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SELF-DIRECTED LEARNING OF FARMING COUPLES

A thesis
submitted in partial fulfilment
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by
John Stafford King

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SELF-DIRECTED LEARNING OF FARMING COUPLES

The objective of this study was to provide an exploratory account of the nature of self-directed learning (SDL) of farming couples. This study investigated some key components of SDL activities, the sharing of SDL between cohabiting partners and the influence of social networks. Allen Tough's 'learning project' criteria were used to identify SDL activities. Adaptations to Tough's method included the use of multiple interviews, interviewing partners together and no pre-coded categories for the analysis. The study utilised the snowball technique to generate a sample of 12 couples from a rural community located in the North Canterbury province of the South Island of New Zealand.

The SDL activities in this study differed in nature to that proposed by Tough and had similarities to previous qualitative studies. Self-directed learning was often a reaction to external circumstances of social and physical environments and was governed by the availability of time and resources. Rather than pre-planning their activities, most partners instinctively engaged in opportunistic informal consultations when socialising, evaluated their activities by reference to changes in their external environment, and often experienced unanticipated insights during or upon completing their activities.

This study also examined the social dimensions of SDL. The SDL activities of cohabiting men and women differed. Each gender focused on different tasks within the relationship as a result of their different backgrounds, cohabiting roles and social networks. This observation led to the term 'learning domain' which accounted for the ownership of SDL activities. The transfer of, and sharing of, ownership of SDL activities between partners appeared to encourage personal insights about each other which helped to maintain the cohabiting relationship. Furthermore, when using social networks, partners had preferences for particular types of learning assistants to assist in implementing and evaluating SDL activities, and these preferences appeared to be associated with gaining and maintaining local acceptance in the community.

KEYWORDS: Self-Directed Learning, New Zealand Farming Couples, Learning Domains, Adult Development Tasks, Rural Cohabitation, Snowball Sampling.
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"What is necessary to change a person is to change his awareness of himself"

Abraham. H. Maslow.

The completion of this thesis is dedicated to a number of people.

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Chapter One

INTRODUCTION

1.1 General Introduction

This thesis reports a study about adult learning. Over the past four decades, a body of educational research has focused on adult learning outside the formal institutional setting. This research has explored adult learning behaviour in informal settings. Through understanding how and why people strive to reach the visions that inspire them to learn, adult educators can assist adult learners by providing the opportunities and resources for them to pursue their learning interests.

This thesis examines the adult learning activity of 12 farming couples from North Canterbury, a province of the South Island of New Zealand. The following paragraphs introduce the main theme of this study, Self-Directed Learning (SDL), and locates SDL within the field of Adult Education. It also describes the rationale of this study, the research objectives and the format of this thesis.
1.2 The Concept of SDL

In adult education, the area which has received the most attention has been adult learning (Merriam, 1987). One of the pioneers of adult learning is Allen Tough. Tough developed the concept of 'learning projects' in the mid to late 1960s to investigate adult learning activity. Tough's work assisted in the establishment of adult learning research in three ways: it shifted the focus of educators' attention to the phenomenon of adult learning; it challenged whether adult learning only happened in the presence of a teacher and; it assisted in changing the false perception of non-institutional learning being serendipitous, ineffective and wholly experiential (Brookfield, 1984, 1986).

Merriam (1987) and Merriam and Cafferella (1991) separate adult learning into three categories: self-direction, adult participation (in adult education programmes), and the holistic adult learning theories. For this thesis, self-direction is the most important of adult learning. Self-direction in learning is an umbrella term which is mainly associated with learning outside the formal traditional institutions. It is defined as a process of learning where the learner chooses to assume the primary responsibility for planning, carrying out and evaluating learning experiences (Brockett & Hiemstra, 1991; Cafferella, 1993; Candy, 1991; Merriam & Cafferella, 1991). It views learning from the perspective of the individual person. This study explores how learners plan, carry out and evaluate their SDL.

Despite the ready definition of SDL, there is a degree of conceptual ambiguity and confusion associated with it, as illustrated by the many terms used to refer to the concept (Oddi, 1987). Tough (1967) originally used the term 'self-teaching' whereas Candy (1990) uses the term 'autodidaxy'. From the confusion about the terminology of SDL evolved another distinct but related dimension of self-direction in learning, the notion of SDL as a personality construct. This notion focuses on the responsibility and control of the learning process (Brockett & Hiemstra, 1991; Cafferella, 1993; Candy, 1991; Merriam & Cafferella, 1991) emphasising the
autonomy of the learner and the learning they engage. Candy (1991) uses a continuum to illustrate the multivariable nature of the responsibility of learning. In an educational setting Candy shows how the responsibility of learning shifts from people who formally instruct learners to learners assuming that responsibility for themselves.

1.3 Rationale for this Study

Replication of Tough's research over the past 25 years has built a substantial data base about SDL activities. However, a review of this literature reveals gaps in research that has used Tough's method. Despite Tough's (1978, 1979, 1983) reference to a study in New Zealand, there are no published studies of this nature regarding New Zealand populations. There are no studies focusing on farming populations. Additionally, the research is dominated by an individualistic perspective as the social context of learning has generally been ignored (Brookfield, 1983, 1984, 1985b, 1987).

The South Island of New Zealand provides an excellent location to examine a population that would contribute to the literature of SDL. By focusing on a farming community some distance from an urban centre, this study could investigate the SDL activities of adults who appear to have little access to educational facilities.

1.4 Research Objectives

This study set out to provide an exploratory account of the nature of SDL of farming couples. In adapting Tough's method this study investigates SDL by identifying and then describing the nature of SDL activities by using qualitative research techniques and an iterative approach to explore and discover insights about SDL.
The qualitative research techniques would specifically investigate the:

a) individualistic nature of SDL by exploring key SDL components;

b) social nature of SDL by exploring and describing the sharing of SDL activities between cohabiting partners and the influence of social networks on partners’ SDL activities.

An important part of this study is to focus on how cohabitation, occupation and living in a rural community influences SDL.

1.5 Thesis Structure

In the remainder of this thesis, Chapter Two reviews the appropriate adult learning literature. Chapter Three details the methods used in conducting the study and Chapter Four recounts the responses to specific questions asked about SDL as well as documenting the nature of shared SDL. Chapter Five discusses the findings presented in Chapter Four with respect to the research objectives, the literature reviewed, the methods used, and concludes the study.
Chapter Two

LITERATURE REVIEW

2.1 Introduction

The previous chapter briefly described the origin and the nature of SDL (self-directed learning) within the field of adult education and outlined the reasons for this study. This chapter reviews the literature associated with the work of Allen Tough and his contribution to the concept of SDL, the transformation of the concept of SDL in the light of research following Tough and the components of SDL which this study investigates.

Because this study modified Tough’s method to identify and describe SDL activities there is a need to understand the difference between Tough’s work and the current concept of SDL. This chapter uses three sections to explain these differences. The first section reviews the contribution Tough and his contemporaries have made to SDL. The second section explains how the criticism of Tough’s work was fundamental in transforming the concept of SDL to its present state. It also reviews four SDL components which are important in understanding SDL. The third section reviews the wider social context in which SDL occurs regarding heterosexual cohabitation and learner social networks.
2.2 Tough’s Contribution to SDL

In describing and summarising Tough’s work, this section provides an account of the initial research attempts to describe the SDL phenomenon. During the mid to late 1960s, Tough investigated the extent of self-teaching as part of all adult learning activities. The primary tool of Tough’s research was the ‘learning project’. Tough (1979, p. 7) defined a ‘learning project’ as "a series of related episodes, adding up to at least seven hours. In each episode, more than half of the person’s total motivation is to gain and retain certain fairly clear knowledge and skill, or to produce some other lasting change in himself." Consequently an episode was defined as "a period of time devoted to a cluster or sequence of similar or related activities, which are not interrupted much by other activities." Tough’s learning project referred to learning undertaken by people for a significant time period and in a serious way, but independent of formal institutions.

