware enables them to choose when to learn.

At a day to day level of operations, Langer (1982) has described the phenomenon referred to as mindlessness. She is referring to how actions at a cognitive level can be undertaken unconsciously and unproductively. Change at that level of cognitive processing requires conscious attention to metacognitive learning.

Argyris and his colleagues (Argyris and Schon, 1978; Argyris et al, 1985; Argyris 1987; Argyris, 1991a; Argyris and Schon 1996) suggest that individuals usually can be shown to demonstrate incongruity between what they espouse (claim) as foundational values for their behaviour and the values that can be interpreted from their actions. They argue that cognitive unawareness of the values (assumptions) underpinning behaviour is the norm.

Kitchener and King (1981) also recognise the unconscious holding of assumptions. In the presentation of their Reflective Judgement Model they suggest that most of the assumptions on which individuals found their shifts in epistemic position are not explicit. Argyris and colleagues and Kitchener and King are referring to the assumptions individuals use to frame how learning or change takes place and for change to occur at that level involves epistemic cognitive learning.
A lack of explicit attention to epistemic assumptions may explain why Klaczynski (1994), Salner (1986), Kitchener and King (1981) and Perry (1970) suggest that even learning that delivers cognitive progression may be less available for conscious recall and thus use in other situations even though it is founded on epistemic shifts.

My interpretation is that the above authors suggest that while learning at a higher level occurs it does not do so regularly or explicitly. This ‘lack of explicitness’ or knowing how learning is occurring may mean that its application in other situations is contingent upon that individual’s recognition (implicitly or unconsciously only) of its relevance to the new situation.

Burns (1995), in writing about the psychology of learning, explains autobiographical learning as “We do not attend consciously to learn most of our behaviour” (p101). As an example, he explains how learning societal behaviours arises through involvement in the culture of our communities, and the behaviours develop as “... we soak up the norms ...” (p101). This is autobiographically learning\(^{67}\) through self-reflection as we “... interpret our actions by the way other people respond to us”. As such learning is self-reflective but outside awareness, and the process is not explicitly interactive with others.


\(^{67}\) Learning about ourselves in relation to a particular situation, without reference to others either in or not in the situation.
and King (1981) and Perry (1970) are referring to the lack of awareness that individuals have of how they are learning. In general they advocate that the value in becoming aware is that it enables a learner to decide how to act in complex problematic situations. Bawden and colleagues at Hawkesbury (Bawden pers comm) have sought this outcome through experiential challenges based on the work of Salner (1986) and which seek to develop epistemic cognitive processing accessed through meta-cognitive processing. Similarly, Sadlersmith (1996) uses the theoretical foundation of experiential learning and learning styles to suggest attention to them can make explicit the learning process to produce increased learner self-reliance and autonomy.

So the value in knowing how to learn derives from initially becoming aware of an inability to improve a problematic situation because of the “way or ways” being used to address or learn about the situation. If action for change to the “way” of addressing or learning is taken at that stage it represents learning at a metacognitive level. What can follow is the bringing into focus an awareness of the influence of the epistemological frameworks that are operating. Action for change taken at that stage can alter epistemic frameworks and represents learning at an epistemic-cognitive level.

If learning that embraces all three levels of learning to achieve epistemic change is rarely practised by individuals, then the role of a facilitator in developing self-critical learning offers a means of promoting change in problematic situations. In Section 6.3 I consider literature relating to how facilitation can enable learning.
Section 6.3 Facilitation and the opportunity for enhanced experiential learning

This section explores the proposition that facilitation may convert learning potential, or the unawareness of learning that is occurring, into learning at higher levels. In doing so it examines the idea of whether or not facilitation can promote the practice of open discussion or ‘dialogue’ amongst learners and facilitators to develop expanded understanding about learning.

Lack of awareness of how learning is occurring, and thus the lack of awareness of the potential for using the process in other situations, was referred to earlier. Heron (1992) has agreed that facilitators are themselves learners in relation to facilitation. He recognises that some facilitators are unaware of the influence of their role in facilitation. This is a theme echoed by Schon (1983; 1987; 1990) and Argyris and Schon (1996). The material Heron (1992) presents deals with the politics of facilitation and how facilitators of learning should pay attention to their own metacognitive levels of learning about their facilitation.

Ackoff (1988 p241) suggests that although one cannot learn for another, which means that the only kind of development is self-development, it is possible to “... encourage and facilitate the development of others .....”. Heron (1992) suggests that a facilitator can promote learning through modeling learning behaviours that “... elicit the emergence of ..... autonomy and wholeness ...” in the learner’s behaviour. Bawden et al (1984) and Macadam and Bawden (1985) also recognise facilitation of learning as
appropriate in agricultural education situations. They have focussed on the facilitation of the process of learning from a learner-centred perspective.

Mezirow (1991) is another to recognise that there is a role for a facilitator in developing learning potential. He refers to educational interventions that assist adults to learn. He is referring to learning for transformation of meaning perspectives.

Habermas (1979) supports the usefulness of facilitation in learning. His examination of three concepts of developmental maturation draws similar conclusions to those of Perry (1970) about cognitive development arguing that progression through the formative stages of an individual’s development (which can be likened to Kitchener's (1983) cognitive, metacognitive and epistemic stages) is “... as a rule is crisis-ridden” (p74). That Habermas (1979) is inclusive of metacognitive and epistemic levels of learning can be inferred from his reference to the development of autonomy. He claims the ego acquires independence or autonomy through successfully solving problems or crises and through the increase of skills needed to do so where these problems or crises arise in relation to a person’s technical, practical and emancipatory interests. He contends that communicative action, that is action oriented to arriving at understanding through rational argument, realises the potential for change through learning. Such change can be encouraged and facilitated through the provision of structures supporting discourse (Habermas 1992). He refers to ‘linguistically mediated interaction’ (p201) or discourse, as the means of providing for the communicative action referred to earlier. Habermas’ (1992; 1979) discourse equates with the concept of ‘dialogue’ presented by Schein (1993), Isaacs (1993), Bohm (1990) and Senge (1990) where ‘dialogue’ is “... a flow of
meaning in the whole group, out of which will emerge some new understanding” (Bohm 1990). Safran and Messer (1997) refer to the use of ‘dialogue’ to hasten the integration of different epistemologies and methodologies in clinical psychology. Their suggestion is that an ongoing ‘dialogue’ of the type referred to here can clarify differences among proponents of different theories and worldviews and provide a new understanding for each founded on contextualism and pluralism.

Nonaka (1994) has proposed a model of a spiral of knowledge creation that is an interplay between individuals’ tacit and explicit knowledge. “As the concept resonates around an expanding community of individuals, it is developed and clarified” (Nonaka 1994 p15). He suggests that this occurs naturally in organisations but also suggests that the frequency and quality of the occurrence of knowledge creation arising in this way can be increased and enhanced. Cayer (1997), Schein (1993), Isaacs (1993) and Bohm (1990) are promoting similar outcomes with their concept of a ‘dialogue’.

Schein (1993) has explored the role of ‘dialogue’ in relation to bridging the differences between organisational cultures and subcultures expressing its capability as enabling “.... 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” (p43). In this form, Habermasian discourse or Bohmian ‘dialogue’ presents itself as a means whereby facilitators can develop the potentialities of learning situations. Cayer (1997) takes this further in suggesting that freeing ‘dialogue’ from its ‘utilitarian yoke’ and

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68 Parks (1997) refers to the requirement to integrate scientific and humanistic principles in psychology and argues it is an objective of humanistic psychology to do that. With integration will come “... cross-disciplinary resource sharing that embraces the strengths of the humanistic and materialistic scientific communities (p67).” Parks’ case is presented through a case study of integrated use of scientific and humanistic principles.
combining it with action science to communicate about differences may provide access to emancipatory learning that I have suggested is a particular case of epistemic learning\textsuperscript{69}.

My interpretation is that the changes in understanding that arise in ‘dialogue’ equate with the conceptualisations representing learning at a higher level about the issue at hand.

Dick and Dalmau (1991) in their development of intervention applications from the action science work of Argyris and Schon, present conditions that must be met to create change at a metacognitive level. They suggest applications for their work by ‘change agent’ practitioners and in doing so, register their support for the role of facilitation in developing change or learning potential. Senge (1990) and Boxer and Kenny (1990) are among those in the field of organisational development and consultancy who support facilitation for learning.

Argyris and Schon (1996) and Dick and Dalmau (1992) draw attention to the impact of the facilitator’s level of congruency of action theories of facilitation. They suggest that this will impinge on the level of learning achieved by participants and directly affect the functions of participation and collaboration.

The facilitation proposed by Dick and Dalmau (1991), Senge (1990), and Boxer and Kenny (1990) revolves around ways of generating ‘dialogue’. Senge (1990 p246)

\footnote{69 See Section 4.3, page 79.}
draws on the writing of Bohm and proposes that “In the absence of a skilled facilitator, our habits of thought continually pull us towards discussion and away from dialogue”. ‘Dialogue’ he has previously described as “...allowing the group to discover insights not attainable individually” (p10). His description of discussion, again taken from Bohm, highlights its difference to dialogue “... you fundamentally want your view to prevail” (p240).

“... Changing .... structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective ...” has been termed perspective transformation by Mezirow (1991 p167). He posits that transformations arise because of “... the accretion of transformed meaning schemes or through some externally imposed epochal dilemma ...” As well, he suggests that it may come through insightful discussion, a description that matches that of Bohm’s (1990) ‘dialogue’, or through contact with other events that contradict our established perspective. The impact of these challenges, argues Mezirow (1991) causes “pain” through its questioning of deeply held personal beliefs and values. The need for transformed meaning schemes precipitated by dilemmas or the contradictions, may arise through facilitated events that create self-awareness.

Argyris and Schon (1996) present the technique of ‘two column analysis’ as a means of focusing on an interaction and exposing it to scrutiny in a dialogue that generates

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70 In two-column analysis the righthand column records what the person recalls of the actual events and conversations. The lefthand column is their thoughts and feelings while each of the events and conversations took place. As well, Argyris and Schon (1996) say that “... we are not claiming that these are the words they actually used ...... Nor is it necessary ... to make such a claim. These cases are adequate to infer the writers’ respective theories-in-use as manifest by the data of their cases.”
new interpretations and understanding. Dick and Dalmau (1992) use workbooks to generate dialogue between learners and facilitator. Their targeting of the identification of the learner’s assumptions about the interaction in question equates their technique with ‘dialogue’ illustrating the contention of Schein (1993) that ‘dialogue’ focuses on identifying the underlying assumptions “... particularly our own assumptions ...” (p43). Like Bohm (1990), Dick and Dalmau (1992) allow for the development of new understanding from the ‘dialogue’ and refer to the importance of surprises in the analysis.

Boxer and Kenny (1990) developed their ‘dialogue’ principles from the field of cybernetics. In dealing with their development of ‘The Economy of Discourses’ they suggest that ‘dialogue’ can contribute to client learning and their increased capabilities for designing improved future states.

Dick and Dalmau (1991) and Boxer and Kenny (1990) imply that the facilitator has a role to play in making clear to the learner, how the process of learning is taking place. The learner is then able to utilise this awareness in other situations.

In summary:

* facilitation may convert learning potential into learning at metacognitive and epistemic levels, but

* this requires that attention be paid to the adult learning principle that learners collaborate with facilitators about the process of learning, and to enable this

* requires the facilitator to create transparency of, and about, the learning process.
Section 6.4 Developing congruency of action theories of facilitation

In this section I explore the development of congruent action theories of facilitation of experiential learning. I consider transparency of facilitation and collaboration between facilitator and learners.

Transparency is not a term in general use in the literature about adult or experiential learning and its facilitation. As a general definition transparency means ‘to make something manifest or obvious or clear’ to others. The link between transparency and adult learning can be through collaboration. Collaboration is mentioned as a key principle of learning by Brookfield (1986), Knowles (1984; 1984a) and Mezirow (1981). Collaboration is advocated by these authors in relation to:

* identifying learners’ needs (that is, what it is about which they wish to learn)
* how the learning is to take place (that is, the methodologies available for use in the learning), and
* evaluation (that is, how the learners will assess their learning).

Collaboration requires that the facilitator is open or transparent about needs identification, methodologies and evaluation. Transparency here allows the learner to know how learning is taking place while also clarifying choices about how such learning is progressed and sequenced as is suggested by Heron (1992).
Section 6.4.1 Approaches to examining congruency of theories of action

Within the concept of action science developed by Argyris and Schon (1996) successful facilitation requires a match between the facilitator’s espoused (claimed) and in-use (inferred from action) theories of action. The theme of congruency of theories of action is one presented by Argyris and his colleagues (Argyris and Schon 1996; Argyris 1987; Argyris et al 1985; Argyris and Schon 1978) as fundamental to practitioner effectiveness particularly in relation to higher than single loop learning. A similar perspective was adopted by Bawden and Packham (1993) in their educational practice in relation to systems education in which their institution undertook a self-study. Such a study has been described by Torbert (1983 p272) as “... necessary if any institution is to become increasingly effective over the long run (3 to 7 years)...”

In a similar way, Piggot-Irvine (1996) used ‘critical friends’ in reflection to improve her practice of introducing action research in a university setting. She did this through making a process framework transparent to participants for scrutiny arguing that she changed to “One simple model outlined in order to provide [a] structural framework upon which other models could be hung (p7).”

In a similar way for action learning Webber and O’Hara (1997) refer to successful set formation as deriving from set facilitators being clear about their own philosophy of learning, a process foundational to developing congruency of theories of action. They argue that valuable learning comes from awareness of one’s own assumptions and beliefs about learning and an openness to being challenged and changed. Such a
claimed belief can be enacted through transparency wherein participants are aware of the facilitators' assumptions and can challenge for change.

Bawden and Packham (1993) and Piggot-Irvine (1996) examined the underlying assumptions being brought to the facilitation interaction. Their examinations involved exploring the level of congruency between their assumptions about facilitation and how that facilitation was practised. Argyris and Schon (1996) refer to the level of congruency between espoused theory and theories-in-use as a focus for action science when seeking to change practice, and it seems that the ability to display congruency is dependent on the epistemic position held about the interaction.

Argyris and Schon (1996) have demonstrated that theories-in-use can be interpreted from an individual's actions and that most people are unaware or unconscious of mismatches between their espoused theories and their theories-in-use. It is mismatches that produce what they call the Model I values that govern behaviour rather than those of Model II.

The governing variables to which Argyris and his colleagues refer have remained the same through to their current writing (Argyris and Schon 1996). Table 6.1 shows the governing variables and their expected consequences.
Table 6.1 The governing variables and consequences of Models I and II presented by Argyris and Schon (1996)

<table>
<thead>
<tr>
<th>Model I</th>
<th>Governing variables</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- actor defines goals and tries to achieve them</td>
<td>- defensive interpersonal and group relationships</td>
</tr>
<tr>
<td></td>
<td>- win, do not lose</td>
<td>- low freedom of choice</td>
</tr>
<tr>
<td></td>
<td>- minimise generating negative feelings</td>
<td>- reduced production of valid information</td>
</tr>
<tr>
<td></td>
<td>- emphasise rationality</td>
<td></td>
</tr>
<tr>
<td>Model II</td>
<td>Governing Variables</td>
<td>Consequences</td>
</tr>
<tr>
<td></td>
<td>- valid information</td>
<td>- minimally defensive interpersonal and group relationships</td>
</tr>
<tr>
<td></td>
<td>- free and informed choice</td>
<td>- high freedom of choice</td>
</tr>
<tr>
<td></td>
<td>- internal commitment to the choice and constant monitoring of its implementation</td>
<td>- high risk taking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The likelihood of double loop learning is enhanced.</td>
</tr>
</tbody>
</table>

Argyris and Schon (1996 p80) suggest that the technique of two column analysis provides material “... to identify discrepancies between the writer’s espoused theories and the theories-in-use built into their actions.” They further claim that “Awareness of such discrepancies makes it possible for the writers to assess the degree to which they have been skillfully unaware that their behaviour is counterproductive to their intentions.”