Learning projects are directly related to the psychological construct of intention (Sexton, 1990). Learners intend to use or apply knowledge or skills to complete a task in anticipation of achieving a goal. Powerful emotive forces within the learner motivate this desire. Tough emphasised that vague goals do not constitute learning projects, nor do situations where the learner is persuaded rather than instructed. Tough (1978, 1979, 1983) sets out a number of criteria to identify a learning project:

a) to gain knowledge and/or skill (to be retained for two days or more);

b) to be highly deliberate (where more than half the person’s motivation had to be learning and retaining certain, definite knowledge or skill);

c) to have a clear focus (people had to know what they were trying to learn); and

d) to engage in learning knowledge or skills for at least seven hours over a specified period (usually six months or longer).
Tough’s definition and criteria of a learning project has drawn a number of criticisms. Sexton (1990) questions whether Tough’s learning project advances the humanistic perspective of the learner that Tough set out to portray. Further, with emphasis on planning, Tough’s learning project portrays learning as an episodic phenomenon rather than a dynamic process (Oddi, 1987) where all projects are of equal significance to the learner (Brookfield, 1984). Another criticism is that there is no measure of the quality of learning (Brookfield, 1985a, 1985b). Finally, Brookfield (1984, 1985b) and Candy (1991) questioned whether the number of hours represented a meaningful learning endeavour even though many projects far exceeded the seven hour limit (Brockett & Hiemstra, 1991).

There are many reviews of SDL and research associated with learning projects. Initially, the reviews simply summarised Tough’s work (Nuthall, 1972; Tough, 1978, 1979, 1982b, 1983, 1989). Later reviews were more critical of Tough’s perspective of SDL (Brockett, 1983, 1985; Brookfield, 1981a, 1983, 1984, 1985a, 1985b, 1986) and the most recent reviews now contextualise Tough’s work within the expanded concept of SDL (Brockett & Hiemstra, 1991; Cafferella, 1993; Cafferella & O’Donnell, 1987; Candy, 1991; Merriam & Cafferella, 1991; Oddi, 1987). The later reviews state Tough’s contribution to the concept of SDL revealed the frequency and nature of SDL activities by using descriptive statistics (Brockett & Hiemstra, 1991, p. 54) [original italics].

Tough’s 1978 international review of SDL provides a summary of his description of SDL. Tough (1978) concluded that the typical learner conducted five projects per year. Each project averaged 100 hours and of all projects, 73% were self-planned. Two-thirds of projects were active at the time of the interview (Tough, 1979). Tough (1978, p. 252) believed his interpretation of basic SDL activity was "remarkably consistent" between populations, a claim many commentators believe is largely substantiated (Brockett & Hiemstra, 1991).

One of the most attractive aspects of Tough’s work was the ease at which it could be
replicated. While many replications have assisted Tough's contribution to SDL, and there are 77 studies listed by Candy (1991), very few have canvased rural populations. The studies which have focused beyond urban populations have investigated the rural public of North American (Leean & Sisco, 1981; Lensch, 1980; Peters & Gordon, 1974) and people from the Australian agricultural service industry (Underwood & Salmon, 1981). All four studies essentially agreed with Tough's (1978) claims, but added little to our knowledge of the SDL activities of farming people. Only Bayha (1983) has specifically studied farming people but his work concentrated on resource use and valuing rather than describing SDL activities.

However, scope remains for misinterpretation when reviewing replicated studies because of the differences in research design. When replicated studies are closely examined, researchers have often varied "the specific questions asked, the actual interview process, and the data analysis procedures" (Brockett & Hiemstra, 1991, p. 53). Comparisons are further compounded by the sketchy descriptions of participants (Cafferella & O'Donnell, 1987; Merriam & Cafferella, 1991). Upon reviewing the replicated studies of Tough's work, there now exists a better understanding of the limitations of learning project research. It was the realisation within adult education of the limitations of learning project research which encouraged a reconsideration by researchers of the nature of SDL. The work of Leean and Sisco (1981) provides an example of a qualitative approach which extended their findings beyond the descriptive statistics which characterise replications of Tough's work.

2.3 New Perceptions of the Concept of SDL

This section describes the transformation of SDL since Tough discovered the concept. This section has two functions. The first function is to explain the changes in the SDL concept since Tough's initial contributions. These changes include greater acceptance of qualitative research methods which have provided a basis for adapting Tough's (1979) method. The second function is to summarise research and comments about four components of SDL which
are important in understanding SDL. The importance of the social context in SDL is alluded to throughout this section and is examined more fully in Section 2.4.

In 1984 Brookfield critically reviewed the entire field of SDL research, as adult education was "in danger of accepting uncritically a new academic orthodoxy" (Brookfield, 1985b, p. 5). An inconclusive debate between Brockett (1985) and Brookfield (1985a) about the samples, methodology, and the individual and sociopolitical interpretations of SDL research, highlighted the confusion about the conceptual nature of SDL during this period. Tough's technocratic approach to SDL, in which learning is seen as a regular sequence of stages, was challenged by Chene's (1983) discussion of autonomy and the learning process descriptions in earlier works of Danis and Tremblay (1987) and Spear and Mocker (1984). These authors not only questioned the "mechanised behavioural orientation" (Sexton, 1990, p. 95) of the SDL process as perceived by followers of Tough but also the method of research which fostered that particular view. The four rural focused studies reviewed in the section above (Leean & Sisco, 1981; Lensch, 1980; Peters & Gordon, 1974; Underwood & Salmon, 1981) are typical of SDL research conducted during this time.

The reviews by Brookfield (1984, 1985a, 1985b), Brockett (1985), Cafferella and O'Donnell (1987), and Oddi (1987) assisted in broadening the set of issues associated with the concept of SDL. As a result, they questioned whether replicating Tough's work was of any further value. Any further verification studies required a new approach (Cafferella & O'Donnell, 1987) as Tough's work had reached a point of saturation (Brockett & Hiemstra, 1991). The concept of SDL had reached a stage where research required qualitative analysis for further discovery (Brookfield, 1985b). This stage was significant because it introduced a fundamentally different research approach to that practiced and advocated by Tough.

From the literature on SDL research, four components of SDL are important in understanding its nature. These components are: incentives, planning, assistance and evaluation. Despite
the modern critiques of Tough’s research there is relatively little disagreement that SDL has these four important elements. These features represent a common perception of the linear nature of the learning process as described in formal traditional learning settings (Cafferella, 1993). Why did SDL activities start? How were SDL activities implemented? What assistance was used in the experience? And how were SDL activities evaluated by learners? The following subsections discuss each component by examining Tough’s (1979) beliefs and revealing views which have emerged since then.

2.3.1 SDL Incentives

Tough assumed that pre-determined goals signalled and encouraged the start of SDL. Recent studies have broadened this component and contested Tough’s assumption. Although SDL activities may originate from intuitive desires, direct needs, or link to past experiences (Leean & Sisco, 1981), the goals of such activities may only become apparent after the learning process has started (Danis & Tremblay, 1987).

There are other problems with Tough’s assumption about the onset of SDL. Oddi (1987) notes intention may not be a conscious part of SDL and that learning may occur for a variety of reasons that are not pre-determined. In addition, previous learning project research has presented motivational reasons that are not consistent with Tough’s definitions: "general interest" (Leean & Sisco, 1981) does not reflect a clear focus about learning projects; and "enjoyment from practising a skill" (Underwood & Salmon, 1981) does not reflect the retention of skill or knowledge. Therefore, SDL incentives may involve motivations of self-directedness and specific goals.

The work of Danis and Tremblay (1987) and Spear and Mocker (1984) reveal SDL incentives as humanistic, involving curiosity, interest or challenge which drive the motivation to learn. These were incentives that Tough (1968) had also previously documented but chose instead
to focus on motivation. Brockett & Hiemstra (1991) proposed that learners reveal the extent of their self-directedness through expressions of responsibility about their own SDL activities. They do this when describing the circumstances which initiated an activity.

In order to understand the SDL activity identified by this study, the incentives of SDL activities are investigated. This provides the opportunity to explore which life circumstances trigger the SDL of members of the sample. Tough did not focus on the external factors that influence SDL as his work was concerned with the planning and implementation of SDL. This is discussed in the next subsection.

2.3.2 The Self-Planned Nature of SDL

Arguably the most important finding to emerge from Tough's work is who actually does the planning for SDL (Brockett & Hiemstra, 1991). Approximately 80% of SDL is done without the help of an educational professional; and of this 80%, 73% is by the learners themselves and 7% is by other non-educational people (Tough, 1978). Tough used this finding to develop his iceberg analogy of adult learning, illustrating that most adult learning is invisible because it can not be documented through participation in educational programmes (Tough, 1978, 1979, 1983).

From his research, Tough presented a schedule of 26 planning steps undertaken by the learner (Tough, 1979). Although learners seldom engage in a learning project "without some goal or purpose in mind" (Candy 1991; p. 177), there is debate about whether they plan their learning experience. Tough's belief - that learning has a pre-arranged order - has been criticised as linear and similar to formal institutional learning (Candy, 1991; Oddi, 1987; Spear & Mocker, 1984). Tough (1979) accommodates this criticism by stating that learners omit steps or perform several almost simultaneously implying the learner is not always conscious of planning their SDL (Spear & Mocker, 1984). Tough (1982a) later substitutes
the word ‘task’ for ‘step.’

Other research indicates learners seldom articulate their SDL in planning terms (Danis & Tremblay, 1987). For example, Candy (1991, p. 176) states "that learners were not able to state with precision what they expected or even hoped to learn." Spear and Mocker (1984, p. 2) found little evidence of pre-planning, although learning did have a "definite order, deliberateness and logic." This finding was similar to that of Leean and Sisco (1981) where learning sequences were guided by "a natural, rational problem solving mode," although much of SDL occurred through non-rational means. Examples of non-rational learning included: "back burner thinking," "spontaneous" and "dream thinking" (Leean & Sisco, 1981, Section II:28-29).

Tough’s research assumes that all SDL is planned. It now appears that adults do not always pre-plan their own SDL activities and/or are unable to describe learning in this manner. This study assumes members of the sample will have similar SDL behaviour to other rural populations studied, but does not assume they are aware of their planning.

Tough’s work also highlighted the reliance on external resources, both human and material (Brookfield, 1985b). The next subsection focuses on how these resources assist SDL.

### 2.3.3 Assistance with SDL: Planning and Information

Most SDL is assisted by human and/or material resources. Tough (1979) divided learning assistance into two types based on their function; planning assistance and information assistance. One assistant can provide both functions simultaneously (Tough, 1979). Candy (1991, p. 181) summarises four reasons proposed by Tough (1967) for learners to involve

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1 From the Executive Summary of Leean and Sisco (1981).
assistants in their learning: "unfamiliarity with the field or its terms or concepts and therefore not knowing where to begin; lack of knowledge about the steps required to master the subject or skill being learned; the need for emotional support and encouragement; and help with specific problems of information as the learning proceeds."


The extent of oral transfers in SDL activities is revealed in the results of Bayha (1983), Lecan and Sisco (1981), Lensch (1980), Peters and Gordon (1974), Underwood and Salmon and in the New Zealand study by Moore (1990). The greater use of material assistance in learning has been associated with urbanisation (Peters & Gordon, 1974) and increasing age (Mills, 1989). Danis and Tremblay (1987) suggest the more focused learners become about the content of their learning, the more assistance they will seek from specialists. Little research has been documented about the relationships between learners and their assistants (Candy, 1991). It appears learners rely on people with closer emotional connections or experts in the topic of learning. Experts are not necessarily individuals with recognisable qualifications (Brookfield, 1981, 1983).

More is known about what and who assists in learning than how they assist in SDL. The literature implies that the context of learning may influence the involvement of assistants in SDL activities and this study will explore this theme. Further insights regarding SDL and assistants are discussed in Section 2.4. The next subsection explores the last component of SDL this study investigates: evaluation.
2.3.4 Evaluation and SDL

There has been little written on how adult learners evaluate their SDL (Jarvis, 1987) and Tough's research barely considers evaluation. Brookfield (1981b, p. 25) defined evaluation as a "regular measurement of progress" according to prior specified standards. Only Mills' (1989) study considers evaluation in terms of Tough's research, and finds retired couples evaluate their SDL by appraising the degree of achievement with the goals that had prompted them to start their projects.

Research on evaluation reveals that learners recall the evaluation of their activities from an objective perspective more often than a subjective perspective (Brookfield, 1981b; Mills, 1989). Brookfield (1981b, p. 25) reasons that it is easier for learners to estimate their own expertise in relation to that revealed by others than as a "gradual integration of knowledge into a whole." Brookfield (1981b) explains the subjective evaluation perspective is when learners' recall a growing belief about their own knowledge and ability. In addition, Brookfield (1981b, 1983) explains learners' objective evaluation perspective of their SDL. Learners described direct comparisons of expertise with other learners (Brookfield, 1981b, 1983) either by actively enlisting their assistance in the measuring process (Peters & Gordon, 1974), or passively, through a "competitive element" (Elsey, 1974, p. 393) which encourages peer recognition of SDL activity. These studies support Jarvis's claim that "the nature of evaluation within learning itself is social" (Jarvis, 1987, p. 122) and Cafferella and O'Donnell's (1988) claim that social interaction affects personal judgements of SDL.

There appears to be very little research about evaluation and SDL. However, the studies reviewed here show a tendency by learners to relate their SDL to goals or the expertise of other people rather than to personal change within themselves. This study will explore what subjects remember from their activities, as well as how they evaluated their activities, to reveal how subjects describe the outcomes of their learning.
This section on the new perspectives of the SDL concept has explained the fundamental changes that the concept has experienced in the last decade. Four components of SDL (incentives, planning, assistance, and evaluation) were discussed to determine the nature of SDL activities. In exploring these components, the influence of the social context on adult learners has also been alluded to. The following section expands this theme by describing two social contexts of SDL: heterosexual cohabitation, and learners' social networks.

2.4 Broader Social Contexts and SDL

There is general agreement that the social context where SDL occurs should undergo further investigation (Brockett, 1985; Brookfield, 1983, 1984, 1985b; Cafferella & O'Donnell, 1987; Whitmore et al., 1987). This section reviews the literature which associates SDL with heterosexual cohabitation and learners' social networks in an effort to extend beyond the individual perspective of SDL research.

2.4.1 Heterosexual Cohabitation and SDL

Brookfield (1987) stated that despite the great significance given to the forming and living within relationships, adult educators have overlooked this fact in adult learning. Although Peters and Gordon (1974) compared the SDL activities of married individuals to single people few studies have investigated SDL and intimate relationships. This is despite a statement 30 years ago by Cyril Houle implying an important connection: "I believe that, no matter how intensely an individual may want to learn, he or she usually does not do so very actively if the marriage partner objects" Houle (1961, pp. 42-43) in Tough (1967, p. 29).

Brookfield (1987) considers adult learning within intimate relationships. The learning he discusses is not the task oriented, problem solving nature which typifies SDL but is focused on how relationships between partners and family members induce significant personal change.
within an individual through critical reflectivity. Additionally, little is known about the learning environment of heterosexual cohabitation. Merriam and Clark (1991, p. 17) note the lack of research regarding SDL and the "interaction in a family business" and "work at home situation." Both these situations exist in the lifestyle of farming couples.

Only one study has described SDL activity and cohabitation. Mills (1989) focused on six retired couples living in a suburb on the outskirts of Christchurch city, New Zealand. The interesting point of this study was that couples shared projects, averaging 4.2 for each couple and representing 22% of the total number of recorded projects. Retired couples may have more in common with farming couples than other urban samples because partners may spend more time together and create more opportunities to share SDL activities.

There is a gap in adult education research regarding SDL and cohabitation. This study can contribute to SDL by exploring and describing the circumstances which encourage partners to share SDL activities. The next subsection extends beyond intimate relationships to social relationships within a local community.

2.4.2 Learner Social Networks and SDL

The four studies which have investigated learner social networks and SDL have explored two different contexts: community groups and social networks. These four studies provide an indication of how people interact and learn through informal social contact.

Brookfield (1981b), Elsey (1974), and Whitmore et al., (1987) related SDL to social networks within organised community groups. Whitmore et al., (1987) explored what rural people learnt from participating in community groups and proposed basic factors considered salient to both learning and participation. One factor, the importance of shared and experiential learning by participants, reinforces the notion that community groups are an abundant source
of informal assistants for SDL. Both Brookfield (1981b) and Elsey (1974) described the social interaction occurring within community groups as an important part of learning. Elsey (1974) noted voluntary organisations provide the opportunity for SDL to occur whereas Brookfield (1981b, p. 20) described a "fellowship of learning" where social groups encourage an unselfish sharing of knowledge between would be competitors.

Finally, Fingeret (1983) investigated how illiterates used their social networks to compensate for their disability. The more trust illiterates had in particular members of their network, the more sensitive the information about their lives they shared. Unlike Brookfield’s (1981b) fellowship of learning, the social networks of illiterates operated on a principle of reciprocity for services associated with SDL.

The literature suggests exchanges of information in social networks is influenced by the type of social situation and the level of trust between network members. Earlier, section 2.3.3 identified that context of learning may influence involvement of assistants in SDL. By investigating the social networks of farming people some of the personal characteristics which influences the use of local assistants and SDL activity can be determined.