Dick and Dalmau (1992) have provided a further step in the interpretive process of determining where discrepancies exist between espoused theories and theories-in-use. They have done so through relating the Argyris and Schon (1996) concepts of Model I and Model II governing variables with actions that typify behaviours matched to one or other of these. As well, the actions are consistent with the governing variables (values) that Argyris and Schon (1996) attribute to each model.
Brookfield (1992) has suggested a number of strategies for identifying assumptions. Of the five he presents, four use contrived situations involving ‘fictional characters’ (scenario analysis), ‘role reversal’ (critical debate), ‘hypothetical situations’ (simulations) and ‘identify others’ (heroes and villains). These each allow those involved to distance themselves from their own activities, but to in some way still engage with real experiences. His fifth strategy is similar to that of Dick and Dalmau’s (1992) developments with Argyris and Schon (1996) and their Model I and II governing variables. It is the approach of critical incidents, and it “... helps people to be aware of the assumptions framing their practice through analysis of their direct experience” (Brookfield 1992 p18). Piggot-Irvine (1996) used critical friends in a similar capacity to identify her “espousal-practice” gap.

Another practice for identifying the assumptions made about a situation as a basis for action, is that of memory work. Like two-column analysis, memory work is written by the person wishing to reflect. This is reported by Schratz (1996) for institutional settings and like the other methods mentioned above, it aims to provide a focus for developing congruent theories of action and thus changed behaviour. The methods presented here can provide material to demonstrate the governing values evident in a person’s recollections of their actions. Critical reflection on those recollections can be used to improve practice.
Section 6.4.2 The relationship between congruency of action theories and epistemic positions of facilitation

Matching underlying assumptions of facilitation with action to maintain congruency of action theories involves examining the epistemic assumptions of facilitators.

Kitchener and King (1981) deal with identifying epistemic assumptions in their reflective judgement model. They inferred students self-unrecognised cognitive positions from student expressions about issues in their learning. From such positions they developed a model of reflective judgement of student learning which “... focuses on describing the development of epistemic assumptions and how these assumptions act as meaning perspectives that radically affect the way individuals understand and subsequently solve problems” (p160).

Interpreting this in relation to facilitation, suggests that epistemic assumptions or governing variables are influential in determining the effectiveness of facilitation in delivering its intended outcomes. Epistemic assumptions are the facilitator’s understanding of the nature of knowledge and limits of knowing about their facilitation which in turn influence how facilitation is practised.
Section 6.4.3 Linking underlying assumptions about facilitation and reflection-in-action

Action arising from reflection-in-action is founded on assumptions made at an epistemic level (Schon 1983; 1987 and Boud and Walker 1990). The action occurs in response to “surprising” happenings, and is action that is forthcoming both with and without conscious attention to what action to take (Schon 1987). Thus response to reflection-in-action in facilitation is founded on the epistemic assumptions held about facilitation by the facilitator. An explanation of such a response comes from Kitchener and King’s (1981) proposal that positions held epistemically influence how people respond to experiences. From this it may be argued that theories-in-use (how we act) are matched to espoused theory (how we claim we act) when the epistemic position (assumptions) an individual holds is matched with what they espouse. On that basis it seems possible to suggest that for a facilitator to act transparently with learners, she or he must hold an epistemic position founded on assumptions that place transparency within their mode of facilitation. From the work of Kitchener and King (1981) and Argyris et al (1985) it would be the same for all elements of facilitator behaviour.

When the facilitator’s epistemic assumptions are ones of transparency of learning and facilitation, the facilitator will respond automatically (reflection-in-action) (Schon 1983; 1987 and Boud and Walker 1990) and transparently in facilitation situations. They will thus be observed by learners to continue to demonstrate congruency between what they say and what they do in facilitating learning.
Section 6.5 Summary

Interpretation of the propositional material related to the facilitation of learning suggests that individuals can learn through personal experience at all learning levels without input from a skilled facilitator.

It seems that learning at what might be called a higher level (that is, learning in which double loop learning occurs) may begin with situations of crisis. The crisis may be generated by stimuli internal or external to the individual.

However, my interpretation from the literature is that while learning at a higher level occurs, it does not occur regularly or explicitly. The lack of explicitness of how learning is occurring may mean that its application in other situations remains contingent upon an individual’s recognition (implicitly or unconsciously only) of its relevance. The suggestion is that this does not happen regularly and thus learning at a transformative level\textsuperscript{71} is not regularly in use.

However, facilitation may convert learning potential into learning at metacognitive and epistemic levels. For that to occur requires attention to the adult learning principle wherein the learners collaborate about learning in the form of awareness of learning about their learning. Such collaboration involves the facilitator in the role of acting to create transparency of, and about the learning process, at all levels.

\textsuperscript{71} That is, at a level where meaning schemes themselves are altered.
From my interpretation of the literature transparency of facilitation may be viewed in the following ways. The first occurs at task level where openness of process and involvement of learners in determining needs and modes of learning occurs. At that level, transparency of facilitation provides for collaboration between facilitator and learner to provide learner directed learning.

The second way is that of congruency between the espoused theory of the facilitation of learning held by the facilitator, and the theories-in-use that the facilitator applies in his or her operations with learners. For this latter perspective to be apparent in the practice of a facilitator, the espoused theory must be one of transparency, held at an epistemic level, so that it is also the theory-in-use of the facilitator. The reason for this is that when reflection-in-action takes place in a facilitated learning situation, it is the theories-in-use that will be manifest. It appears that if a theory-in-use of transparency of facilitation is held at an epistemic level then it will be the theory that directs reflection-in-action for the facilitator.

Finally, there is transparency of what the facilitator is feeling, understanding or interpreting in the interaction that is occurring with the learners. At this level, it is authenticity of interaction by the facilitator with the learners that is the focus of transparency. It involves modeling the learning behaviours of self-reflection and collaboration with learners about those reflections.
Having explored a range of literature relating to facilitation, it is now time in Chapter 7 to consider the facilitation activities of the project, and to consider them in relation to the material that has been presented.
Chapter 7 Concerning new conceptualisations and their action outcomes for pastoralists and the impact of my facilitation on these aspects of developing the experiential learning skills of pastoralists

"Well, I’m just a soul whose intentions are good, 
Oh lord, please don’t let me be misunderstood.”

(Benjamin, Marcus and Caldwell 1964)

Section 7.1 Introduction

In Chapter 7 I develop the theme of exploring my facilitation of experiential learning from my experience with the pastoralists. Reflection on my project work suggests that two major factors influenced outcomes as I sought to use adult learning principles to facilitate the development of collaborative and participative extension. The first is that previous experience helps explain action taken or not taken by pastoralists and/or myself (as facilitator) as a result of our group activities. The second is that the level of congruency of my action theories of facilitation influenced outcomes.

In dealing with the two factors I recognise:

* That my initial interpretation of the experiential learning literature did not include the need for particular attention to facilitation in other than the process capacity\textsuperscript{72} of presenting the experiential learning cycle. This was discussed in Section 5.4.

\textsuperscript{72} Reference is made to this situation arising for Boud et al (1985) and for Boud and Walker (1990).
* That my facilitation activities influenced the learning outcomes of the pastoralists.

My reflections show that I initially sought to ‘make’ pastoralists learn, that is I wanted them to reach outcomes I thought suitable. There was a change when I recognised the unconscious use of my position of power as facilitator and moved to become more collaborative and this is detailed in Chapter 5. In Chapter 7 I use the reflection opportunity afforded by writing this thesis to examine the assumptions underpinning my initial position and my changed position, to gain a more critical understanding of my facilitation of experiential learning.

In this chapter I record the formal reflection on my facilitation of experiential learning with pastoralists. It includes the abstract conceptualisations I developed from my reflection which related to my facilitation. As such it represents reflection about how I was and am (in thesis writing) learning about my facilitation and thus may be referred to as meta-learning. The outcome of my reflection derives from the interplay among my field experience, the literature referred to in Chapter 6 and in this chapter.

The abstract conceptualisations developed from the reflection relate to three issues:

1. My perspective on new concept development (higher level learning) and how it impinged on my interpretation of what action should be taken (Section 7.2).
2. ‘Action taking’ by pastoralists and I as an outcome of group learning activities. I explore three explanations for expected action not being taken (Section 7.3):
   * personal foundation of (previous) experience,
* the impact of my practice as a facilitator, and
* the continuing emergence of action outcomes after the formal experiential learning activities concluded.

3. The level of congruency of action theories in my facilitation of experiential learning (Section 7.4). I do this through reference to a specific experience in cycle one of the action research. My reflections on the experience highlight an initial lack of congruency of action theories and I explore how this insight impacted on my later facilitation for collaboration. I then consider my developing understanding of the need for congruency of action theories through my implementation of plans for expanding my facilitation options as the project progressed.

4. I conclude the chapter by relating the concept of transparency in facilitation for collaboration with that of congruency of my action theories as a facilitator. I discuss the proposition that transparency in facilitation relies upon congruency of action theories about transparency in facilitation. I consider how examining the congruency of my action theories of transparency in facilitation provides for effective reflection-in-action (Schon 1987) in future. I argue that holding congruent theories of action about transparency better places me to enable collaboration in learning opportunities that arise during experiential learning.
Section 7.2 Reflecting on my facilitation of the development of new conceptualisations by pastoralists through experiential learning

The focus of this section is that of my facilitation of the development of new concepts related to issues facing pastoralists (that is, higher level learning related to these issues) in the Westland and MTT groups. The development of new concepts provides learning in the sense presented by Argyris and Schon (1996), Bawden (1995;1990), Mezirow (1991; 1981), Argyris et al (1985), Kolb (1984) and Rogers (1969). The sense referred to is that of improvement in problem situations through change in meaning scheme (Mezirow 1991) or the transformation of meaning perspective (Mezirow 1991).

At project initiation I viewed new concept development as an ethical means of providing choices that would lead to changes by pastoralists. I interpreted such change as their taking action to improve their problematic situations. I interpreted ethical practice as enabling participants to derive their own outcomes through their use of the process of experiential learning. I wanted to avoid the imposition of the will of the facilitator as criticised by Brookfield (1993,1987) and Freire (1972).

This was the basis of my invitation to pastoralists in the first (Westland) group to gather around an issue previously identified as relevant by a wider spectrum of pastoralists.

73 The Macquarie Dictionary defines 'concept' as a thought, idea, or notion, often one deriving from a generalising mental operation. It can also mean a theoretical construct, for example the concept of the solar system. Alternatively it can mean a pattern or procedure. In any of the aforementioned cases new concepts can emerge. However it is to the emergence of new patterns or procedures for acting that I am referring to when I write 'new concepts' in this chapter. It is linked to the Kolbian understanding of conceptualisation in the process of experiential learning which is referred to in that model (Kolb 1984) as 'abstract conceptualisations'. This was discussed in Chapter 4.

74 The issue was identified using convergent interviewing (Dick 1987a) as a lack of control of wool marketing by woolgrowers.
The Westland pastoralists who responded each agreed that the issue was one that concerned them. Following rewording by the group to establish specific relevance, the issue became the focus of experiential learning for the group.\textsuperscript{75}

Section 7.2.1 Identifying and interpreting my initial process for facilitation of new concept development

The intent of my project was to increase the options for action available to pastoralists to improve problematic issues. Reference to the notion of new conceptualisations that lead to action outcomes (change) in my field notebooks (b3p51; b4p7) indicates its centrality in my thinking relative to the ‘success of my project’. In this situation I am referring to the emergence of new conceptisations as a function of the experiential learning process (Kolb 1984) and recognise that new conceptualisations in this sense are possible at all levels of learning (Bawden 1995).

Stage one of my emerging understanding of facilitating the generation of new conceptualisations began in early planning. It involved providing visual as well as verbal messages in the invitation contacts with pastoralists (Cat.#55W; Cat.61). It also involved room layout, process planning and attention to the need for creativity (b4p12/13/31/40/43; Cat.#3W) in our group sessions. I believed these to be useful ways to model ‘being different’ as acceptable in this forum. The idea of ‘being

\textsuperscript{75} The reworded issue chosen by Westland pastoralists was ‘The role that I as a Longreach woolgrower can play in preparing and selling my wool.’
different’ was consistent with my idea of generating new (different) conceptualisations about problematic situations.

Stage two was my recognising that thinking differently about a problematic situation required attention to all stages of experiential learning and not just abstract conceptualisation (b4p34/40).

Stage three was my recognition of the meaning of ‘new’ in the term ‘new ideas or conceptualisations’. An initial concern centred on the development of ideas by Westland pastoralists that were not new to me (e.g. woolgrower co-operatives). Reflection activities with a member of the DPI group involved in the project and with a DPI training facilitator resulted in an appreciation that ‘new’ (when facilitating experiential learning) is describable as ‘new for the person in the situation’ (b4p46/88). This interpretation is evident in the experiential work of Smith and Berg (1995) with group dynamics students and in the adult learning literature (Burns 1995; Mezirow 1991).

From this emerging understanding my facilitation became:

* focussed on providing activities and techniques that generated knowledge commensurate with the phases of the concept of the experiential learning cycle, particularly divergent and assimilative knowledge, and

* inclusive of my understanding of new conceptualisations or ideas in terms of their relevance (or newness) to participants.
Over the duration of the project I believe that my epistemic position from which I interpreted facilitation for generating new conceptualisations progressed, at least in its espoused action theory beyond Perry’s (1970) dualistic cognitive position to the epistemic (Kitchener 1983) position of multiplicity (Perry 1970), and ultimately to a position of commitment in relativism which represents an “... orientation of self in a relative world” (Perry 1970). This is apparent insofar as my interpretation recognises:

* the multiple responsibilities of myself and pastoralists in learning for change in this project,

* that the commitment in relativism recognises the right of the pastoralists to identify what is a “new” idea for their circumstances, and

* that my approach may need to change as new material emerges, and this is allowed for by the flexibility of an action researching methodology (Culver and Hackos 1982; Culver 1987).

In this way my epistemic perspective on facilitation changed to a position supporting the development of new conceptualisations in which the pastoralists are the arbiters of newness. New pictures of the world, generated from the confluence of the phases of divergent and assimilative knowledge in experiential learning can lead to the emergence of new concepts (Bawden 1995, 1990; Macadam 1995). However, my emphasis on generating new conceptualisations through focussing only on divergent and assimilative knowledge, may indicate a lack of attention in my facilitation to acquiring convergent and accommodative knowledge. Macadam (pers comm) refers to this and suggests it can be lacking in the application of the experiential learning model and is manifest as
change or action outcomes not emerging from learning. The subject of the next section of this chapter is action outcomes of the learning of both the pastoralists’ and myself.

**Section 7.3 New conceptualisations generated by pastoralists, and their action outcomes**

Action outcomes in a stylised model of experiential learning (Kolb 1984) involve converging to a course of action, mediated by development of the new conceptualisations, and followed by accommodation. Macadam’s (pers comm) suggestion is that a new concept about a problematic situation develops through the use of facilitation, using techniques that promote divergent and assimilative knowledge. He posits however that action as an outcome of the experiential learning cycle does not always occur insofar as insights into what might or should be done are not translated into action outcomes.

At this stage it is interesting to consider situations in the project where action outcomes occurred or did not occur. Considering these situations may make clearer the role of my facilitation in this aspect of facilitating experiential learning with pastoralists.

Examples exist demonstrating the development and use of both convergent knowledge and accommodative knowledge (that is action outcomes) by pastoralists in the Westland and MTT groups. Collective examples and individual examples are available.
Section 7.3.1 New conceptualisations leading to action outcomes by pastoralists

One Westland pastoralist and his management team decided to sell their property and move to a different district where they would not run sheep. This was the accommodation of a new conceptualisation of the world in which they were not continuing to run sheep. He suggested that this outcome could have had some basis in the activity of the group (b7p19). It was a new conceptualisation for him as he had earlier in the group’s activities indicated his intention to stay in wool growing as his way of fulfilling his role in preparing and selling his wool. In the earlier activity he had presented himself in a sketch of his future, as conducting a more efficient wool growing operation (Cat.#19W). So his accommodation of the new conceptualisation occurred as one of moving out of the wool industry.

In another instance a Westland pastoralist identified a new concept or a new conceptualisation as his recognising aspects of marketing he would not undertake personally (b6p60) whereas he had originally held the view that he could include them in his activities. In an evaluation session, the pastoralist (b7p107) explained the new conceptualisation as “The other realisation that came out of the group was that there is not much that I as a woolgrower on such a small scale, can do to control wool marketing. I should do wool growing well and produce a quality product ..... I can’t go to Italy because of costs, and I don’t speak the language.” A probe question related to ‘action taking’ was “Did you make any significant management changes since the start
of the Westland group?" In response he said he had decreased numbers "... the aim being quality not quantity of wool."

An example of cycle completion on a group basis was the development by the pastoralists of the MTT of a new conceptualisation related to sourcing information to assist their decision-making about their wool-selling method. The concept was to have access to a 'code of options'. It would enable a comparison of wool selling methods and be used as a framework for directing questions to the providers of wool selling facilities (b8p49). The information was brought together and published by group members (Cat.#76) to make it available to other pastoralists.

Section 7.3.2 New conceptualisations not acted on by pastoralists

Examples are also available where pastoralists reported that they had converged on an option for action and planned how the implementation could proceed, but had not gone on to produce an action outcome.

An MTT pastoralist brought to the group the problematic issue of "not enough time for my time management" (b7p68/71). He referred to not having enough time to do well all of the things he believed he needed to get done. Group progression of the issue using a Revans' action learning questioning format followed. My reflection notes of the session record the observation "[Pastoralist’s name] didn’t really say what he plans to do" (b7p66). It is qualified with an interpretation (b7p67) pointing out the new conceptualisation identified by the pastoralist (in this case one of ‘best use’) was to be
activated by his asking "Is this the best use of my time now?" My notes and transcript of the tape of a later discussion with the pastoralist and his wife, as the other member of the property management team, (b10p36; Cat.#01) show that he had yet to use the questioning device.

A second example is available from the same group. It involves a situation already described in Chapter 5 where it was presented as an instance of higher level learning. This situation began as one of deciding whether the industry was sufficiently secure to support his purchasing an aeroplane for contract stock work to secure his future. It concluded with the new conceptualisation of security for his future including the need to examine a family succession issue (b7p84/85). My notes of an evaluation discussion between the pastoralists and myself held 11 months later (b12p7) show that no discussions had taken place with his family on the succession issue.

It appears that the only thing lacking in these instances is the final act of implementing the action. Holt and Schoorl (1989) provide a model of 'putting ideas into practice' based on an examination of systems paradigms. Their aim is to interpret action for change in agriculture. The five steps they identified are - getting the idea, judging whether to go ahead, planning for action, designing a scheme for incorporating the action into current practices and finally implementing the action. Their model refers to the conceptualisation of a 'new' idea and the development of convergent knowledge and accommodative knowledge in Kolb's (1984) terms. The instances I have reported show only stages one to four of the Holt and Schoorl (1989) model as completed.
Two group instances of new conceptualisations without action outcomes arose with the Westland pastoralists. One issue related to synthetic wool packs and the loose fibres retained in them after manufacture that subsequently contaminate wool put into the packs at shearing. The new conceptualisation was that manufacturers may be able to build into their production activities a process to remove loose fibres thus overcoming contamination problems occurring when shed staff did not turn the packs at shearing (b5p55). That the group recognised it as significant is shown by notes of the session when it arose, and by references in evaluation sessions where it was described as having the potential for combined group action (b7p19/29). However, no action of any kind eventuated.

In the second instance, a networking booklet was proposed. The new conceptualisation was one of having practising pastoralists, rather than experts, provide information to other pastoralists. It was well supported during the session in which it was developed (b5p56). It was recorded on the newsprint paper76 as one of the highlights of our time together (Cat.#50). Again no action was planned or taken. In these examples, the cycle did not progress through to action. It supports the contention of Macadam (pers comm) that progress through to action is a common shortcoming in experiential learning situations. Kolb (1984), in discussing learning styles, suggests that it is the combination of all four elementary learning forms that produces the highest level of learning.

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76 This recording had been done by group members.
In the reflection afforded by thesis writing I have become aware of a meaning scheme I am using in my understanding of experiential learning. My attention was drawn to the meaning scheme through my awareness that in this section I am referring to the outcome of experiential learning as an action supposedly “observable” by another person. Earlier I discussed my initial and current perceptions of experiential learning referring to my current perception as one of recognition of Kolbian experiential learning as a process rather than steps to action. This is consistent with an interpretation of Kolb (1984) wherein the outcome can be conceived of as an internal “change of mind” (Bawden pers comm) derived from the “one cycle” process beginning with concrete experience (but not progressing to a second concrete experience for that is in a different cycle). The continuation of the process to include additional cycles and thus action, is more recognisable as Lewin’s action research because I have moved through additional cycles. I believe however, that a change now would be inconsistent with the application of experiential learning and with the concept of reflection as a part of thesis preparation.

With this recognition that the focus on action is a more applied or stylised version of experiential learning, the examples used show that action outcomes did not eventuate in all instances following the development of new conceptualisations. In relation to my facilitation however, I believe that an exploration of the reasons for this may further my understanding of my facilitation of experiential learning itself and my use of this and other processes to develop skills for change in others.

77 See Section 5.5.
Section 7.3.3 Exploring the meaning of action outcomes not occurring

There are a number of possible explanations for a lack of action outcomes when seeking change. Boud and Walker (1990 p63) suggest that the roots of disincentives to action arise from an individual’s ‘personal foundation of experience’. They are referring to the accumulated previous experiences of the person concerned. They suggest that previous experiences may explain why individuals at times do not take expected action.

The notion of a foundation of previous experience is related to Checkland and Casar’s (1986) model of Vickers’ appreciative system. This model maintains it is the ‘appreciation’ that an individual makes of the flux of events and ideas (previous experience) that underpins future action. The action in turn becomes part of the flux that makes up the life of the individual.

The influence of previous experience on learning is recognised by Taylor (1994) in his work interpreting intercultural competency in terms of transformative learning processes. He refers to it as ‘stage setting’ and maintains that his qualitative research showed “... each person comes to intercultural experience with former critical events in his or her life, personal goals, varying amounts of intercultural training, and previous intercultural experience that influence the learning process” (Taylor 1994 p160).

Again in the context of interpreting action in relation to the particular situation, it seems that previous experience helps explain taking action or not. Finger (1994 p141) found that the best predictor of this was “... (previous) experiences in and with the
environment”. It is his proposal that any conceptual model used to understand how changed behaviour (action) arises in relation to the environment, should include a field he has called ‘life-experiences’.

There is evidence of the influence of previous experience explaining why action is not taken in the applied literature of change. Gotsch (1996 p48) cites an example where previous experience limited fund raisers in their achievements as change agents for their institutions “It is only when ... (we) ... get outside the box of our past, of what we know, of our experiential noise, that each of us is truly open to new possibilities; that clearing of liberation and transformation of self when we ... can together invent the future.”

An action research project where a similar phenomenon was recognised was where Hastie (1997) identified ‘previous history with the subject’ as a critical factor in the change process when action researching the creation of a new ecology in an educational setting.

Hastie (1997), Taylor (1994), Finger (1994) and Checkland and Casar (1986), like Boud and Walker (1990), have identified the role previous experience plays in an individual's decision to act. It is worth noting that these authors have arrived at the same explanation of action and non-action, from different starting points - systemic thinking, intercultural experiences and environmental education.
A simplistic interpretation of the material on the effect of previous experience is that change in behaviour will not occur without previous experiences that support the change. Counter evidence, however, does not preclude the taking of any new, previously unexperienced, action\textsuperscript{78} by individuals. This is apparent in the work of Argyris and Schon (1996) and Dick and Dalmau (1992) in the field of behaviour change and Packham et al (1989) in the field of agricultural education. These changes are all in facilitated learning situations. The work of Perry (1970) and Klaczynski (1994) suggests the same happens in unfacilitated situations where the initiating factor is psychological need. Similarly Smith and Berg (1995) report that the psychological need to accommodate new conceptualisations produced changed behaviour in groups.

So while some change appears to occur without explicit links to previous experience, there is clear evidence that some explanation of change can be linked to previous experience.

\textbf{Section 7.3.4 Project examples of how previous experience can be interpreted as having influenced a no action in this work}

An example of action outcomes not arising in response to experiential learning events because of a personal foundation of experience, can be interpreted from the behaviour of a pastoralist in the Westland group. This pastoralist missed few sessions and was always supportive of what was happening in the group. In a final evaluation interview

\textsuperscript{78} Where change or action/ non-action is interpreted as learning.
between the pastoralist and I (b8p13) he raised issues that support the idea that his personal foundation of experience had manifested itself in his not taking action.

In response to an initial introduction seeking the meaning for him of the time spent in the group, he raised the following issues:

* we had covered a lot of ground about selling wool and he had "tried most of them [before]";

* he had, "found out years ago that [wool] futures [trading] provided a budget tool".

In his response to the question "How would you describe the level of action taken by the group?" he said that there was "not a lot of action by the group [as a group project]. [We] Talked a lot and thought a lot." And he thought that was "... acceptable because change takes time. 10 years is usual and we worked together for only 12 months."

Initially he said that he had "learnt a lot" in response to the question, 'If you had to relate something that you have learnt while you have been in the group, what would that be?' When asked for examples he said, "Nothing actually... [I] have thought of or tried all of those things in [my]own backyard." And later when asked about any changes to his management activities as a result of group involvement he said, "Don't think it helped me with anything in that line."

Later in the discussion, when asked whether the initial sessions introducing the concept of experiential learning for generating new ideas had been useful to him he replied that
the particular sessions had not. He drew the analogy that the reason they had not was that he "... had too much to wash off...". He said however, "You are on the right track - wash[ing] brains and start[ing] again."

As the oldest pastoralist present, a man of over 65 years, he said he had "at no point" lost interest. This is consistent with his being recorded as contributing his experience to the group. He said that he would be happy to be in future group activities although he didn’t know if his thinking was "too set". Unprompted, he said he might change but that "... to get a change in thinking may need younger people."

A reasonable inference from the data is that his personal foundation of experience in previously trying wool selling methods and experiencing change as taking longer than 12 months had the effect of maintaining the status quo for him in relation to his current management.

Another example interpretable as no action outcome because of a personal foundation of experience, arose in the MTT group. It occurred in cycle three of the action research. This issue is reported in Chapter 5 where I used it in developing the argument for attending to relationships in group experiential learning situations.

In this case a pastoralist raised the current local issue (CLI) of his perceived need to develop relaxation habits that fitted with his family, business and self needs (b8p33). In the session related to this, the pastoralist developed a plan to progress his issue. He left the session supposedly ready to add to his accommodative knowledge regarding
relaxation to suit his situation. The plan involved his return to his farming situation to work with his new conceptualisation that relaxation did not require long periods of time doing something conventionally considered as relaxation (e.g. sporting activities) but could be practised using structured relaxation of short duration (e.g. meditation). In doing so he was transforming via extension, his new conceptualisation of relaxation as something he could practise for a short time each day. He did this through the active experimentation of seeking and using relaxation techniques that matched with his idea of short times.

In the following session he reported that he had taken no action (b8p51). The reasons he gave for this were that:

* he currently does things that he believes provides means for him to relax,

* when he thought about it, relaxation is not a problem for him, and

* he has other tasks to work on that take his attention.

One possible interpretation of these reasons is that of his having a personal foundation of experience in relaxation practice that, in this case, resulted in not taking his planned action.

It appears that, in the two situations referred to above, the influence of the learner’s personal foundation of experience (Boud and Walker 1990) could provide at least part of the explanation for the lack of an action outcome. That it provides only part of the explanation in the second example is possible given material reported in Chapter 5 that supports the argument that relationships between that pastoralist and the group also influenced his decision to bring apparently less important issues such as relaxation to
the group. Thus a cluster of influences can be seen to mediate action outcomes. The existence of clusters of influences is consistent with the significance attached to complexity of issues confronting people by Kitchener and King (1981) and Kitchener (1983). It is also consistent with the concept of collaboration in action research where an example is the clusters of influencing factors acted on to improve the access of low-income women to physical activity services (Frisby, Crawford and Dorer 1997).

A possible additional factor contributing to an explanation of why in some situations some pastoralists did not take action is that my facilitation did not provide for action. Currently applied Kolbian (1984) experiential learning is expected to involve action in the accommodation phase. I consider the influence of my facilitation in relation to action in the next section of this chapter and Smith and Berg (1995) refer particularly to the contribution of facilitation to outcome in experiential learning.

**Section 7.3.5 Examining the influence of my facilitation on ‘action taking’ by pastoralists**

In considering the influence of facilitation on action taking it is interesting to compare recorded changes by members of the two groups in relation to the wool issue. The changes show some cases in which action was taken.

At Westland (8 property management teams were represented):

* one management team sold out and moved to another district to run cattle and do more of the other things that each wanted to do (b7p18);
* one team put a special selection of its wool up for sale under a “promotional”
  brand to draw buyers' attention to their wool (b7p28/29);
* one team decided to decrease stock numbers to improve wool quality, but stay
  out of wool processing (a previous interest of the pastoralist) in recognition of
  the fact that his business was too small financially for involvement in processing
  (b7p107);
* another acted to sell their wool by putting it up for tender (Cat.#72W);
* another recognised a need for a cash business to complement his wool selling
  and he put on a farm manager and bought a business in the local town.

At the MTT (7 property management teams were represented):
* the group prepared material about selling methods available to them and the
  strengths and weaknesses of those methods for their own later use in decision
  making about wool selling (Cat.#76).

The MTT also worked with CLIs after my attention to shifting decision-making power
relative to the direction the group would take (recorded in Chapter 5). At that time I
changed to a role of supporting the group to do their own experiential learning
following a reassessment of my facilitation practice\(^\text{79}\). For the CLIs that were the focus
of learning in the MTT there were some actions taken by group members as a result of
our use of action learning as our technique of experiential learning\(^\text{80}\). For example:
* one management team representative confirmed his need to act to change his
  sheep breeding program (b7p54);

\(^{79}\) See Section 5.4.
\(^{80}\) See Section 5.5.
* another management team began using the experiential learning cycle in making property decisions and this was reported by a team member who was not a group member (Cat.#03);

* another developed a plan to expand their exploration of the possible purchase of a neighbouring property, and from his generalisations in action learning, his team decided not to purchase (b8p33);

* one pastoralist developed a plan and took action to take control of a field day being run on his property by a Government Department (b7p99);

* as a group the MTT planned and ran a night meeting to demonstrate to their other management team members how they went about action learning.