This section on the broader social context of SDL has revealed a notable lack of research in this area, especially on heterosexual cohabitation and learner social networks. As SDL seldom occurs in isolation, informal social linkages would appear to have an important role in the SDL activities of people. Further, farming couples live in an environment that encourages a greater reliance on both these social contexts than might be expected of urban couples and that reliance may have an important bearing on SDL.
2.5 Conclusion

This chapter reviews the concept of SDL, beginning with a summary of the nature and criticism of Tough's learning project research. Tough's contribution to SDL involved descriptive statistics to document the nature and frequency of SDL. The nature of the SDL concept has been transformed since Tough's original contributions so that it now embraces new concepts and research methods. In light of this transformation, four components of SDL were discussed to identify important research issues. Those key components are: incentives, planning, assistance, and evaluation. Also examined were the social contexts of SDL, including heterosexual cohabitation and learner social networks.

This review has highlighted at least two ways this study can contribute to the literature of SDL. First, by examining the four components of SDL activities (incentive, planning, assistance, and evaluation) the nature of SDL conducted by each member of a farming couple can be described. By focusing on farming couples it will be possible to examine SDL in a natural setting involving two people, unlike many other studies that have focused on individuals. Second, by exploring heterosexual cohabitation and learner social networks, the impact of social interaction on SDL can be described. Results from this theme of the research would address the dearth of research on SDL and its social context. Before going on to address these issues, the methods used to obtain the results are described in detail.
Chapter Three

METHOD

3.1 Introduction

The previous chapter reviewed the literature on self-directed learning (SDL) and proposed how this study would contribute to that literature by responding to some important areas that have not received sufficient research attention. This chapter describes the approach used in this study to investigate SDL activities of farming couples. It is separated into six main sections. The first section briefly explains the qualitative research paradigm to remind us of its general characteristics. The second section describes the study area. The third section reviews sampling issues by explaining the sampling technique, the definition of a farming couple and how the sample was generated. The fourth section explains issues concerning the interviewing procedure, the fifth section describes the questions used in this study, and the sixth section explains the approach taken to analyze the data.

3.2 Qualitative Research

Section 2.3 showed that some modern proponents of SDL research argued the case that the concept of SDL needed to be studied with qualitative research methods. For this study it was decided to employ a qualitative approach to develop an understanding of participants' views about SDL. The following paragraphs outline the essential points of qualitative research.

Qualitative research is appropriate when the subject matter is intertwined with people's lives and
when discovery and understanding are sought (Merriam & Clark, 1993). The work of Firestone (1987, pp. 16-17) provides an insight into qualitative research. Grounded in the phenomenological paradigm, the reality of qualitative research "is socially constructed through individual or collective definitions of situations" [original italics]. The purpose of qualitative research is "understanding [original italics] social phenomenon from actors' perspectives through participation in the life of those actors."

The act of asking people for their interpretations endorses their activities as relevant and important (Miles & Huberman, 1984). Further, individual perceptions of their environment reveal linkages between themselves and the environment which are significant. The significance of peoples' perceptions is embodied in the phrases expressed by individuals, and the richness of peoples accounts. This is a strength of qualitative research. Participants are given a higher degree of freedom when responding to questions compared to quantitative research. Rather than proving the adequacy of hypotheses, research can focus on describing activity.

The nature of the methods used in this study are more fully explained in Sections 3.4 - 3.7. Before detailing the procedures used in this study, the following section describes the area where this study took place.

### 3.3 Description of the Study Area

To examine adult learning in its natural form, the subjects for research had to be relatively isolated from professional educational facilities, yet within a convenient distance of Christchurch city. Further, it needed to be small so that members of the community would have SDL activities mainly involving other members of the community, not trained education professionals. The Waiau community meets all of these criteria.

The Waiau community is located within the Hurunui District in the province of North Canterbury in the South Island of New Zealand (Figure 1). It extends from the Conway River in the north, to
Hurunui District of
North Canterbury

Figure 1
Waiiau Community Boundary, North Canterbury, New Zealand
(Courtesy of Department of Survey and Land Information)
Scale 1: 500,000
the [old] Cheviot County boundary in the east, to the Amuri range in the west, and "includes some farms fronting the south bank of the Waiau River" (Pettigrew & Pettigrew, 1989, p. 1). The inland road from Culverden to Kaikoura (Provincial State Highway 70) runs through the area. The area is farmed extensively with sheep and cattle, and experiences hot, dry summers and cold, wet winters.

Of the approximately 200 households in the area, 100 are in the Waiau township (Pettigrew and Pettigrew, 1989). The Waiau township is located on the junction of the Mason and Waiau Rivers at the northeast end of the Amuri Plain, approximately 120 kilometres from Christchurch. The township has limited government services, a primary school and a part-time post office. There are no banking facilities, no public transport services, police station or doctor's surgery (Pettigrew, 1993). All non-essential community services involve local volunteers. The Waiau community has over 40 permanent businesses and over 40 community groups and clubs which provide a variety of social functions (Waiau Citizen Association Booklet, 1994).

The nearest neighbouring town, Culverden, is 20 kilometres southwest of Waiau township. Culverden is larger, and services traffic between Christchurch and Lewis Pass on National State Highway Seven. Culverden increases the number of services available to Waiau people. This town has the local Area High School, the veterinary clinic, ambulance and police services, stock and station supply stores, and is a service centre for the Hurunui District Council. Halfway between Waiau and Culverden is Rotherham. This is where the local area doctor lives.

In developing an overall picture of the sample, the above description of the research community provides some idea of the lifestyle circumstances influencing the SDL activities of participants. Once deciding on the Waiau community as the site of research, the next phase involved gaining access to this community and generating a sample.
3.4 Snowball Sampling, Definition and Access

To pursue a qualitative approach, an alternative to random sampling was employed, namely the snowball sampling technique. "This method yields a study sample through referrals made among people who share or know of others who possess some characteristics that are of research interest" (Biernacki & Waldorf, 1981, p. 141). For a snowball sample, the first couple contacted nominates another couple for interviewing, who then nominate another couple. This procedure continues until patterns emerge in the data gathered. Social organisation and adult learning have an inextricable linkage (Lewis, 1979), a point which Section 2.4 has already disclosed. By using this technique, this study presupposes that social networks are used for learning purposes and that the nomination of participants reflects this presupposition. Snowball sampling traces the social organisation within a community, identifying individuals and the relationships among individuals (Coleman, 1958).

Recognising the capacity of local people to nominate participants has two advantages: it encourages greater involvement in the study by the sample, and offers the option for the researcher to screen participants for their suitability to the study. However, because the technique employs social networks, it could not be assumed that those in the sample represented the Waiau farming community.

An important part of the sampling technique was developing an appropriate definition of a farming couple. In this study a farming couple comprises a man and a woman who work and live on a rural farming property. This definition differs from the rural and agricultural populations reviewed in Chapter Two which typically had different locations for their working and home lives. These farming couples had partners who;

a) were cohabiting;
b) were resident on the land;
c) were producing from the land;
d) had at least five years agricultural experience between them; and
e) had farm production as their primary source of income.
In using the snowball technique within a farming community, this study assumed first, that nominating couples would readily identify nominees who were also farmers; and second, that the social networks existing in a farming community were of a stable nature. The incorporation of both assumptions increased the efficiency of the snowball technique by allowing the entire sample to be organised and contacted before conducting the interviews.

To initiate the snowballing technique, a list of North Canterbury farmers was provided by the Farm and Horticultural Management Department of Lincoln University. This list included farms visited by staff and students on field trips. One farming couple was from the Waiau community and this couple was contacted by telephone in November 1993 and asked to participate in the study. They agreed and started the chain of referral.

To maximise the efficiency of the snowballing technique, each subsequent couple was advised that the choice to participate required nominating another farming couple as defined above. Only one couple declined and the couple which nominated them (the couple from the Lincoln University list) was asked for another nominee. The influence of the initial refusal by a couple at the start of the nomination chain was considered minimal for two reasons. First, farming people are a relatively homogenous group and second, the exploratory nature of this study did not require an exhaustive account of the social network. Additionally, both reasons were why only 12 couples were considered adequate for this study.

This section has explained the technique this study used to generate a sample. Combining the snowballing technique with the definition of a farming couple provided an alternative means to random sampling by gathering participants of a very specific description. However, the method involved several presuppositions about learning and social networks and the abilities of local people when nominating other community members. Only 12 couples were used because of the exploratory nature of this study. This section has also described how the participants were initially contacted and how the sample was generated. The procedures used to gather information about SDL activities and behaviour of the sample are explained in the following section.
3.5 Interviewing Procedures

This section gives attention to data gathering procedures, including: the use of diaries as consciousness-raising tools regarding everyday SDL activities; the interviewing protocol; and the procedures of the interviews, especially the techniques used in the main interview.

Once couples agreed, over the telephone, to participate in the study they were sent a letter to explain the purpose of the study and to provide a consent form for themselves and their partners to sign agreeing to be studied. Couples were informed of an introductory and a main interview with the possibility of a third follow-up interview later in the year of 1994. Couples were telephoned within a week of sending the letter in order to arrange the first interview at a time of their choice. All interviews were conducted in each couple’s home.

The introductory letter also contained a two month diary for each partner to record SDL activities on a weekly basis before the main interview. Instructions explained how to record details about SDL activities. (A copy of these instructions is included in Appendix One.) The primary purpose of the diaries was to raise conscious awareness of SDL activities during the two month period between the introductory letter and the main interviews. However, the data within these dairies was not of a nature to assist this study and only two participants kept their diaries with any regularity.

Because the couples were all farmers, it was assumed that partners shared SDL activities. All previous studies had only interviewed individuals. Interviewing partners together acknowledged the shared nature of SDL activity in farming households. It also helped offset the use of pre-arranged questionnaires during the three interviews, in that if one partner was being asked a question, the other partner could be used by the researcher to interpret learning behaviour by explaining and describing a situation from their perspective. Using the other partner as a secondary interpreter of SDL activity utilised the strength of the couple’s relationship and their joint history to clarify and generate discussion about the questions asked and the responses of their partner. However, interviewing partners together also assumed that any discussion generated during the interview
involved only activities that partners wanted to reveal to each other.

Couples in this study underwent three interviews: introductory, main, and follow-up, held during December 1993, February 1994, and October 1994. Copies of each of the interview questionnaires are contained in Appendix Two. The questions for all three interviews were pre-arranged. This format assisted partners to focus their responses on their SDL activities. Another advantage was that pre-arranged questions were an efficient means of using interviewees' time (Patton, 1980). Unlike the introductory and follow-up interviews, the pre-arranged questions for the main interview were derived from earlier research and resulted in a questionnaire that was more structured than Tough's (1967) original. Also the nature of questioning changed during the main interview. Questions about SDL components required partners to talk about all their activities (individual and joint). Questions about social interactions involved partners choosing SDL activities to provide examples in their responses. The interviewing procedure became slightly more conversational at this stage and similar in nature to the approaches in the introductory and follow-up interviews.

In line with the qualitative approach used in this study, Tough's technique of vigorously prompting was modified by incorporating a policy of rephrasing the original question (e.g., "Why did your SDL activity begin?" was rephrased to: "What initiated the activity?", or "How did the activity start?"). Prompting was barely required during the main interviews.

All three interviews were conducted with both the researcher and the couple sitting around one end of the kitchen table. For the main interviews, the only interviews tape recorded and transcribed, this enabled the microphone of a tape recorder to be centrally placed amongst all three people. Partners were only apprehensive initially about the tape recorder. Neither the introductory or follow-up interviews were recorded and they relied on note taking.

To assist in recording the main interview, it was decided to use a cross referencing grid (adapted from Underwood & Salmon, 1981) to associate the interview questions with partners' SDL activities. This grid laid out the key questions for any number of SDL activities. The grid had two
purposes: the cells provided spaces for brief note taking, provided the researcher with a record during the interview; and gave interviewees a sense of the interview’s duration and progression.

This section has explained aspects of the data gathering procedures used in this study. It has revealed how sample members were contacted and that diaries were used as a consciousness raising tool regarding SDL activities. Partners were interviewed together to encourage discussion and provide greater opportunity to record participant interpretations and perceptions. The main interview modified Tough’s prompting technique by rephrasing questions to reduce over stating of SDL activities. The main interviews were tape recorded and used a grid for jotting notes during the interview. From understanding how data was gathered, the next section concentrates on the different focal issues of each of the three interviews.

3.6 Key Questions

In this section, the purpose and nature of the key questions used in each interview are explained. Figure 2 shows the main topics examined in each interview.

The introductory interviews had two functions: first, it clarified any concerns learners had after reading the introductory letter about SDL activities and their role in this study. Second, it examined the social linkages that became apparent during the process of nomination. The second function helped clarify characteristics of the sample by determining the basis for participant nomination. The basis of nomination would reflect how couples perceived each other socially, identifying social criteria which couples used to nominated each other. The social criteria may also differentiate the SDL activities they undertake compared to other community members.

Six questions were asked of each couple during this first interview. The first two questions inquired about the relationship a couple had with the couples who nominated them. This was followed by three questions focusing on the reasons for nominating a subsequent couple and their relationship
with that couple. The last question probed whether another couple had been considered for nomination to initiate a discussion about why they were not nominated.

**Figure 2**

**Relationship Between Interviews and Interview Topics**

Most of the data was collected during the main interviews, including the sample description data tabulated in Appendix Four. The function of these interviews included identifying and investigating the SDL activities partners had undertaken over the past 12 months and probing the learning relationships between cohabiting partners and community involvement in partners’ activities. The probing of learning behaviour and perceptions was to provide issues to be explored in the follow-up interview.

The main interview consisted of 15 questions separated into two sections: the replicated section and the qualitative section (Figure 2). The replicated section asked closed-ended questions about learning activities to replicate questions asked in other studies. However, upon the later realisation of the contrasting nature of previous studies, data from the majority of this section were disregarded. Only data concerning the time partners spent learning has been used in the study and is presented
in a table in Appendix Three to assist illustrating gender differences regarding SDL.

The qualitative section was separated into three parts: key SDL components; shared SDL; and social networks and SDL. The questions on the key SDL components were to investigate the initiation and process of SDL activities. One question investigated the initiation of SDL activities. Two questions investigated the nature of planning of learning, one question asked how partners planned their activities and the second asked what influenced the planning of their learning. To investigate assistants, partners were asked who or what assisted in their activities. Evaluation of learning involved two questions, how did partners evaluate their learning and what benefits did they recall from their activities.

The last two parts of the qualitative section pursued descriptions of the SDL partners share and social networks and SDL. In focusing on the interaction between cohabiting partners, one question probed partners’ motivation to share SDL activities and another on how partners coordinated their shared activities. Two further questions focused on the involvement of other community members in the SDL activities of partners. In particular, the circumstances which encouraged the involvement of other locals and how locals assisted in their SDL activities.

The follow-up interviews focused on issues which emerged from the examination of the responses to questions on shared SDL activities and social networks, including issues about the interaction between cohabiting partners and shared SDL activities. Four questions focused on the learning behaviour and circumstances of cohabiting partners. Partners were asked whether they would contribute to a partner’s activity, whether they did their shared and individual activities differently, whether they noticed any personal change about the way they conducted their learning, and whether living on a farm influenced these changes. Two other questions probed learning relationships partners had with the community. One question focused on the influence of nominating couples on the SDL activities of the interviewed couple. The other question probed for the characteristics of an influential local learning assistant.
This section has summarised the questions asked in the three interviews. The introductory interviews focused on the social linkages between nominating couples. The main interviews investigated SDL activities and probed the learning behaviour of cohabiting partners. Responses about learning behaviour provided questions for the follow-up interviews. The following section explains the analysis of the data from all three interviews.

3.7 Analysis

The interview data was separated into two separate groups: the key SDL components part of the main interview and the rest of the data. This reflected the two perspectives of SDL this study investigated: the individual perspective involved the probing of specific SDL components, and the rest of the study investigated the social context to explain the circumstances in which these activities occurred. To analyze descriptions of the key SDL components, partners’ responses were aligned with the components investigated: incentive, benefits, assistance, influential factors, and evaluation. Analysing partners’ responses about key SDL components involved scanning transcripts for statements of behaviours, actions, and events which summarised a major theme. This theme was then used to categorise the response. The themes of responses were further collated into groups which identified similar patterns. This process relied on the researcher’s interpretation of a linkage of one or more themes which characterised partners’ descriptions of their SDL activities. The similarity categorising each group of themes became the label used to identify the group.

The analysis of other data were simply cross referenced with questions asked to highlight trends within the sample. In particular, common phrases along with explanations of actions, behaviours, or events were noted and themes developed. The themes are illustrated with common or selected phrases, or descriptions of partner’s explanations.

The data analysis provided the basis for the emergence of ideas about their pattern and meaning. The analysis involved the development of themes using common phrases and descriptive explanations from partners. Analysis of the key SDL components imitated Tough’s method with
the use of frequency counts to illustrate the extent of emergent findings whereas the social perspective relied least on frequencies and more on developing concepts.