These instances demonstrate that actions were taken by group members, in contrast to the occasions referred to in the earlier part of Section 7.3.2 where there were instances of no action.

Observations supporting an interpretation that my facilitation limited opportunities for action with each of the two groups is available. In final reflection discussions, pastoralists at Westland reported on two issues that had offered the opportunity for combined group action (b7, b8). The first dealt with wool packs and the second with a pastoralist networking booklet. Four of the eight Westland pastoralists reported that these two issues were worthy of group action and that I could have precipitated action on these opportunities (b7p18/27/107;b8p4). In the words of one of the four “When it [action as a group] didn’t happen I thought that was what the group was supposed to do - [that is] not do those things.” It appears my facilitation in the view of these

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81 See Section 7.3.2.
pastoralists, did not provide for action. On that basis examining my assumptions about action in the project can contribute to an understanding of my process of facilitation. Checkland (1991) has suggested a similar activity for soft systems inquiry.

My assumptions about action-taking are apparent in records of field observations (b5p8) when I identified and recorded my assumptions in response to a group member raising the issue of no group action in cycle one of the action research. I recorded them as "Assumptions about the theory which underpins the way [for me] to operate to address the issue of 'no action together as a group'

* the action learning is about [my] asking questions of the group and not developing answers for them,

* the principle of participation is important in drawing out the outcome which best suits our group,

* that posing questions allows the development of dialectics that, through discussion, will lead to an increased understanding of the issue and its problems by members,

* that the people in the situation can learn their own way out of it."

These appear to conform to a position of waiting for the group to enable action taking and of believing that individuals should learn or act for themselves. This is consistent with the recorded aim of the project (see Chapter 1) “to have participants move towards self-action to improve the wool situation for themselves”.

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There are instances of my not moving to take action even when group members suggested it. At Westland, for example, pastoralists suggested involving an outsider (b7p18/48). This issue was also raised at MTT but it was not progressed through facilitation within either group, that is, not offered back to the group to plan for action. In this respect my facilitation role was consistent with my underlying theory-in-use of having the people in the situation resolve their issues for themselves - an epistemic assumption that influenced my facilitation behaviour. In a final discussion a Westland pastoralist said, “It became clear that your process was more important to you than the group doing something [together]” (b7p108). This expression supports the interpretation that my facilitation restricted the extent of ‘action taking’ by the group as a group.

My facilitation (waiting for group action to be initiated by group members) is interpretable as my facilitating in the belief, founded in my personal experience (Boud and Walker 1990), that individuals are responsible for their own actions. My foundation is evident in my summation of my assumptions about ‘action taking’ referred to earlier where I suggested that I appeared to conform to a position of waiting for the group members to initiate action and that individual action was preferred. In fact I was responding from the same position (my foundation of personal experience) as I have suggested pastoralists themselves responded when not taking action.

At the same time as my personal foundation of experience was restricting my acceptance of proposed action to that taken by individuals, my records reveal an anxiousness on my part to have the group members act (b5p81). This anxiety
precipitated the situation I referred to in Section 5.4 as a ‘power shift’ away from my ‘directing’ pastoralists toward particular outcomes. Field records show my intention was to have individuals “plan” (while in the group settings) for individual ‘action taking’ and this is borne out in the original expression around which I invited pastoralists to gather, and which then formed the focus of our activities at Westland. The expression included the use of the personal pronoun “I” and its connotations of individuality. It was “The role that I [the pastoralist] as a Longreach woolgrower can play in the preparing and selling of my wool” (see Table 3.3 Chapter 3).

From an examination now of:

* my assumptions about my facilitation role in ‘action taking’ by group members;

and

* the original invitation expression that I used;

it seems that the unconscious intention in my facilitation was to have participants initiate all action and to take their action as individuals. This led to my not recognising or ignoring directions for which pastoralists in each group had energy to act as a group. Facilitation founded on such an approach is counter to the adult learning concept of recognising that learners know what they want to learn (Mezirow 1981, Knowles 1984) a concept which I would have claimed to be applying.

Thus it seems that my facilitation contributed to pastoralists not acting in some cases during the project activity. It does appear however, that pastoralists continued ‘taking action’ after the formal completion of the action research process.
Section 7.3.6 'Taking action' after the formal completion of action research

An additional interpretation of ‘taking action’ by pastoralists has arisen from my reflection on the outcomes of experiential learning with the pastoralists of the Westland group in cycle one. The interpretation is that although our formal activities as a group reached an end point, pastoralists continued to learn about the issues with which we had been dealing. Prior to the end of cycle one, two pastoralists had taken action in relation to our issue and in the following six months, the other pastoralists took observable actions that could be linked to previously expressed altered perspectives. One pastoralist for example, had expressed recognition of an additional cash business as a changed concept in relation to the group’s focus of “The role that I as a woolgrower can play in the preparing and selling of my wool” (Cat# 72W). He and his management team acted on this after our group concluded its activities by employing a manager to run their sheep property and purchasing and running a cash business. The idea of action continuing to occur for participants after the end of formal action research activities is reported by Frisby et al (1997) in community programs relating to access to physical activity services.

It seems that even though the formal group activities of experiential learning had ceased the process of moving through the experiential learning cycle was continuing for individuals. It is not valid to suggest that the group experiential learning activities were solely responsible for the development of the new concepts for action, but involvement appears to contribute to ‘action taking’. It could be construed that pastoralists had
learnt how to experientially learn and were continuing to apply the process for themselves, as was the original intention of the project.

In response to the issue of the influence of my facilitation in situations where action was not taken - reflective observation reveals that at times action was taken by pastoralists, but was not obvious. Reflection also shows that 'action taking' was a complex phenomenon affected by:

* the personal foundations of experience of the pastoralists,
* the quality and nature of relationships between participants
* my facilitation, and
* when an assessment was made as to whether or not action was taken.

In Section 7.4 I continue the theme of this chapter related to my facilitation by examining the congruency of my action theories of facilitation.

Section 7.4 Considering the effect of congruency of my action theories on my facilitation of experiential learning

Both Argyris and Schon (1996) and Dick and Dalmau (1992) have argued that congruency of action theories of interventions\(^{82}\) play a crucial role in relation to behavioural change in complex situations. In Section 7.4 I consider my level of congruency of action theories of facilitation relative to collaboration and participation in this project.

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\(^{82}\) An example of such an intervention is the facilitation of experiential learning with pastoralists in this project.
In Chapter 6 I explored the literature related to congruency of action theories (Argyris and Schon 1996; Dick and Dalmau (1992;1991); Argyris et al 1985) and proposed that behavioural congruency was important in facilitation.

In this section I consider my facilitation behaviour and its impact on the outcomes for pastoralists. In doing so I raise the possibility that my level of behavioural congruency of facilitation impacted adversely on the development of my project goals of collaboration and participation. I suggest however, that the action research methodology allowed me to modify my behaviour and this enabled positive change (learning outcomes) to occur for the pastoralists.

Torbert (1983) suggests it is individual self-study that is required to increase effectiveness. The action science work of Argyris and Schon (1996) and Dick and Dalmau (1992) is used in this section to assess my congruency of action theories of facilitation. Their work provide a means of critically reflecting on my facilitation as suggested by Burrows (1997).

The assessment uses a two-column analysis process (Argyris and Schon 1996). It incorporates the concept of Model I and Model II governing variables (Argyris et al 1985) together with Model I and II action statements (Dick and Dalmau 1992). I referred to these concepts in Chapter 6 when discussing congruency of action theories of facilitation.
The steps I took to determine the congruency of my action theories of facilitation using the two column analysis are those suggested by Dick and Dalmau (1992). They are:

1. I assess how I would like to behave in facilitating experiential learning with pastoralists in terms of Model I and Model II action statements.
2. I describe each of two project experiences whose outcomes I considered unsatisfactory and analyse each in terms of the public (group) and private (facilitator) dialogue and actions during the experience.
3. I then relate the two-column analysis to Dick's and Dalmau's (1992) Model I and II action statements\(^{83}\) to consider the tendency of my words (public dialogue), thoughts (private dialogue) or actions (public or private) to favour one or other of the models.
4. I describe action I took in response to my reflections on the experience.

The material generated in the instrument at step three above shows whether it is Model I or II that is favoured by the words and actions. Plans are made to progress to the desired model, whenever incongruencies appear.

Two 'experiences' were selected for analysis. I describe the analysis in detail rather than in a summary form as I believe the depth of analysis provided the leverage for making the behaviour changes that the analysis identified as relevant in my practice. The first (Experience 1) is the issue discussed in Section 5.4 where I sought to use my

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\(^{83}\) This instrument is intended for pedagogical (instructional) rather than measurement purposes (Dick pers comm) and it is the former context this is how I have used it.
position of ‘power’ to direct pastoralists to my notion of suitable outcomes. The second (Experience 2) is not a single incident and spans a period of time and a number of what, at the time, were distinct incidents. They relate to my communicating clearly to participants what we were doing and why (transparency) and the influence of clarity of process on collaboration between the pastoralists and myself.

**Section 7.4.1 Step 1 - Assessing my claimed (espoused) action theories of facilitation of experiential learning activities with pastoralists**

Table 7.1 shows an adapted form of the material of Dick and Dalmau (1992) illustrating an assessment of my preferred choice of facilitation actions in relation to Model I and Model II\(^{84}\) behaviours.

**Table 7.1** Table showing my preference (the blackened numbers) for Model I or II behaviours

<table>
<thead>
<tr>
<th>Expressions supporting Model I actions</th>
<th>Rating(^{85})</th>
<th>Expressions supporting Model II actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pursue own goals perhaps without making them explicit to others</td>
<td>1 2 3 5</td>
<td>Explicitly and jointly define all goals before proceeding with the activity</td>
</tr>
<tr>
<td>Act unilaterally to control the way things are done</td>
<td>1 2 3 5</td>
<td>Involve the others in defining and managing the way things are done in the activity</td>
</tr>
<tr>
<td>Others seem to perceive you as defensive</td>
<td>1 2 3 4</td>
<td>Others seem to perceive you as not defensive</td>
</tr>
<tr>
<td>Try to win using a win/lose strategy when necessary</td>
<td>1 2 3 4</td>
<td>Try to achieve outcomes for both self and others</td>
</tr>
</tbody>
</table>

\(^{84}\) The governing variables of these model are shown in Chapter 6, Table 6.1.

\(^{85}\) Rating:
1 - in this situation the action taken seems to strongly favour Model I governing variables/values
2 - in this situation the action taken seems to favour Model I governing variables/values
3 - in this situation the action taken favours neither Model I or Model II governing variables/values
4 - in this situation the action taken seems to favour Model II governing variables/values
5 - in this situation the action taken seems to strongly favour Model II governing variables/values.
<table>
<thead>
<tr>
<th>Expressions supporting Model I actions</th>
<th>Rating</th>
<th>Expressions supporting Model II actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilaterally define and manage the task</td>
<td>1 2 3 4</td>
<td>Explicitly and jointly define and manage the task</td>
</tr>
<tr>
<td>Resulting relationships seem to be defensive</td>
<td>1 2 3 4</td>
<td>Resulting relationships seem not to be defensive</td>
</tr>
<tr>
<td>Maintain my values whatever happens</td>
<td>1 2 3 4</td>
<td>Open to revising my values in the light of developments</td>
</tr>
<tr>
<td>Act to minimise negative feelings for self and others</td>
<td>1 2 3 4</td>
<td>Express negative feelings openly and clearly</td>
</tr>
<tr>
<td>Unilaterally engaged in actions to protect self</td>
<td>1 2 3 4</td>
<td>Express vulnerability and invited others to assist</td>
</tr>
<tr>
<td>Conceal assumptions of others’ motives</td>
<td>1 2 3</td>
<td>Reveal assumptions before acting on them</td>
</tr>
<tr>
<td>Act unilaterally to protect others from hurtful situations</td>
<td>1 2 3</td>
<td>Reveal perceived hurt to others before acting</td>
</tr>
<tr>
<td>Present information selectively</td>
<td>1 2 3 4</td>
<td>Provide all relevant information</td>
</tr>
<tr>
<td>Act to limit the choices open to the others</td>
<td>1 2 3</td>
<td>Create environments that maximise personal freedom</td>
</tr>
<tr>
<td>Treat the process as given once it is begun</td>
<td>1 2 3 4</td>
<td>Encourage others to express dissatisfaction with the process</td>
</tr>
<tr>
<td>React defensively if others voice their assumptions</td>
<td>1 2 3</td>
<td>Encourage others to voice their assumptions</td>
</tr>
<tr>
<td>Partial censorship of some beliefs or feelings</td>
<td>1 2 3 4</td>
<td>Open expression of almost all beliefs and feelings</td>
</tr>
</tbody>
</table>

My shading of preferred modes of behaviour within Figure 7.1 shows my preference to act in the facilitation role with pastoralists in ways that correspond to Model II. This is consistent with the original aims of the project presented in Chapter 1.

**Section 7.4.2 Step 2 - Description\(^{86}\) of selected project experiences**

The first experience (Experience 1) to be analysed was a session of the Westland group where I set out to help the pastoralists identify what they could do to achieve our focus

\(^{86}\) The description follows the headings as set out by Dick and Dalmau (1992).
of identifying ‘the role that I as a woolgrower can play in preparing and selling my wool’. Four of the eight members were present. The setting was a cottage used for School of the Air by four local pastoralist families, two of whom were represented in our group.

Material, written on newsprint, that related to the work of the group was fastened to the walls. For example:

1. Our group focus - ‘the role that I as a woolgrower can play in the preparing and selling my wool’.

2. Quotations, e.g. ‘If you always do what you have always done you will always get what you have always got’

3. Any sheets being worked on (e.g. graphic sketches of visions of the future).

I undertook actions intended to:

* facilitate the preparation of a rich picture/mindmap by the pastoralists of their interpretation of the material they had collected about the focus issue
* contribute examples of how material should be written
* provide guidelines on the mindmapping technique.

My intentions for the pastoralists were that they would:

* identify the issues to be recorded
* write their own material on the mindmap
* clarify points they were raising if others asked
General description notes:

* it was a night session and at times the pastoralists appeared tired
* at other times they appeared energetic and enthusiastic.

My intention was to have the pastoralists identify the actions that they could take individually to fulfil ‘the role that I as a woolgrower can play in the preparing and selling of my wool’.

The two-column analysis in Table 7.2 records the public dialogue among group members during Experience 1, and my corresponding internal dialogue.