3.8 Conclusion

Essentially this chapter has described the qualitative approach to the SDL research used in this study. Despite the use of pre-arranged questions in this study, "the fundamental principle of qualitative interviewing is to provide a framework within which respondents can express their own understanding in their own terms" (Patton, 1980, p. 252) [original italics]. The method has allowed this principle to be used by paying attention to couples' views of, and experiences about, SDL. Adaptations to the traditional SDL method included the use of: multiple interviews, separating different aspects of data for investigation; diaries as consciousness raising tools; interviewing partners together; and rephrasing questions instead of vigorous prompting.

Other adaptations included the use of the snowballing technique to generate the sample of 12 couples. In addition, investigating the nomination criteria for social criteria can show how these couples perceive each other socially and what bearing this had on their SDL. Finally, the analysis of the data did not involve pre-coded categories but was influenced by the individual and social aspects of SDL which this study investigated. The following chapter presents the findings which emerged using the above techniques.
Chapter Four

FINDINGS

4.1 Introduction

The structure of this chapter is modelled on the sequence of open-ended questions from the main interview and is divided into three main sections: Section 4.2 covers findings related to individual-level aspects of self-directed learning (SDL) by focusing on specific components of all the SDL activities conducted by partners; Sections 4.3 and 4.4 cover the social-level aspects of SDL of this study. Section 4.3 focuses on the shared SDL of partners and introduces the notion of ownership and 'learning domains', and Section 4.4 investigates how social networks contribute to SDL and how social interaction determines community perceptions of partners.

In accordance with the main interview, the first section presents the findings of the key SDL components. These findings were derived from focusing on the SDL activities.

4.2 Key SDL Components

This section focuses on partner's descriptions of the 165 SDL activities they engaged in over a 12 month period prior to the main interview. This section has five subsections which examine five key SDL components: incentives, benefits, assistance, resource and time factors, and evaluation. Some of these components do not correspond with those identified in Chapter Two. However, they provided greater depth for investigating SDL activities than previous studies.
4.2.1 SDL Incentives

The data on SDL incentives were analyzed to describe the circumstances which triggered a SDL activity. Partners were asked how their SDL activities had started. Their responses were grouped into three categories of incentive: the social environment, the physical environment, and personal initiatives. Table 1 presents the frequencies of each category, showing that most activities were a reaction to the social or physical environment rather than described as acts of personal initiative.

Table 1

The Frequencies of SDL Incentives

<table>
<thead>
<tr>
<th>SDL Incentive</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Environment</td>
<td>78</td>
</tr>
<tr>
<td>Physical Environment</td>
<td>50</td>
</tr>
<tr>
<td>Personal Initiative</td>
<td>~165</td>
</tr>
</tbody>
</table>

Social Environment

The social environment triggered SDL activities through social encounters. Social encounters were of two types: household (partner, parents, children, siblings) and acquaintances (neighbours, professionals, friends).

Household incentives were almost evenly divided between partners (one of the partners) and family (other immediate family members). The definition of household was widened to include activities stimulated by other close family members because some couples were working closely with farming parents and siblings regarding business and lifestyle.

The existence of an intimate relationship between partners managing a household, and the devotion and commitment to it, stimulated partner activities. Examples of partner activities included: maintaining finance and investment portfolios, starting a family, managing future security for
retirement, and serving each other's interests.

One example came from Couple G. The husband described how his partner's interest resulted in his playing tennis: "[My partner] was involved. She used to be an active tennis player [before] coming up here so I just sort of ended up going along." Couple H discussed how the husband's golf activity started. The man said: "[My partner] encouraged it." His partner replied: "I felt he needed to. Seven days a week on the farm, he needed some form of R and R" (rest and recreation).

Family activities included the responsibilities of parenthood, and socialising with immediate family members. The circumstance of a family member stimulated several activities for Couple J. The husband explained how his family's circumstances had generated a number of SDL activities in the past year. He explained the New Zealand Government's policy of means testing income of parents of tertiary students. Their daughter was starting university and that stimulated a number of alternative income activities to avoid means testing:

"See, the crux of the whole thing is in order to get our kids through varsity, we've got to have a low income. We can't have any money for spending. So what we do is raise chooks, pigs, turkeys and things, which increases our money for spending that doesn't go through the farm."

Other family activities from other couples included moderating a difficult divorce for a family member and dividing the family farm.

Acquaintances were people other than family who stimulated SDL activities. However, it was the manner in which activities were stimulated by friends and neighbours that this researcher found interesting, especially concerning local community service activities.

The incentive for some activities were a reaction to informal social encounters. Many of these encounters involved acquaintances who introduced new ideas for the learner to pursue, or removed barriers, and consequently offered an alternative or new direction of activity. These encounters were often perceived by partners as serendipitous opportunities.
An example came from Couple K. The man explained the start of his cattle competition venture: “I ran into a farm consultant in Waiau who said to me did I think we would qualify [preconditions for the contest] and I said, yes. So he sent me the papers and I filled them out.” Another example came from Couple C. The man explained what initiated the swapping land with his neighbour: “The opportunity was put to us to exchange a bit of land and we’ve been after this piece of land for years so it didn’t take too much [discussion] to make up our minds.” One activity was prompted from a written communication. Because the activity was a reaction to a social interaction it was categorised as a social encounter. The woman from Couple F was challenged by circumstances she couldn’t understand: “We got a form from the Inland Revenue Department . . . and I couldn’t work out how they had derived their calculations.”

When partners participated in organised groups, whether interest or hobby, community or regional organisations, their SDL activities were often stimulated by volunteering, being nominated or being "co-opted." One of the most outstanding features of the interviews was how men described being co-opted into a local community service. The man from Couple H described how he became the school treasurer: “I was co-opted, pushed into it when the previous treasurer had his farm on the market.” The man from Couple K on becoming the rugby club’s Vice President: “Twisting my arm. I’ve been on the committee for a wee while now and there is not much interest in it. I just got voted into it really.” The man from Couple J explained how he became the golf club’s treasurer: “Dragged in sort of thing I suppose you could say.”

Men gave the impression they were coerced into accepting responsibility for community and social group positions. Women appeared to accept community leadership and management roles more readily and seldom expressed an attitude of being compelled into community responsibility. The attitudes of men to community responsibilities indicated a difference in perceptions of this particular form of acquaintance stimuli compared to women. The difference in attitude illustrated a concept developed further in Section 4.3 - learning domains.
Physical Environmental

The physical environment triggered SDL activities through non-human incidents. Non-human incidents referred to the condition of farm or household assets, and the effects of climate or season. The SDL activity became an attempt to address the incident, whether viewed as a problem or an opportunity.

An example of how a non-human incident triggered a SDL activity came from the man from Couple A. He explained why he was looking for a new motorbike: "The old bike is tired and it's time to get a new one." Another example is with winter frosts which encouraged Couple J to build a new garage. The man explained how the activity started: "Couldn't start the car in the mornings ... we didn't have any storage sheds over here [near the new house] ... we had to have a garage to put the cars in."

The man from Couple D explained the physical circumstances which led to an activity involving cattle. They had more grass because of the favourable season and bought cattle because they were reasonably priced: "It was just that cattle were at a reasonable price and I had some money and we had some extra feed." In this case, the physical environment provided the opportunity for the activity.

The man from Couple I explained why he was interested in buying a silage wagon. Problems with flushing ewes\(^1\) in dry autumns prompted the idea to use silage: "[It was the] dry autumns we went into. Last year's silage was tried as an experiment, just to get through those dry autumns. [We wanted] flushing food ... of good quality." Their silage wagon venture grew out of the experiment. They wanted their own machine to continue the practice.

Others, like the man from Couple L, wanted formal training. He went to a two day university course on shelterbelts and cropping because of the problems on his farm: "The trees were falling

\(^1\) A term which means feeding stock well before mating.
over here and I wanted to learn more information on what my problem was and how to overcome it.”

All the activities reviewed under social and physical environment were stimulated by the learner’s perception of an incident in their social or physical environment. The incentive for each SDL activity was attributed to physical or social conditions which necessitated or provided an opportunity for the activity. In the next heading, responses categorised as personal initiative were not triggered by external prompts but by the individuals themselves.

**Personal Initiative**

To find examples of personal initiative required scanning responses for “I” statements. These indicated that the incentive originated from within the individual rather than reacting to external stimuli. These activities were prompted by the learner’s interest or doubt about their own ability regarding a particular situation. The majority of activities dealt with some form of interest in a topic, either as a challenge or to improve or occupy themselves in some way.