**Table 7.2** The 2 column analysis (Argyris and Schon 1996) prepared for Experience 1

<table>
<thead>
<tr>
<th>Internal dialogue (of facilitator)</th>
<th>Public dialogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>* People lack focus on what they can do for themselves - e.g. for selling they have just listed the range of options, but not made personal choices.</td>
<td>* I said - ‘Let’s put on our map the options for actions you can take’. I added things like, ‘as I said in the news sheet [sent to you before this session] the mind map allows us to see it all together and to link items’. I think it is useful and allows us to analyse the material. It’s a good process for doing this. Is that OK for you?’ (b5p77)</td>
</tr>
<tr>
<td>* People are still exploring rather than analysing e.g. recognising that they needed more accurate feedback from wool processors, but not how they would get it.</td>
<td>* Pastoralists - All said or nodded ‘yes’.</td>
</tr>
<tr>
<td>* We need a useful outcome otherwise the work won’t be seen as successful by others.</td>
<td>* Pastoralists and I - spent an hour putting-up their ideas.</td>
</tr>
<tr>
<td></td>
<td>* I said things like - ‘you need to push the lines outward as in doing that you will see actions to take.’</td>
</tr>
<tr>
<td></td>
<td>* I said often - ‘You need to refer back to the central issue as you add more - and also, does what you are adding relate to the central issue?’</td>
</tr>
<tr>
<td></td>
<td>* I have no clear recollection of what the people were saying as I kept drawing their attention to the</td>
</tr>
</tbody>
</table>

87 In the tables of the remainder of this chapter single parenthesis marks (‘...’) indicate notes taken from field observation notebooks. Double parenthesis marks (“...”) indicate direct quotes taken from tape recordings or recorded in field notebooks.
<table>
<thead>
<tr>
<th><strong>Internal dialogue (of facilitator)</strong></th>
<th><strong>Public dialogue</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>* The pastoralists won’t think the sessions have been successful unless we have a practical wool outcome for each of them, or at least the majority.</td>
<td>need to focus on the central issue. They were saying things like “we are having difficulty doing this.” It is my general perception (in hindsight) that they were looking at me questioningly as I kept referring to the need to focus on the central piece. I never sought to find out why they were looking like that.</td>
</tr>
<tr>
<td>* ‘I am having some difficulty understanding how people haven’t picked up on the idea that it is what they can do themselves that is the focus of our mind map (central topic). That’s what we have been on about all the time.’</td>
<td>* There were quite long silences when people were not writing or saying anything.</td>
</tr>
<tr>
<td>* ‘We haven’t got to what the individuals are going to do, e.g. their advertising and promotion link to a professional advertising agency only’.</td>
<td>* When I as facilitator judged these to be long enough I said - “this is an important part of our time together, it’s where we see where it has all led”</td>
</tr>
<tr>
<td>* We should be finished this and moved on but we haven’t got to what they are going to do themselves.</td>
<td></td>
</tr>
<tr>
<td>* I could have them take it away and work on it before the next session and give them more guidelines about what to write.</td>
<td></td>
</tr>
<tr>
<td>* The others aren’t here so it will be OK to extend it to another session.</td>
<td>* Publicly I said - “As the others aren’t here and as we need to move on, should we finish this next time?”</td>
</tr>
<tr>
<td>* If we were to achieve a good result from our time together at Westland, I need to have pastoralists focus on actions that they can take for themselves. I need to understand how to use rich picturing to focus the pastoralists’ attention on that particular point. Do I need to change the central topic of the picture?</td>
<td>* Pastoralists - “Yes”</td>
</tr>
<tr>
<td>* Do we need to refer back to what people saw as a desirable future? (An exercise we had done earlier).</td>
<td>* I added - “I’ll make a copy of this and send it to each person, with guidelines for those not here now”</td>
</tr>
<tr>
<td></td>
<td>* I said again - “What you need to do is push lines outward and refer back to the centre each time you intend to add things”.</td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 1 - “Gerry, you should nominate the lines that each person is to pursue”</td>
</tr>
<tr>
<td></td>
<td><strong>As a part of a reflection activity at the finish of the session the following took place:</strong></td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 1 - “It’s not easy, there have been big gaps. It’s making us think about things we haven’t had to think about before e.g. advertising. There have been long gaps. If it was easy we would have filled it up quicker.”</td>
</tr>
<tr>
<td></td>
<td>* I responded - ‘you need to be focussed on what you can do yourselves.’</td>
</tr>
<tr>
<td>Internal dialogue (of facilitator)</td>
<td>Public dialogue</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>• Pastoralist 2 and pastoralist 1 responded - 'if we are going to do things fully ourselves then we would need to be specialised in those areas ourselves'. And 'if we want to take the maps further we would need to have someone who had experience in the item to tell us if it was worthwhile before we continue'.</td>
</tr>
</tbody>
</table>

**Section 7.4.3 Step 3 - Assessing my facilitation of Experience 1 in terms of Model I and Model II behaviours**

In the days following the session depicted as Experience 1, I prepared a model mindmap to demonstrate how the pastoralists should extend the lines on the mindmap made during the session. It included questions at various points to focus the pastoralists on what they could do individually in relation to the problematic situation. I also prepared material for the Westland news sheet\(^{88}\) to reinforce the message.

I contacted one of my academic supervisors by telephone after faxing him a reproduction of the pastoralists’ map and my model mindmap. In our discussion I argued for (what I now see as) my continued directiveness, based on the need for an ‘acceptable’ outcome. The arguments I raised included:

* the idea that if no action or potential action developed, then the pastoralists would go away saying, ‘it was interesting, but in future I will not be involved’, and

* I pursued the idea that the central issue should be reworded so that the pastoralists maintain direction.

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\(^{88}\)In an earlier session we had agreed that a news sheet between sessions would be useful in preparing for the next session.
In a 90 minute telephone reflection session with the academic supervisor I, as the action researcher, developed an understanding that:

* I was anxious about the outcome and was loading my anxiety on to the pastoralists;
* the central issue could be actually limiting the group members’ thinking;
* it was what the pastoralists were thinking about the central issue that was important;
* my ‘facilitation’ approach had been directive;
* there had been no ‘real discussion’ with the pastoralists about how this phase was to be conducted;
* engaging the pastoralists in my developing understanding of my anxiousness and directiveness would be best done through stating what I was thinking and feeling first, and then asking them to respond;
* there was a need to provide a process for group members to share and develop their thinking about what they had found out about the issue at stake;
* it was appropriate for me to seek alternatives with the group to the dilemmas I was perceiving;
* the dilemma was mine, but I believed it was that of the pastoralists as well, and I had not sought to disconfirm that assumption by raising the issue with them.

It was clear that this was a significant experience in the action research about my facilitation of experiential learning.
Table 7.3 is my interpretation of my actual facilitation behaviour in terms of Model I and II behaviours. The shaded number in each row represents my current perception (during thesis writing) of my position at that time. This assessment arises in the light of the reflection outcomes mentioned above. The assessments using the two-column analysis and the Model I and Model II action statements (Dick and Dalmau 1992) were made during the subsequent writing of this thesis. They reflect a deeper understanding of the impact of my facilitation on the development of experiential learning skills by pastoralists in the agricultural extension setting depicted in Experience 1.

**Table 7.3** Assessment of my facilitation behaviour in Experience I in terms of Model I and II behaviours using Dick's and Dalmau's (1992) behaviour statements

<table>
<thead>
<tr>
<th>Expressions supporting Model I actions</th>
<th>Rating</th>
<th>Expressions supporting Model II actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pursued own goals perhaps without making them explicit to others - e.g. in private dialogue 'We need a useful outcome otherwise the work won't be seen as successful by others.'</td>
<td>2 3 4 5</td>
<td>Explicitly and jointly defined all goals before proceeding with the activity</td>
</tr>
<tr>
<td>Acted unilaterally to control the way things were done - e.g. in public dialogue I first said 'As facilitator I said - 'let's put on our map the options for actions you can take''. I added expressions like, 'as I said in the news sheet, the mind map allows us to see it all together and to link items. I think it is useful and allows us to analyse the material. It's a good process for doing this. And only then said is that OK for you?''</td>
<td>1 3 4 5</td>
<td>Involved the others in defining and managing the way things were done in the activity</td>
</tr>
<tr>
<td>Others seem to perceive you as defensive - e.g. in public dialogue 'Pastoralist 1 - &quot;Gerry, you should nominate the lines that each person is to pursue.'''</td>
<td>1 3 4 5</td>
<td>The others seem to perceive you as not defensive</td>
</tr>
<tr>
<td>Tried to win using a win/lose strategy when necessary - e.g. in internal dialogue 'I could have them take it away and work on it before the next session and give them more guidelines about what to write'.</td>
<td>1 3 4 5</td>
<td>Tried to achieve outcomes for both self and others</td>
</tr>
</tbody>
</table>
Expressions supporting Model I actions

Unilaterally defined and managed the task
- e.g. in public dialogue 'I added - “I'll make a copy of this and send it to each person, with guidelines for those not here now.”'

Resulting relationships seem to be defensive
- e.g. in internal dialogue - “I am having some difficulty understanding how people haven’t picked up on the idea that it is what they can do themselves that is the focus of our mind map [central topic]. That’s what we have been on about all the time”.

Maintained values whatever happened
- e.g. in public dialogue I responded - “you need to be focussed on what you can do yourselves”.

Acted to minimise negative feelings for self and others
- e.g. in public dialogue ‘Publicly I said - “As the others aren’t here and as we need to move on, should we finish this next time?”

Unilaterally engaged in actions to protect self
- e.g. in public dialogue ‘Publicly I said - “As the others aren’t here and as we need to move on, should we finish this next time?”

Concealed assumptions of others’ motives
- e.g. in internal dialogue ‘The group members won’t think the sessions have been successful unless we have a practical wool outcome for each of them, or at least the majority.’

Acted unilaterally to protect others from ‘assumed’ hurtful situations
- e.g. in public dialogue ‘I added - “I’ll make a copy of this and send it to each person, with guidelines for those not here now.”’

Acted to limit the choices open to the others
- e.g. in external dialogue - ‘I responded - you need to be focussed on what you can do yourselves’.

Treated the process as given once it was begun
- e.g. public dialogue - ‘I said again - “what you need to do is push lines outward and refer back to the centre each time you intend to add things”’.

Reacted defensively if others ‘voiced’ their assumptions
- e.g. public dialogue - ‘When I as facilitator judged these (silences) to be long enough I said - “this is an important part of our time together, it’s where we see where it has all lead”’

Rating

1 2 3 4 5

Expressions supporting Model II actions

Explicitly and jointly defined and managed the task

Resulting relationships seem not to be defensive

Was open to revising values in the light of developments

Expressed negative feelings openly and clearly

Expressed vulnerability and invited others to assist

Revealed assumptions before acting on them

Revealed perceived hurt to others before acting

Created environments that maximise personal freedom

Encouraged others to express dissatisfaction with the process

Encouraged others to voice their assumptions
In Table 7.3, where the description of the Experience 1 is interpreted in the light of the behaviour statements of Dick and Dalmau (1992), my facilitation of Experience 1 tends to favour Model I behaviour unlike the claim of a Model II preference evident in Table 7.1.

Section 7.4.4 Action I took in response to reflections on Experience 1

The action I took in response to my reflections following Experience 1 had two major strands. They were to:

* declare my anxiety about an outcome to Westland pastoralists and ask them to respond; and

* stop being directive in my facilitation and suggest a method that the pastoralists could use to have their individual ideas about our focus issue emerge in a way that the group could share.

Table 7.4 is a two-column analysis of the implementation of the two action strategies. The material in the table comes from records of my preparation for the session of the Westland group subsequent to the Experience 1 session, and the session itself.

Table 7.4 The two-column analysis of the my response to reflections on Experience 1

<table>
<thead>
<tr>
<th>Internal dialogue</th>
<th>Public dialogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>* I want to act immediately</td>
<td>* I wrote in news sheet (the Westland News produced after the session in which the experience occurred) the outcome of my reflections. (Cat. #72W)</td>
</tr>
<tr>
<td></td>
<td>* I wrote that they should each extend the mindmap as they chose.</td>
</tr>
<tr>
<td>Internal dialogue</td>
<td>Public dialogue</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>* I had feelings of apprehension in raising these issues with the pastoralists.</td>
<td>* At the next session (5b5p47) as facilitator I acknowledged that:</td>
</tr>
<tr>
<td>* Luckily I have already broached the subject in our newsletter.</td>
<td>* &quot;I have spent time with an academic supervisor reflecting on the experience.&quot;</td>
</tr>
<tr>
<td>* My dilemma has been in thinking that we have 2 sessions to go and that we need a practical result by conventional standards otherwise we and others will be dissatisfied.&quot;</td>
<td>* &quot;I now understood that I was being directive and that was why you were saying it was difficult to work on the mindmap&quot;.</td>
</tr>
<tr>
<td>* I can influence things just because of the 'power' of my position as organiser. Such influence doesn't allow for natural creativity. In being directive I have moved away from the aim which was to participate collaboratively to find new solutions.&quot;</td>
<td>* &quot;My dilemma has been in thinking that we have 2 sessions to go and that we need a practical result by conventional standards otherwise we and others will be dissatisfied.&quot;</td>
</tr>
<tr>
<td>* I gave examples of where people had challenged the idea of doing it all themselves (Pastoralist 2 and Pastoralist 1 in Table 6.2).</td>
<td>* &quot;I can influence things just because of the 'power' of my position as organiser. Such influence doesn't allow for natural creativity. In being directive I have moved away from the aim which was to participate collaboratively to find new solutions.&quot;</td>
</tr>
<tr>
<td>* It has been less difficult than I thought to raise these issues with the pastoralists - they have listened and from their responses seem to understand.</td>
<td>* Pastoralist 3 - &quot;Not getting a concrete result is not a problem as the experience itself has been important.&quot;</td>
</tr>
<tr>
<td>* I want to get to the practice and understanding of real participation in this action research work for myself and the pastoralists involved.</td>
<td>* Pastoralist 4 - &quot;We have got ideas for ourselves about our role.&quot;</td>
</tr>
<tr>
<td>* I know I want to talk less and promote talking by the others.</td>
<td>* Pastoralist 5 - &quot;We were never likely to get a group result, not getting a result for individuals is disappointing.&quot;</td>
</tr>
<tr>
<td></td>
<td>* I said - &quot;I have learnt from this occurrence how to work with groups without restricting them by my thinking.&quot;</td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 2 - &quot;I did get things out of our group activities&quot;</td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 1 - 'Yes, and more was done before and after sessions.'</td>
</tr>
<tr>
<td></td>
<td>* I suggested a process to consider what we had come up with - an interview process - and from that the pastoralists went on to record their outcomes from our time together.</td>
</tr>
<tr>
<td></td>
<td>The pastoralists were enthusiastic as they worked using the process.</td>
</tr>
<tr>
<td></td>
<td>Reflection notes of that session record that it was one of the most creative we'd had together.</td>
</tr>
</tbody>
</table>
Table 7.4 demonstrates how I sought to shift my facilitation towards Model II facilitation behaviours. Such behaviours are consistent with those I aspire to, as depicted in Table 7.1.

The increase in congruency of facilitation action theories in the above situation brought about changes for the pastoralists involved. They demonstrated a notable increase in creativity and enthusiasm in response to the wool issue (b6p55; cat#50). The material they generated provided a basis for the action by the Westland pastoralists recorded in Section 7.5.

Changes in my facilitation behaviour produced increased congruency between my espoused and in-use theories of facilitation. I offered pastoralists a process to enable their ideas to emerge and I believe this was significant in providing a focus for future action. The fact that pastoralists became more creative and enthusiastic, thus identifying areas for action, supports my earlier interpretation that the outcome of experiential learning continued to emerge after the formal activities of cycle one. Their own ideas were more acceptable as action foci but the action came after the formal finish because of the timing of my change in facilitation behaviour. It appears that the increased congruency of my action theories of facilitation in the Westland group sessions contributed to completion of the experiential learning cycle for some individuals.

The insights arising from Experience 1 led to more congruent facilitation in the third cycle of the action research with the MTT pastoralist group (b6p26). I was more
transparent about my process proposals and this opened the way to improved collaboration with pastoralists. Changes in my facilitation enabled the emergence of the focus on using experiential learning to improve CLIs (current local issues) described in Chapter 5, as well as group action on a code of options for wool selling (cat#76).

Experience 2 follows. It demonstrates how increased congruency of action theories enabled pastoralists and myself to collaborate in an increasingly authentic way.

**Section 7.4.5 Experience 2 and its impact on my transparency in facilitation for collaboration**

Experience 2 is not a single incident. It spans an extended period of time and two discrete events.

The first event occurred with the Westland group in cycle one of the action researching and the second was with MTT group in cycle two. At Westland all 8 pastoralists were present at the time and with the MTT all 7 pastoralists were present.

Table 7.5 uses the two-column analysis of Argyris and Schon (1996) to consider the events that make up Experience 2.
Table 7.5 The descriptions of the situations of Experience 2 using Argyris and Schon’s (1996) two-column analysis

<table>
<thead>
<tr>
<th>Internal dialogue</th>
<th>Public dialogue and actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Event 1 of Experience 2 - Feb 1993 and again Nov 1993</strong></td>
<td></td>
</tr>
<tr>
<td>Event 1 refers to a situation in which I inquired of participants about my process introducing experiential learning. I stopped the inquiry when they said the process I was referring to had been ‘boring’ and I made my own assumptions about their meaning. It later emerged that my assumptions were not well founded, so I returned to the issue seeking their meaning.</td>
<td></td>
</tr>
</tbody>
</table>

**Feb 1993**

- ‘Boring’ means the sessions are not interesting and too long.
- “My impression is that they [introduction sessions] need to be reduced, I need to say where they are taking us.”
- I asked the pastoralists of the Westland group ‘What did you think of the 4 starter sessions?’(b5p22)
- Pastoralist 6 - “As Pastoralist 1 said, it wasn’t until [after] 3 or 4 meetings .... that she [understood enough of what we were doing and] could actually tell people what we were doing.”
- Pastoralist 1 - “They were boring.”
- Pastoralist 7 - “We were working towards something that we didn’t know we were working towards.”
- Pastoralist 8 - “(They) gave us a chance to get to know each other.”
- Pastoralist 6- “We need to have the discussion about the history about each other - this was important - get to know each other - must have this concept in some form.”
- I did not seek more information to explain ‘boring’.
- Pastoralist 1 - ‘It’s like you [Gerry] have a map but it is in your pocket [and we can’t see it].’
- In a later session I asked - ‘Do you have any thoughts on what Pastoralist 1 said about my having a map (of where we are going) but it is in my pocket?’ (b6p11)
- Pastoralist 7 - ‘Group is to learn different ways of thinking, you have goals and we don’t know what they are. You think we can go further.’
- Pastoralist 1 - “We waste time finding our way in the end for the same result.”
- I asked “What suggestions would you make about it?”

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89 These dealt with experientially learning about experiential learning in a way that I believed suited pastoralists.
<table>
<thead>
<tr>
<th>Internal dialogue</th>
<th>Public dialogue and actions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>* Pastoralist 1 - &quot;[We] Need to keep on track. If [you] see we're getting confused ... better to pull it back onto line earlier. Confusion is tiring.&quot;</td>
</tr>
<tr>
<td>Nov 1993</td>
<td>* I sought information on 'boring'. I asked which [activities] were boring? (b5p84)</td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 1 - &quot;[I got bored] when asked a question from you and group didn't know how to respond.&quot;</td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 1 - &quot;It has been useful lately when you have said things again in another way. You would give us an exercise - then add explanation. By the end of the explanation I become confused about what we are supposed to do. I have an answer first up, but then lose it. It is not in our skills to respond to verbal only information.&quot;</td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 7 - &quot;I agree with Pastoralist 1, people, when [they] don't know how to respond do feel bored.&quot;</td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 6 - &quot;Interest varies - people vary in what they like - look for variety of material, do 2 or 3 exercises so people will find ones they like.&quot;</td>
</tr>
</tbody>
</table>

Event 2 of Experience 2 - in cycle 2 of the action research.

In Event 2 I made interpretations of what was happening in the group but didn't ask participants to comment on their validity.

<table>
<thead>
<tr>
<th>Internal dialogue</th>
<th>Public dialogue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>* Group members' actions showed some body language (such as yawns, listless appearance) indicating low interest. (b5p103)</td>
</tr>
<tr>
<td></td>
<td>* Pastoralist 9 - &quot;We could have got to things [our mission statement] earlier and faster.&quot;</td>
</tr>
<tr>
<td></td>
<td>* MTT pastoralists asked if the survey done in 1992 that showed wool as important, was still relevant now in Nov 1993 (b6p26).</td>
</tr>
</tbody>
</table>
Section 7.4.6 Reflections on Experience 2

The two-column analysis in Table 7.4 was prepared during the writing of this thesis. Reflections immediately after the events however, led to these interpretations:

* I need to say where our activities are taking us (b5p22).

* I sometimes talk too much; I will talk less through prompting others to speak (b5p27).

* I need to have a visual (words and /or diagrams) of what I am asking. I should ask someone to repeat back to me as much as they understand of what I have said (b5p86).

* I need to understand my role in making the decision to undertake an activity or not. As well I need to understand their [pastoralists’] role in the these decisions and identify clearly how I have consulted them about the decisions (b5p86).

Subsequent reflections on Experience 2 with an academic supervisor (b6p18) led me to understand that an increase in my transparency of facilitation was desirable.

More recent reflection on my behaviour while writing this thesis is again based on my modification of Dick and Dalmau’s (1992) Model I and II statements of behaviour. Table 7.6 shows the results of this assessment.
Table 7.6 Assessment of my facilitation behaviour in Experience 2 in terms of Model I and II behaviours using Dick’s and Dalmau’s (1992) behaviour statements

<table>
<thead>
<tr>
<th>Expressions supporting Model I actions</th>
<th>Rating</th>
<th>Expressions supporting Model II actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pursued own goals, perhaps without making them explicit to others - e.g. in private/internal dialogue -</td>
<td>2 3 4 5</td>
<td>Explicitly and jointly defined all goals before proceeding with the activity</td>
</tr>
<tr>
<td>‘I am concerned about Pastoralist 9 thinking that we could have got to conclusions faster, but I know we have to get the group to agree on these ‘conclusions’.’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tried to win using a win/lose strategy when necessary - e.g. in internal dialogue - ‘Could mean when they think that they are doing what I asked of them, but then I say no it wasn’t. (Pastoralist 1) feels that their time has been wasted because I then redirect them.’</td>
<td>1 3 4 5</td>
<td>Tried to achieve outcomes for both self and others</td>
</tr>
<tr>
<td>Unilaterally defined and managed the task, e.g. public dialogue - Pastoralist 1, ‘It’s like you have a map, but it is in your pocket.’</td>
<td>2 3 4 5</td>
<td>Explicitly and jointly defined and managed the task</td>
</tr>
<tr>
<td>Maintained values whatever happened, e.g. internal dialogue - ‘I am concerned about Pastoralist 9 thinking that we could have got to conclusions faster, but I know we have to get the group to agree on these ‘conclusions’.’</td>
<td>2 3 4 5</td>
<td>Was open to revising values in the light of developments</td>
</tr>
<tr>
<td>Concealed assumptions of others’ motives, e.g. in internal dialogue - ‘Group members don’t appear interested in doing things differently.’</td>
<td>1 3 4 5</td>
<td>Revealed assumptions before acting on them</td>
</tr>
<tr>
<td>Presented information selectively, e.g. in external dialogue - MTT pastoralists - ‘Asked if the survey done in 1992 that showed wool as important it still relevant now?’</td>
<td>1 3 4 5</td>
<td>All relevant information is provided</td>
</tr>
<tr>
<td>Treated the process as given once it was begun, e.g. internal dialogue - ‘I am concerned about Pastoralist 9 thinking that we could have got to conclusions faster, but I know we have to get the group to agree on these ‘conclusions’.’</td>
<td>2 3 4 5</td>
<td>Encouraged others to express dissatisfaction with the process</td>
</tr>
</tbody>
</table>
As in the case of Experience 1, it appears that I behaved in ways that can be interpreted as grounded in Model I governing values. Such an interpretation supports my recognition during field work of the need to change. The outcome at the time was to increase my transparency of facilitation and make provision for participant contributions to process. The usefulness of the two-column analysis and its interpretation in highlighting incongruent behaviour highlights its potential as a structured tool for identifying where behaviour change can lead to improved practice. The following interpretation of my changed behaviour validates this potential.

**Section 7.4.7 Action I took in response to my initial reflections about Experience 2**

In response to my reflections about the events of Experience 2 I prepared a plan for the second session with the MTT pastoralists. I wanted to introduce for discussion the idea of making group members aware of the facilitation processes I intended to use in the session and my reason for doing so. I saw the decision to collaborate about what we did and how this could be improved as another avenue for discussion of the facilitation issue (b6p27).

My intention in cycle two of the action research with the MTT pastoralists was to progress what was learnt in the first cycle of the action research with the Westland group. This meant the provision of facilitation that allowed for and encouraged collaboration and participation, and offered experiential learning opportunities. I
intended to switch from the role of a facilitator driving content and process to that of facilitator as collaborator about process and content.

This meant I had to explain why I believed a change was needed. I had also to offer a proposed purpose for the session and suggestions for achieving it, and what I offered had to be open for negotiation and change.

The two column analysis in Table 7.7 presents my implementation of actions planned in response to my reflections described above. My planned actions were implemented in the second session with the pastoralists of the MTT group in cycle two of my core action research.\[90\]

\textbf{Table 7.7} The two-column analysis of my response to the events recorded and reflected on, in Experience 2

<table>
<thead>
<tr>
<th>Internal dialogue</th>
<th>Public dialogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 'The fact that I am going to make the change has made me feel OK about taking this to the Muttaburra group.'</td>
<td>• I began the session by saying 'I think it may be useful to consider some changes to the way we operate for today. I am using consider because it means that it is only if most people agree that a change would be useful, that we will go ahead with it.' (b6p26)</td>
</tr>
<tr>
<td>• 'I am excited by the positive comments.'</td>
<td>• I said 'What is it that has made me suggest changes?'</td>
</tr>
<tr>
<td>• 'I feel enlightened by the group's perception that we are a thinking group.'</td>
<td>1. 'In the Westland group they told me I had not made clear what and why, especially why we were doing things. They talked of it as a 'map in my pocket.'&quot;</td>
</tr>
<tr>
<td>• 'This will take more time and effort but it will be worthwhile.'</td>
<td>2. 'Those pastoralist made it clear that the theory (of experiential learning) is important and useful, but must not be boring.'</td>
</tr>
<tr>
<td>• 'People have welcomed the open approach to process.'</td>
<td>3. 'I know we should mix theory and practical activities in experiential learning.'</td>
</tr>
<tr>
<td>• 'I will prepare an overall approach that promotes openness for the remaining 2 sessions at Westland and all Muttaburra sessions.'</td>
<td></td>
</tr>
</tbody>
</table>

\[90\] I have referred to this in Chapter 1, Section 1.1.
<table>
<thead>
<tr>
<th>Internal dialogue</th>
<th>Public dialogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. 'I have come to understand that I was being directive with the Westland group and that I had begun in a similar way with you. Our wool issue (decided last week) could be restricting us.'</td>
<td>5. 'And finally, the idea of needing to change our way of operating came from your question about the relevance of the wool issue in our last session.'</td>
</tr>
<tr>
<td>- Pastoralist 10 - 'Has this approach to learning been used before.'</td>
<td>- Pastoralist 10 - 'Has this approach to learning been used before.'</td>
</tr>
<tr>
<td>- I said &quot;Yes&quot; and gave examples.</td>
<td>- I said &quot;Yes&quot; and gave examples.</td>
</tr>
<tr>
<td>- MTT pastoralists - 'Agreed to the try the approach'</td>
<td>- MTT pastoralists - 'Agreed to the try the approach'</td>
</tr>
<tr>
<td>- I offered a purpose for our session on that day. With that proposed purpose I made suggestions about a presumed useful way of achieving that purpose.</td>
<td>- I offered a purpose for our session on that day. With that proposed purpose I made suggestions about a presumed useful way of achieving that purpose.</td>
</tr>
<tr>
<td>- As a whole group we discussed these in an energetic way. In the process the group decided that we were a thinking group and called themselves the Muttaburra Think Tank (MTT).</td>
<td>- As a whole group we discussed these in an energetic way. In the process the group decided that we were a thinking group and called themselves the Muttaburra Think Tank (MTT).</td>
</tr>
</tbody>
</table>

The pastoralists as a group decided on a topic to use as the means of introducing experiential learning.

**Following the session in which I altered my behaviour to one of increased collaboration the MTT reflected on the change to comment:** (b6p36)

- Pastoralist 10 - "Through .... improvement in our own ability to think, that we may be able to go home and do something for ourselves. [We are] Learning things for ourselves rather than a problem solving exercise which I first thought it was."

- Pastoralist 11 - "If we tie our hands, the thought process or the learning experience is going to be stifled. Needs will change."

- Pastoralist 13 - "Originally problem solving, but now thinking."

- Pastoralist 10 - "One issue at each meeting, for the exercise of thinking it through."

- Pastoralist 15 - "Pick a topic each week, related to our mission statement."

- Pastoralist 12 - "Once (we have) learnt about the learning cycle we can apply it. Learning different ways to solve problems, learn how to think again."

- Pastoralist 15 - 'Practical aspect will be good.'

- Pastoralist 11 - "([We will be] achieving more out of this whole process, if out of this process I can develop"
<table>
<thead>
<tr>
<th>Internal dialogue</th>
<th>Public dialogue</th>
</tr>
</thead>
</table>
| different ways of approaching problems. [Provide initiative, so doesn’t matter what problem comes up I may be more innovative in solving it. [It] will be more constructive, as far as I am concerned, rather than trying to solve the problems of the wool industry."
| * Pastoralist 10 - “Now as [it] is thinking (instead of just wool) many wives would be keen to be involved.” |
| * I said “I’m not sure where we are going. I wasn’t sure whether this change to the way we were doing things was appropriate. I’m now sure that the change was needed and it is working.” |
| It became my usual practice at the start of each session to offer a purpose and proposed way of achieving that purpose as the way of beginning our sessions. |
| The group later: |
| * As a group we decided to shift from individual topics related to the mission to what they called current local issues (CLIs), e.g. succession planning. This constituted the beginning of cycle 3 of the action research. (b7p45) |
| * As a group we decided to conduct a demonstration of how they operated using the experiential learning for the other members of their families. (b9p1) |
| * As a group pastoralists collected information about options available for wool marketing and decided to publish it for other growers to access [I did the actual publishing and distribution]. (Cat.#76) |

In both Experience 1 and Experience 2, the improved outcomes occurred following my recognition of the role of congruency of action theories of facilitation in achieving collaboration and participation. The outcome of Experience 1 with Westland pastoralists was more creative responses by them of how to deal with the wool issue. With the MTT group the outcome of Experience 2 for pastoralists was the decision to focus on current local issues (CLIs) to acquire skills in thinking (learning).
Section 7.5 Summary

I began Chapter 7 by referring to my goal of facilitating the learning of pastoralists such that they developed new concepts and ideas about their issues. I suggested that I saw this as a means of ethically providing them with options for change. I interpreted this as meaning I should not dictate the actions to be taken.

In keeping with my expectations of the action research methodology in the project it is emergent outcomes that provided for improvement in the goal of the project. The emergent outcomes were:

1. Recognition of the need for my epistemic cognitive position to progress before I could practise my claimed belief that the pastoralists should be the arbiters of newness in conceptualisation of their situations.

2. Awareness of the complexity generated by the interplay of factors operating in situations where action is not taken.

3. That exploring previous personal experience as one contributor to the complex interplay of decisions about “action taking” by pastoralists enabled me to understand that my previous personal experience was contributing to my actions as a facilitator.