The woman from Couple E revealed a longing to start her own dressmaking business: “That’s something I’ve always wanted to do really . . . always been looking for the opportunity to do it.”

The woman from Couple B enrolled in an educational course to improve her interior decorating abilities: “The course was for me to do things to the house, gain confidence and skills to do that.”

An example of a SDL incentive stemming from childhood came from the man from Couple F. He explained the prompting of his racing car activity: “When I was a little kid I saw the particular car . . . and you know it fascinated me ever since.” Only two activities were referenced in this manner.

Section 4.2.1 has showed that SDL activities were often reactions to partners’ social and physical environments. Most activities initiated from interacting with the farm, family and friends. Activities triggered by personal initiative were less frequent. These findings suggest most SDL
incentives of partners were stimulated by external realities rather than inner feelings.

4.2.2 The Benefits of SDL Activities

The benefits of SDL activities were achievements partners recalled as a result of their SDL activity. Partners were asked how the activity had helped in achieving a goal and mentioned three categories: unanticipated insights, personal skills and unsure. All three categories were evidence of benefits. However, for nearly a third of activities partners spoke of how they managed their SDL activities to achieve their goal. These were seen as benefits and were labelled learning directives. Table 2 presents the frequencies for each category, revealing that often partners recalled benefits that were unanticipated when initiating SDL activities.

Unanticipated Insights

Unanticipated insights came from responses where partners recalled achievements that contrasted with the stimuli of activity. Partners described the purpose of their activities at the beginning of the main interview. Unanticipated insights did not relate to the purpose of developing a skill or assisting in a decision regarding the incentive of the activity. These responses represented other benefits that had developed concurrently during the progression of the activity.

Table 2

The Frequencies of Benefits from SDL Activities

<table>
<thead>
<tr>
<th>Benefits from SDL Activities</th>
<th>Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unanticipated Insights</td>
<td>70</td>
</tr>
<tr>
<td>Learning Directives</td>
<td>51</td>
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<tr>
<td>Personal Skills</td>
<td>35</td>
</tr>
<tr>
<td>Unsure</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>165</td>
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38
For example, Couple B summarised their effort to turn a farm cottage into a farm stay holiday house. The man said: “We did learn about the structure of the farm-stay organisation. It was sort of involving the tourist industry in New Zealand.” His partner followed with: “We learnt quite a lot about what people expect when they go on holiday, when they rent a house [hospitality expectations].” Their statements revealed unanticipated insights about the organisation itself and what standards clients expected with this type of accommodation. The couple found there was more to the industry than just offering a house for rental.

Another example of an unanticipated insight came from Couple C. The woman recalled the benefit associated with organising a christening: “We had a lot of discussions about organising all the food and just getting the things, ringing people, and I guess it took a lot longer than we realised. That’s what we did learn.” The woman revealed an unanticipated insight about organising a social occasion of this size, rather than just the religious significance.

Three responses in particular illustrated personal observations about self change that were unanticipated at the outset of the SDL activity. The man from Couple H was learning more from playing golf than just the game itself. The following exchange illustrates a developing awareness about personal development. The man said: “I’ve learned some of the theory behind it by reading and coaching,” and his partner added: “But you have also learned that having relaxation helps with the other part of your life, the farming part,” to which he replied: “Yeah, that’s true, you’ve got to get a balanced life.” Although his golf activity was developing knowledge and skills, both partners were recognising the benefits in terms of relaxation.

Two examples came from the woman from Couple K. The first involved an insight about her partner during a time when the building of their new house coincided with the woman’s pregnancy. The fact he supervised the construction of the house while she was ill genuinely surprised her: “I was very surprised about [my partner] because I didn’t think he was going to take so much interest.” The second example described what she had gained from the encounters with her book discussion group.
"Every time I realised I learned a lot about other people and New Zealand society . . . basically, my understanding of people is that we're all the same . . . but sometimes I come home and think we aren't really the same, we see things differently and I do realise that I come from a different society . . . in the beginning when you come to a new country everything is new and then you start to pick up the differences."

The unanticipated insights from the woman from Couple K concerned a changing perception of her partner and the recognition through cross-cultural of differences between other people in Waiau and herself. The next two subsections describe learning directives and personal skills gained from SDL.

**Learning Directives**

Learning directives embraced information generated by the activity which prompted judgements about the current suitability of the goal, whether it should be changed, or whether the goal should terminate, and of the resources needed to achieve a goal. These were considered benefits because they represented emerging insights from SDL activities while they were being engaged by partners. These observations were evidence of partners directing their learning to reach the goal they desired. Responses were separated into two types of information: first, goal appraisal for deciding whether or not to persist with a goal, and second, if persisting with a goal, distinguishing the resources (often non-human tools, machinery or materials) for possible use in SDL activities to achieve the goal.

Goal appraisal involved examining new insights which had emerged since undertaking the activity. The result was a decision about whether to persist with the goal. Responses were scanned for descriptions of evaluating a goal and deciding whether to persevere with it.

Couple C were deciding whether or not to sell land. The man talked about doing "homework" when making a decision about selling a property: "We looked into it and found out we'd still be better off even though it had escalated in value." They decided not to sell their land because of the results of their activity. The man from Couple J explained their bobby calf venture was an experiment:
“It was a pilot scheme really. It was a trial thing.” They would continue with the activity but make adjustments for next season. The man from Couple I commented on his pasture experiments of the previous year in his decision to buy a direct seed drill: “The results from last year’s experiments worked.” In all three examples the benefit of the activity resulted in a judgement about whether to persist with the original goal, i.e the justifying of not selling land; the justifying of continuing with bobby calves; the justifying of buying a new seed drill.

The second learning directive concerned the act of distinguishing resources from one another for use in SDL. This act allowed a partner to judge their suitability for SDL. The benefit was often a list of resources that could be used to persevere with the goal.

The man from Couple I listed several options for his silage wagon venture: “I learnt the price of new ones, and what second-hand ones were, and what we could hire ones for.” The woman from Couple B explained her options when house renovating: “Learning about the different quality of products, I think: different types of fabrics and surfaces and things you can use . . . , synthetic versus natural fabrics.” In both examples the benefit of the activity was the ability to choose resources to reach the goal desired.

**Personal Skills**

Personal skills described abilities partners had developed from their SDL activities which they interpreted as a benefit. Partners said that the activity had improved a skill, whether mental, physical or social.

The woman from Couple A provided an example of a mental gain. She used her goal to justify the management skills she was learning in assuming the farm "bookwork" from her father-in-law: “The more I’m learning about the bookwork from the accountant, how to cut corners, the more I’m saving the farm money.” The man from Couple K described a mental task associated with his partner’s role as a press secretary for the local netball club: “[My partner] wrote a report for ‘The Press,”
North Canterbury pages. We spent quite a bit of time working out how to word a description of
the game.” In both examples the benefit was the ability to undertake an intellectual task.

Physical skills involved practical activities. The man from Couple D summarised his new ability:
“Went from not being able . . . to being able to turn wood.” Another physical example came from
the man from Couple A regarding his landscaping activity: “By the time I finished, quite a few
hours later, I knew how to lay bricks.”

Social skills emerged in community service activities. The man from Couple L explained the social
skills he developed when involved with local rugby clubs: “You’re learning the different rules and
the problems associated with managing people, managing rugby teams.” The man from Couple E
explained the benefits from holding the position of Club Captain of the Waiau Tennis Club:
“[Finding out who are] the better players and who fits in best with everybody else, and [all] the
relationships.” Understanding about player relationships was an unanticipated insight to his role of
administering the club.

Unsure

The category of Unsure represented activities which lacked a tangible outcome for partners to
evaluate regarding their goal. For three activities partners said they would only know how
successful their SDL activity was when an outcome was produced sometime in the future. Another
six activities had produced nothing tangible in terms of skills, understanding or knowledge that
partners recognised as beneficial.

An example of an intangible SDL experience came from Couple C. It involved the cause of their
baby son’s skin rash. An intangible end point was cited as the reason no learning had taken place.
The woman stated:

“We didn’t really come up with an answer. So I did a lot of reading to try and find out
myself but it didn’t really come up. Like even the paediatrician didn’t really come up with
an answer. It is all a bit of a mystery.”

Both partners felt dissatisfied with their SDL because they still had no idea what caused their son’s rash.