4. That participants in the learning situation continued to develop convergent and accommodative knowledge (action outcomes) after the formal end of experiential learning activities.
5. That action science provides me with a critical means of considering what
appear to be difficult situations in my facilitation to develop congruency of
action theories that match the goal I espouse for my facilitation.

The increased congruency of my action theories of collaboration was a significant
learning outcome relative to my aim of facilitating pastoralists to develop experiential
learning skills and my more general aim of improving as a facilitator of experiential
learning through a methodology of action research.
Chapter 8  Conclusion

In this chapter of my thesis I explore three summary aspects of my thesis. The first is the avenues that may provide some cautious expansion of the emergent outcomes of my action research such that they may be of interest and value to others in extension. The second is the directions that my project offers for my future collaborative action researching. I pursue both of these relative to the major emergent outcomes referred to in the thesis and present these in Section 8.1 as the starting point for the chapter. The third aspect discussed reflects my recognition of the reflective nature of my thesis and an acknowledgment of my need to balance reflection with an increased emphasis on action in my practice of extension in the future.

Section 8.1 My action researching from an emergent perspective

In Table 8.1 I show an abbreviated form of the major emergent outcomes from my action researching following the scheme presented by Perry and Zuber-Skerritt (1992) for action research in graduate management programs.
Table 8.1 The emergent outcomes of my action researching referred to in my thesis

<table>
<thead>
<tr>
<th>Action research</th>
<th>Emergent outcome</th>
</tr>
</thead>
</table>
| Cycle 1         | 1. The lack of transparency of my processes to other participants and its lessening their understanding of the focus of our sessions [as acquiring experiential learning skills for use in management].  
2. My unawareness of directing pastoralists towards outcomes that I deemed suitable rather than true participation and collaboration that allowed them to make their own decisions.  
3. My initially incorrect interpretation of other participants' expression of my introductory process being 'boring' leading to a truncated introductory process for cycle 2. From this emerged the outcome of recognition that I had sought only confirming and not disconfirming information about an observation through accepting my initial interpretation. |
| Cycle 2         | 1. The idea that current local issues (CLIs) would be of more interest to pastoralists as a focus for acquiring skills in experiential learning. |
| Cycle 3         | 1. The understanding that relationships influence whether or not valid information is exchanged.  
2. As the facilitator, there are benefits in my modelling experiential learning with groups where experiential learning skills are being used.  
3. The role of matching my espoused theory and my theory-in-use of facilitation for successful practice of facilitation.  
4. Recognising that in collaborative learning that I too am a learner. |

Section 8.2 The underlying rationale for my concluding chapter

Action research is often perceived as being ‘local’ in nature, with the outcome having relevance within the context of the particular situation this means that outcomes are not usually extended other than where conceptual generalisations are appropriate. I recognise the limitation that this places on the generalisability of the outcomes that emerge (Lomax 1986). Hodgkinson (1957) and Porras and Robertson (1987) refer to this in mounting challenges to action research as an appropriate methodology. In their opinion action research delivers only practical outcomes. I would suggest however, that ‘local relevance’ is valuable in itself and can arguably be extended beyond ‘practical only’ outcomes. Examples are available in the writing of Toulmin (1996),
Dick (1995) and Bawden (1995) and others. Newby (1997) challenges action research about its local and practical-only response to problematic situations suggesting that action research outcomes can apply more widely (unlike Porras and Robertson (1987) and Hodgkinson (1957)).

I recognise that while the outcomes are specific to the situation in which they arose, they can provide insight into the value of the learning processes that led to them. Callo (1995), Pretty and Chambers (1993) and Lomax (1986) refer to this and Newby (1997 p77) draws on the theoretical framework of discourses to argue that “Whilst the fact of reflexivity prevents us from returning to the naive view that research findings can have the objective status of timeless and more or less context-free truths, it does not condemn us to a view of knowledge which is no more than a multitude of personal accounts of particular situations.” On that basis my means of offering outcomes that may be of interest to others in extension is one of nominating the outcome and considering if there is literature that supports its generalisation to other situations. This approach is one suggested by Dick (pers comm)91 and is supported by Newby’s (1997) argument that referring action research outcomes to the utopian, scientific, philosophic and deliberative discourses, produces outcomes as propositional knowledge that can be ‘generalised’ as well as ‘localised’. It is similar to the meta-process theory approach that Lomax (1986) suggests can be used to analyse, criticise and synthesise action research outcomes in education such that they can be communicated more widely and less exclusively.

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91 Much of the literature to which I refer in Chapter 8 is already included earlier in my thesis. However, the role the literature is fulfilling here is consistent with the provision of a context in which action research outcomes can be considered for generalisability.
To complete my rationale I refer to two assumptions I hold and the preferred personal behaviour for me that arises from them. The first assumption is that I cannot teach anyone anything by telling them what they ought to do or referring to what I regard as ‘important’ (where the implication is they also should consider it so!). I assume secondly that individuals learn what they want to and I can only facilitate experiences that may promote their learning. My preferred behaviour in response to these assumptions is to offer information that I have found enlightening in a way that allows individuals with whom I am involved to have free and informed choice about its relevance to them. I recognise that the foundation of my rationale is that my human nature is to want to decide on action for myself rather than be told what to do.

Section 8.3 The cautious expansion of action research outcomes

In this section I explore three issues that arise from the emergent outcomes presented in Section 8.1 in terms of their generalisability to other extension situations. The three are:

1. The value of having a learning focus on relationships in group situations.
2. The role of reflecting on extension practice to enable a match between the principles we claim we follow in extension and the ones that are evident from our action.
3. The benefits of seeking disconfirming evidence rather than confirming evidence to develop critical understanding of emerging interpretations.
Section 8.3.1 Having a learning focus to relationships in group situations

I propose, based on reflections on my project experience and subsequent thesis writing, that if improving the quality of relationships amongst participants is a learning focus in group settings there will be increased likelihood of valid information being exchanged.

Argyris and Schon (1996) and Habermas (1992) provide a useful starting point for considering the generalisability of my proposition. Habermas is widely recognised as having developed accepted philosophic positions about communication that promote valid information exchange and Argyris and Schon have developed the theme in the organisational development field. These authors suggest that valid information is the foundation of useful and successful communication. My own experience, particularly in my project activities, supports the importance of valid information. It contributes to moving forward in action researching and to having outcomes emerge that are valued by participants. In Chapter 5 I suggested that the quality of relationships is a factor that influences access to the validity of the information exchanged.

I have found no significant body of literature referring explicitly to learning about relationships in agricultural extension situations. It is occasionally referred to as important in achieving useful extension outcomes (Scoones and Thompson 1993) but without suggesting it as a learning focus. Relationships do receive attention in organisational development. As in other areas the attention is not explicitly directed as a learning focus. The implication however, is that practitioners ‘learn’ about the relationship that exists between their client and themselves by practising the
development of a quality relationship. In organisational development it is referred to as contracting (Schwarz 1994; Garratt 1991a) and while explanations of the phenomenon vary, that of Garratt (1991a) includes developing a continuing relationship between a practitioner and a client that is grounded in trust so that difficult issues are raised and improved so that organisational change progresses.

Practitioners of organisational development refer to contracting as fundamental to achieving useful outcomes through creating understanding between those involved in any change management activities (Schwarz 1994; Garratt 1991a). “The essence of good consultancy is building up a relationship of trust with the client so that disagreements and misunderstandings may be brought out into the open, discussed and resolved” (Garratt 1991a p9). As an organisational change practitioner Garratt (1991a) is acknowledging that a relationship that is not contributing to improvement in an organisation’s problematic situation, is a problematic situation for the organisation. That is, the relationship is preventing change in the organisation’s situation.

Additionally, Garratt (1991a) and Schwarz (1994) acknowledge at least implicitly that they devote time to establishing and maintaining trust based relationships so that the main focus of their work, organisational development, can progress. I suggest that in establishing and maintaining the relationship they are learning about the relationship they have with a client. Given my observations I would argue that such learning should be an explicit focus for all participants.

Facilitating the learning of actors in the situation as a means of developing effective improvements in problematic situations in agriculture has substantial support (Stubbs et
al 1997; Bawden 1995; 1990; 1988; and Pretty and Chambers 1993). I suggest that, if the quality of relationships between actors seeking to improve a problematic situation is impeding their efforts then the incorporation of relationships as a learning focus can play a significant role in effecting the sought after improvement.

Thus although I found no explicit reference in the literature of agricultural extension to learning about relationships it occurs in other areas. The example given was how it is a focus for discussion in contracting in organisational development (Schwarz 1994; Garratt 1991a). As well, the agricultural literature refers to learning as the means of dealing with problematic situations (Bawden 1995). On that basis, if relationships are likely to be problematic, then learning about them seems appropriate.

**Section 8.3.2 Reflecting on individual extension officer practice**

The second issue about which I will present a case for other extensionists to consider is that of reflecting on individual extension practice. I propose that reflection is a means of providing for improved practice and that action science provides a way of conducting self-reflection. The extension practice that I am suggesting can be improved by reflection is facilitation of collaborative learning in group settings.

There are two sources of literature that support the idea of attending to facilitation in extension at an individual level. The first is the literature on experiential learning and its emphasis on reflection as a means for improving practice through learning. The second is in extension literature itself where there is increasing recognition of an
interventionist’s (facilitator’s) level of influence on what happens in agricultural extension.

In Section 4.6 I dealt in some detail with reflection as a function of experiential learning. The following is a brief summary of the material I presented there: Reflection is an important human activity and different individuals acquire different levels of skill in its practice (Boud et al 1985a). In general however, it is not a practice undertaken consciously or regularly (O'Neil and Marsick 1994; and Sterman 1989). In the adult learning literature Mezirow (1991) refers to the lack of attention to reflection generally and to a number of significant adult learning studies where it is afforded little attention. Authors who refer to the need for reflection include Kember et al (1997), Bawden (1995; 1990), Mezirow (1991), Russell and Ison (1991), Oja and Smulyan (1989), Brookfield (1987), Boud et al (1985), Schön (1983) Carr and Kemmis (1986) and Habermas (1973). Newby (1997) refers to its role in action research when he claims, “Many see the self as becoming, rightly, the main focus of the action research project, and indeed the main focus of valid educational research as a whole.” The usefulness of reflecting on individual practice finds ready support in the literature of learning.

In relation to extension itself, the role of the facilitator or interventionist is being increasingly recognised as contributing to the outcome of the activity. Chambers (1994) and Scoones and Thompson (1993) refer to poor quality interventions arising from a lack of self-critical awareness by extensionists and researchers. Callo (1995) recognised the potential for the facilitator to influence a community project in the
Philippines, likewise Burrows (1997) for nurse education. Russell and Ison (1993) inferred their understanding of the facilitator’s influence in a rangeland situation in western New South Wales. They acted on the activities pastoralists chose rather than activities influenced by their own roles as facilitators and researchers. Martin (1995) refers to this influence in his interpretation of power relations and its effect on group control in the Landcare movement. There is then, although not yet widely recognised in agricultural extension, an emerging recognition of facilitator influence on extension outcomes, but where the level of influence is commonly not recognised by the facilitators (Chambers 1994; Scoones and Thompson 1993).

It is in response to my appreciation of the extension literature, coupled with my awareness of influencing outcomes in my research, that I present reflection as a significant factor in improving facilitation practice. In my project work I used reflection based on action science concepts in developing my understanding of my impact as a facilitator of learning. Action science also provided guidance for me on how to change my behaviour. Argyris et al (1985 p237) suggest that action science “..... is expressly designed to foster learning about one’s practice and about alternative ways of constructing it.” They also claim that action science does this through interaction with others. It is the act of reflecting in a critical way\(^2\) about ourselves as facilitators that I am promoting as of value in extension situations. Although I found action science suitable other extension practitioners may find alternative techniques that better suit their situation.

\(^2\) When reflection is directed to our own behaviour it is referred to as critical reflection (Brookfield 1995,1992; Ulrich 1993; Habermas 1973).
I found no literature that suggests that attention to reflection about our own practice is inappropriate. There are however two points of note concerning the solitary practice of critical reflection (that is without input into the reflection process by others). The first is Habermas' (1973) suggestion that it may lead to self-delusion about the meaning of our reflections. The ideas and interpretations offered by others provide a richness of data that act to limit the development of self-delusionary outcomes. The second point comes from Brookfield (1994) who maintains, based on his contact with those doing self-reflecting, that it is a difficult and challenging task that requires a supportive environment.

Section 8.3.3 Seeking disconfirming evidence

My appreciation of the writing of Habermas (1984) leads me to believe that if we seek to disconfirm what we think we understand, rather than to confirm it, we are adding information to our understanding by using the challenge of a dialectic. Three sources of material support, at least indirectly, the seeking of disconfirming information. They are the literature relating to recognition of the influence of frames of reference on our development of perspectives about issues, the literature of action science, and the philosophy of hypothetico-deductive research. My interpretation from these sources follows.

The proposition that the frames of reference that we hold influence each of us in our interpretation of interactions with others helps explain why misunderstanding and misinterpretation happen. Authors who maintain that an inquirer's frames of reference
(or some similar term) set boundaries and limits to the perspectives that determine the direction of inquiry include Schon and Rein (1994), Mezirow (1991), Schon (1987), Argyris et al (1985), Schon (1983) and Habermas (1973). All of these authors refer to the limitations that frames can produce and suggest the need to seek ways to move outside them. Boud and Walker (1990) refer in particular to the impact of previous experience in setting frames of reference.

Argyris and Schon (1996) argue the fallacy of assuming that we know the intentions of others and their reasons for action. The boundaries thus created determine the perspectives considered by inquirers and inhibit consideration of other perspectives. My experience in agricultural extension supports this interpretation and leads me to suggest that a way of generating a different perspective on an emerging understanding is to seek to disconfirm it.

The literature of action science offers direct support for my suggestion. Argyris and his colleagues (Argyris and Schon 1996, Argyris 1990, Argyris 1987 and Argyris et al 1985) suggest that human beings learn to operate for the most part by being in control. They furthermore suggest that we tend to assume we understand what is happening, especially in situations that are threatening, and then seek to find evidence that confirms that understanding. We do this rather than show ourselves as unsure. My observation of my own behaviour supports this. In seeking confirmation we selectively use information to provide evidence. Argyris suggests that a common outcome of this seeking of apparent control is defensiveness and that this leads to patterns of (mis)communication that escalate error of interpretation and understanding. The end
result is cynicism about others' motives and a belief that our own defensiveness needs no change (Argyris 1987). The implication is that one way to increase our understanding and make more information available in interactions and inquiry is through seeking to disconfirm an emerging understanding of our communication with others (Argyris and Schon 1996). Dick (1987a) used this idea in developing a process of convergent interviewing for inquiry where the seeking of disconfirming evidence increases the likelihood of developing valid interpretations.

I believe a fundamental assumption of hypothetico-deductive research lends weight to my suggestion - it is that theories cannot be confirmed, only disconfirmed, “For our critical examination of our theories leads us to attempts to overthrow [disconfirm] them; and these lead us further to experiments and observations of a kind which nobody would ever have dreamt of without the stimulus and guidance both of our theories and of our criticism of them.” (Popper 1979).

Thus it appears that the emergent outcome of the value of seeking disconfirming information finds support in the literature of frames of reference in inquiry, action science as well as in that of hypothetico-deductive research. On that basis it seems possible to suggest the practice of seeking disconfirming evidence for other extensionists to consider as a practice in their activities.
Section 8.4 Future directions for my collaborative action researching

Action research methodology provides for further cycles based on the emergent outcomes to date. Although the particular project is finished, further cycles of action research can be incorporated into my subsequent practice. Furthermore, the calls for an expanded focus on the sociological aspects of agricultural extension (Stubbs et al 1997, Vanclay and Lawrence 1995, Fitzhardinge 1994 and Lawrence et al 1992) suggest that the flexibility and continuing nature of action research methodology (Bawden 1995; Dick 1995; Carr and Kemmis 1986) maintains its relevance in the social situation of agricultural extension practice with pastoralists in the rangeland of the central west Queensland.

The two areas of my interest relate to collaboratively action researching about relationships in group settings. The latter relates to my sense of a ‘thematic concern’ (Carr and Kemmis 1986) in action research terms, about the value of improved relationships among participants in agricultural extension (Scoones and Thompson 1993). The first area concerns ‘dialogue’ as a means of making understanding of relationships discussable in groups and thus learning at all levels about relationships. The second is the role of personality types in group situations and their impact on relationships.

A third area of my interest also related to collaboratively action researching, is that of developing a model of action learning. I will refer to this in Section 8.4.3.
Section 8.4.1 Dialogue

Bohm (1990) refers to ‘dialogue’ as open discussion that promotes new understanding and the development of participants’ perspectives about an issue. Cayer (1997) supports this interpretation and challenges the view that it is just another “tool” for use in organisational development. Bohm (1990) expresses his concept of ‘dialogue’ as “...a flow of meaning in the whole group, out of which will emerge some new understanding”. Schein (1993) refers to ‘dialogue’ as a process of providing for shared meanings and a common process of thinking in a group.\(^9\)

A major focus of the work of Dick and Dalmau (1992; 1991;1991a) and Dick (1990a; 1987) has been devoted to developing processes that generate ‘dialogue’ among people, usually with a particular purpose in mind. Their processes provide a practical means of achieving authenticity of ‘dialogue’ and as such they offer the opportunity to learn about what is happening in group situations, including ways of improving relationships.

Areas in which Dick and Dalmau have developed processes for generating ‘dialogue’ include the consideration of how participants underlying values influence action, group effectiveness and conflict resolution. Additionally they consider how to ‘dialogue’ to generate organisational change through discussing the undiscussable.

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\(^9\) If there is an aspect of group life that ‘dialogue’ in this form may need to be cautious of it is the phenomena of ‘groupthink’. Groupthink is the outcome that occurs when members of the same group believe their emerging ideas and do not question each others except in a way that confirms the ideas as appropriate. Dialogue allows for challenge to emerging understanding.
‘Dialogue’ among participants offers a starting point for generating learning about relationships. Collaborative action research that seeks understanding of the conditions that will support ‘dialogue’ among pastoralists and extension workers in central west Queensland’s rangelands offers a future avenue in my work.

Section 8.4.2 Personality types

In Section 4.6.4 I argued that individuals’ mental constructs of their social relationships can influence the level of criticality in learning. Following that, in Chapter 5, I interpreted field observations to suggest that seeking improvement in relationships in group experiential learning situations is of value. I then proposed learning about improving relationships as an additional dimension to Bawden’s (1995) model of a critical system (Section 5.6.1). A concept that offers a means of learning about relationships is the use of the Myers-Briggs Type Indicator (MBTI) of personality type (Myers and Myers 1993; Quenk 1993) and I see this as the second focus for my future collaborative action research.

The MBTI provides a means of understanding why we and others act as we each do. It does so in a way that supports an improved quality of communication. Pretty and Chambers (1993) suggest that differences between individuals need affirmation rather than rationalisation to a depersonalised commonality embracing few of those in the system. They suggest that the future is uncertain, complex and dependent in part at least on current situations. In such circumstances they propose that the voice of individuals and groups in decision-making is to be valued.
Including the voice of individuals means taking into account the context of the situation for them. Russell and Ison (1991) refer specifically to the need to contextualise science in the rangelands where one of the elements is the people in the rangeland. Attention to personality types in a way that increases understanding about the human elements in rangelands will enhance the interpretation of the rangeland situation in which extension occurs.

An additional aspect making attention to personality type worthwhile relates to the development of defensive routines. Argyris and Schon’s (1996) suggest that individuals establish defensive behavioural routines as a means of remaining in control in situations that are threatening or uncertain. My interpretation is that defensive routines are likely to produce non-authentic information exchanges and thwart attempts to contextualise agricultural extension to meet individual and group needs.

Barger and Kirby (1995) maintain that relationships based on sharing and support enhance beneficial change in difficult or uncertain times. They suggest attention to psychological type (personality type) facilitates the forming and sustaining of productive relationships and the affirmation of individuality called for by Pretty and Chambers (1993) in current agricultural extension contexts. It could also provide a foundation for overcoming the defensive routines that Argyris and Schon (1996) maintain are evident in times of uncertainty. All of which highlights the potential significance of collaborative action research dealing with psychological type as a future direction for my activities.
I believe that a focus on personal development based on personality type can contribute to the emergence of level III or epistemic learning. Primarily this can arise through the explicit development of understanding of others' personalities, and of understanding of interpersonal relationships (Quenk 1993; Myers and Myers 1993) and contextualising them in the framework of learning. Personality type learning (understanding) and use in relationships involves a level of consideration of the self in the relationship. The inclusion of the role of the self is what I have interpreted in Chapter 4 as characterising emancipatory learning in Habermasian terms at learning Level III. The emergence of Level III learning will however, require a focus on developing an understanding of the relationship between the knower (self) and what is known (in this case about the self in the form of personality type).

Support for the potential of such learning to promote Level III learning is evident in Stansfield’s (1996) work with students and their feelings about their learning. The work confirms the role of personal development in promoting independent learning skills that involve the acceptance of peer feedback and effective group working. Both of these processes are ones that Brookfield (1987; 1993; 1994) suggests provide for the critical learning required to reach Level III learning.

Learning III enhances the prospect of improvements that are longer term (Torbert 1983) or persistent (Bawden 1995) in problematic situations through defining the role of the self in the situation. Purdy (1997) however, observed that where situation imperatives are present, an accent on competencies related to the imperatives compromised the facilitation of employees personal development. Purdy proposes that in nurse education
the accent on technical competence compromises the facilitation of the nurses’ personal development. Kemmis (1996) makes a similar observation related to the training of educators when he refers to system or institution directed imperatives restricting the practice of emancipation in learning.

My interpretation is that organisational development warrants consideration to assess how a learning organisation can develop learning III in the presence of other imperatives without an organisational imperative that states its purpose as developing employees as emancipatory learners.

Senge (1990) and Issac (1993) both present models of dialogue portraying the incorporation of a business imperative to focus, and I would suggest limit, the possible outcomes of ‘dialogue’. This contrasts with the interpretation made by Cayer (1997) who suggests that Bohm’s open-ended ‘dialogue’, which is unlike Senge’s (1990) and Issacs’ (1993) interpretation, can produce learning III. Cayer (1997) refers to the need to free ‘dialogue’ from its “utilitarian yoke” if learning III or emancipatory learning is to be attained. His call is similar to that of Kemmis (1996 p200) who argues for education to continue committing to emancipatory perspectives by “... resisting system-shaped [institution dictated] relationships [boundaries] in our lifeworlds and consciousness ...”.

My interest for the future development of my practice is the synthesis of the two areas of ‘dialogue’ and personality type to explore the potential of the integration to
contribute to sound relationships and emancipatory learning in group (or organisational) settings.

Section 8.4.3 Action learning

In Section 1.4 I wrote of the Queensland Department of Primary Industries’ aim of promoting client (farmer) self-reliance through an extension strategy. In Section 1.5 I referred to my desire to progress pastoralist self-reliance in complex situations through developing their skills in experiential learning. Later in Section 5.5.1 I noted the development from field observations of insights about my need to create transparency of process so pastoralists knew how learning (change) was occurring. It is my current suggestion that transparency of learning process can contribute to the development of self-reliance. Self-reliance can include unfacilitated action learning through pastoralists initiating and self-facilitating their own learning sets.

My interest in action learning arises from its social elements (Revans 1982). Additionally it provides for learning situations that require only initial facilitation as is Revans’ suggestion. Action learning in that model is in contrast to the Hawkesbury model of experiential learning using a facilitator to lead processes that generate knowledge in the domains of the Kolbian (1984) experiential learning. Revan’s model is also in contrast to most other authors of action learning (e.g. McGill and Beaty 1992) who favour continuing facilitation of learning sets. Facilitated action learning sets however, include the questioning elements of the usually described action learning model.
I have elsewhere (Section 5.5.1) suggested that action learning is a particular but less sophisticated form of experiential learning. I also referred to my interest in action learning arising from my belief that pastoralists would find its social aspect of use in learning.

My action researching with pastoralists developed my understanding that their preference is for facilitated approaches to generate learning rather than unfacilitated ones. They report this although at the MTT we collaborated to develop and used in our group setting, a model of pastoralists questioning pastoralists that appeared useful for unfacilitated situations. A similar phenomenon of woolgrowers preferring to participate in facilitated learning experiences is emerging in work by the International Wool Secretariat (IWS) into their Producer Initiated Research and Development (PIRD) program (Mills pers comm).

A possible future starting point for collaborative action researching is whether or not this choice is a cultural feature of the central Queensland pastoral scene. Pastoralists at both Westland and MTT stated that they do not usually critically question other farmers about farm practices.

It will be appropriate to do such a study as collaborative inquiry to allow for emergence rather than assume any determining factor. The work of Passfield (1996) may provide a useful input into any extension of my future work in this area. He suggests that a preoccupation with the form of action learning rather than its substance can lead to less useful action learning interventions.
Section 8. 5 My thesis as a self-reflective document

I began Chapter 1 by referring to Perry and Zuber-Skerritt’s (1992) model of graduate action research. They separated action researching for graduate researchers into core and thesis projects. The concept enabled me to recognise a reflective tone to the documenting of theses and enables me to recognise that as the record of my thesis action research project, this document is a reflective one catering for a reflective preference in my practice. As such it focuses on my practice as an agricultural extension officer facilitating experiential learning with pastoralist farmers.

There is however, a need for balance between reflection and action and Heron (1988) refers to this when discussing validity in co-operative inquiry. The balance is also inherent in Kolb’s (1984) concept of experiential learning wherein reflection is balanced with action in the ‘real’ world.

In this document I have focussed on my practice from a reflective stance. In completing this thesis I recognise that I will practise to balance my reflection with action.
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ACTION RESEARCHING MY PRACTICE AS A FACILITATOR OF
EXPERIENTIAL LEARNING WITH PASTORALIST FARMERS IN CENTRAL
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December 1997
PLEASE NOTE

The greatest amount of care has been taken while scanning this thesis,

and the best possible result has been obtained.
This thesis is original work submitted to the University of Western Sydney, Hawkesbury. None of it has been submitted to another institution for a higher degree.

Gerard Michael O'Brien Roberts
ACKNOWLEDGMENTS

Thank you to the members of the Westland and MTT groups for your time and commitment while we were involved in the project. I am hopeful that the learning outcomes, that seem apparent now, flowed sufficiently in your direction to offer value to you as it has to me.

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Throughout my time doing this project the Department of Primary Industries has supported me with funding and their belief in the value of research into extension practice. In particular, Warren Hoey and John Childs have given me the space to combine my project and my DPI work. It is my fervent hope that the spin-off from my study is the continuing advancement of DPI extension. It is also my hope that Departmental support for such research continues. Additionally, I would like to thank the wool industry as it was they who provided the initial operating funds for the project.

The staff of the DPI Library have been invaluable in providing resources for my research needs. When other sources failed, they delivered. I cannot remember a request that they have not answered for me. Robin Galagher has been my particular
contact but I know that many others have contributed to delivering a library service that is very effective.

My wife Lenore has supported, assisted and encouraged me throughout the six years of study. I know my involvement with the project has limited us in doing some of our favourite activities and I know that she does not begrudge the loss of even one of the activities my work stopped us doing. Thank you Lenore for being you.
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Action Researching My Practice as a Facilitator of Experiential Learning
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Abstract

My thesis document is contextualised as a three year study of my practice as a facilitator of experiential learning with pastoralist farmers in my role as an agricultural extension officer. In the study I used an action research methodology to provide change and understanding in situations in which it was too difficult to control variables. In my use of the methodology, action provided change and research provided understanding. The action research methodology also provided rigour through the spiral of its cyclic process.

The notion I began action researching was that of having pastoralists develop the skills of experiential learning as a means of promoting their self-reliance. I believed that self-reliance in that form would enable them to resolve complex issues for themselves.

When I had begun the study action researching that notion, my reflection highlighted my own practice as a fundamental part of the system that was in operation when I was facilitating pastoralists’ experiential learning. The thesis shows how the issue of my own practice arose in my reflection and how I used the action research methodology to develop ways of resolving the difficulties of the issue.
Within the context of pastoral farming situations the experiential learning process provided a process that led to reports of learning outcomes matched to the thematic concerns of participants. As well, it provided a process for dealing with the issues that arose in group functioning, including my role as the facilitator.

From using the experiential learning process in my research context I hypothesise that, as the facilitator of experiential learning, I benefit from having a specific problematic situation to deal with explicitly in the group setting using the experiential learning processes. In this way, by modelling experiential learning, I can provide a focus for learning about how learning is occurring for group members. As well, my project observations suggest that relationships in our groups at times affected the exchange of authentic information in experiential learning situations. My reflection and theorising suggest that for that reason we should take particular care to experientially learn about our relationships in group situations. These two learning outcomes have led me to theorise about their inclusion in a modification of Bawden’s (1995) model of a learning system.

Within the agricultural extension context, my learning outcomes about my role in working participatively and collaboratively with pastoralists, prompted significant change in my practice of facilitation. The change enabled us as an experiential learning group facilitated by an agricultural extension officer, to provide for pastoralist participants to increasingly direct their own learning. From reflection on the project observations that led to my working more collaboratively and participatively, I theorise
that improved facilitation practice can derive from personal and collaborative reflection as a part of action researching.

My reflection, during the process of thesis writing allowed me to use action science to demonstrate that my improved facilitation practice came about from enhanced congruency of theories of action of participation and collaboration. Personally, I developed a more congruent practice of participation and collaboration through action researching my practice of facilitating experiential learning with pastoralists, and by reflecting on the emergent outcomes for me as the facilitator.

This thesis concludes with my consideration of whether or not my specific learning outcomes may provide a foundation for some cautious expansion of the emergent outcomes of the action research such that they may be of interest to others in extension.
Addendum: Three Key Definitions

Experiential Learning

Kolb (1984) describes experiential learning as a process involving four adaptive learning modes. These are concrete experience, reflective observation, abstract conceptualisation and active experimentation. In his model the four modes occupy two dimensions on which dialectically opposed orientations are positioned. Learning emerges from transactions to resolve dialectic tensions between the modes. The dialectically opposed orientations are concrete experience (apprehension) and abstract conceptualisation (comprehension), and reflective observation (intention) and active experimentation (extension).

Critical Learning System

A critical learning system incorporates the concepts of experiential learning, and systemic and critical thinking. It recognises that individuals experience the world differently and use different metacognitive processes and epistemologies in deriving meaning from their experience. It involves individuals in coherent interactions that cross paradigmatic boundaries as they collaborate to reach common understanding of problematic situations and act to improve them.
The Hawkesbury Approach

The Hawkesbury Approach referred to in this document is the facilitation of engagement with problem situations to create critical learning systems.