Section 4.2.2 showed that the stated benefits from SDL were various personal skills and unanticipated insights. Personal skills were evidence of self change noticed by partners. However, in nearly half of the activities, partners revealed benefits that were unanticipated from the outset of the activity. This fact suggests that during many SDL activities partners develop appreciations about themselves their partners and other community members, as well as the content of their activities. These were insights that were unforeseen upon initiating the activity. In addition, learning directives revealed how partners directed their SDL by appraising the suitability of their goal and evaluating the resources for achieving their goals. In these cases the benefit was information to the partners for them to decide whether to continue with their goal and what distinguished the resources they could use to achieve it.

4.2.3 Assistance in the Organising of SDL Activities

To examine Tough’s claim of pre-planning, the question relating to organising and planning of SDL was designed to find out how partners planned their SDL. Partners stated they did not sit down and pre-plan their SDL prior to engaging activities. Instead their responses focused on the social interactions in which they conducted their SDL. This observation refocused the scanning of transcripts for phrases that indicated how SDL was assisted. Three ways of engaging learning assistants occurred: consultation, facilitation, and cooperation. There were only five SDL activities out of 165 where no assistance was used. Table 3 presents the frequencies of each category showing the majority of assistance was by using consultation.
### Table 3

**The Frequencies of the Forms of Assistance**

<table>
<thead>
<tr>
<th>Form of Assistance</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation</td>
<td>116</td>
</tr>
<tr>
<td>Facilitation</td>
<td>30</td>
</tr>
<tr>
<td>Cooperation</td>
<td>14</td>
</tr>
<tr>
<td>No-Assistance</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>165</td>
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</tbody>
</table>

### Consultation

Consultation involved contacting people and asking for information and opinions about SDL activities. To focus more closely on the nature of consultation, statements were scanned for descriptions of where consultation took place. Consultation occurred in three social contexts: formal, non-formal and informal (see definitions next paragraphs). Each was separated by the degree of formality partners revealed in their descriptions of how they were assisted. The frequencies of the different types of consultation are presented in Table 4. For the 116 cases where consultation occurred the majority involved informal consultations. Often activities that involved formal and non-formal consultations also utilised informal consultations.

### Table 4

**The Frequencies of the Forms of Consultation**

<table>
<thead>
<tr>
<th>Form of Consultation</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal</td>
<td>108</td>
</tr>
<tr>
<td>Non-formal</td>
<td>22</td>
</tr>
<tr>
<td>Formal</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>143</td>
</tr>
</tbody>
</table>

Informal consultation involved any social encounters that were not officially arranged for any specific learning purpose: like Friday nights at the pub, or flying visits, or phone calls to other
people. An example of informal consultation came from the man from Couple F. He explained the planning for his car swapping venture: “I can’t say that I actually phoned up anyone but . . . any people I met . . . would talk to them about different cars, how theirs performed and what its strengths and weaknesses were.” The man from Couple E told of how planning for his hogget mating venture occurred: “I talked to [local drafter] in the pub every Friday night.” The woman from Couple D gave an explanation about planning SDL for her garden activity: “Actually most of it has been by other people really. Visiting other people and talking. We go around each other’s garden [friends] and talk about what we’re doing.” All three statements show the nature of assistance was often serendipitous.

Non-formal consultation involved attending larger social meetings and gatherings that were organised by other people. These included sports practices and various agricultural gatherings. An example of non-formal consultation came from the man from Couple G. He described tennis practice: “Been to two practices, which is not actually a practice. It’s just down and a hit around.” The man from Couple E went to a tree seminar: “[Partner] and I went down to a seminar on hardwood trees.”

Formal consultation required advanced appointments or visits for information and usually involved specific professional individuals. An example of formal consultation came from the man from Couple L. He outlined a meeting to solve his drainage problems: “The professional guy visited us and drew up a plan and explained what we would achieve.” Another example came from the man from Couple I. To keep everything legal when separating the family farming operation, the man felt professional guidance was needed in reaching their goal. He outlined some of the formal arrangements to separate the family farm: “We’ve actually contacted people, the likes of bank managers, farm advisors and accountants. So we sort of do it once. Do it properly really. Keeping it legal really.”.

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2 A sheep approximately one year old.

3 An agricultural professional (usually affiliated with a livestock company) who assesses and grades livestock for killing.
In focusing on the context of consultation, it was found only formal consultations encouraged any planning of SDL. The planning with informal and non-formal contexts involved serendipity on behalf of the partner. These were social occasions where circumstances allowed the discussion of the partner’s topic, but any planning of SDL was incidental to the context in which the activity occurred.

Although the majority of SDL involved taking advantage of social surroundings for assistance, there were two other forms of assistance categories which showed a greater deliberateness in planning SDL activities: facilitation and cooperation. Both categories involved activities where a particular event or person was instrumental in planning or organising the activity. Activities categorised as formal consultation did not have people with this level of influence on the activity.

Facilitation

Facilitation involved SDL situations where other people planned and organised a learning experience on the partner’s behalf. Facilitation differed to consultation noted above by involving a traditionally institutionalised approach in the form of adult or community education. The content of these SDL activities involved pre-planned outlines or instructions

Although partners could contribute to the planning process, to benefit from a facilitative situation, they had to choose what was useful to them. For example, the woman from Couple C described the organising associated with Plunket meetings: “We [the group members] don’t decide the topic [for the meeting] but we talk about a lot of other things... a lot of things are brought up.” The woman from Couple I described the planning of wood turning classes: “Initially we had to make a rolling pin and after that we could decide.” The man from Couple K explained a different perspective when describing the facilitation of the local farm discussion group: “You’ve got to take away from that day what would apply to you and think about it.”

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4 Plunket is a voluntary organisation concerned with monitoring the health and well being of newly born babies and their mothers.
Cooperation

Cooperation involved mutual planning by those involved in a partner's activity and was considered by partners to be shared between two parties. For example, professional scientists and farmers used each other's knowledge to design experiments on the farm. No one person appeared to dominate the planning situation. Planning in this manner encouraged a sequential nature to SDL activity. An example came from the man from Couple F who worked with an agricultural scientist on worm resistance: "We would sit down together and work out a timetable of what we hoped to do over the year." Another example came from the man from Couple C and his fertiliser venture: "We did it together. We sat down and worked out a plan of attack."

Section 4.2.3 has contributed to this research by showing that the pre-planning of SDL only occurred in facilitative and cooperative situations where professional education assistants provided or helped the partner to plan their activity. In the majority of cases pre-planning of this nature did not occur. Instead partners consulted other assistants, often opportunistically in an informal manner at the pub, by visiting, or through phone calls. The majority of SDL planning was anything but the pre-planned approach associated with facilitative and cooperative situations where timetables, instructions, or menus were organised prior to engaging SDL.

4.2.4 The Influence of Resources and Time on SDL Activities

To investigate what constrained SDL activities in a farming environment partners were asked what factors influenced the SDL activities they engaged in. Transcripts were scanned for circumstances or situations that shaped SDL activities. Responses were grouped into two categories: resource factors and time factors.

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5 The intestinal parasites infesting his stock were becoming resistant to the oral drenches he used to control them.
Resource Factors

Of the 165 SDL activities, 111 were influenced by resources. Resources influenced the course of action and the speed of progress in SDL activities. Further, resource factors influenced SDL activities in two ways: by their availability to the partner and their quantity when available. Money, in particular, illustrated how resources influenced SDL.

The availability factor concerned whether information, often stated in terms of people, tools and materials, was present when undertaking an activity. The absence of these resources often initiated alternative learning tasks by temporarily stopping or slowing the original activity. An example came from Couple J. The man did not know anybody locally to ask regarding his tree nursery venture: "I suppose there are people in the area [growing trees] . . . we don't know anybody that's got a nursery or propagating shed or anything." The woman from Couple I said the lack of tools and materials constrained their garden SDL activity: "[The] availability of tractor and chainsaw [on Sunday mornings]."

If resources were present, then the quantity factor influenced SDL activity. In many activities there was a relationship between the number of learning resources and the quality of the learning experience. An example came from the man from Couple C. They had used many different perspectives to clarify information about the value of their property:

"Talking to other people as to how much that sort of land was worth, was a matter of discussing it with people that had sold land . . . talking to our advisors again as to how much we could reasonably expect to ask for it."

Both partners felt satisfied about making their final decision because they had consulted many different people.

In another example, Couple A had their wool testing venture delayed for a year when a heavy snow fall reduced the number of stock for selection. The man remarked that the exercise would have been a waste of time because he did not have the numbers of stock in the appropriate condition. The woman from Couple K referred to the SDL activity of the local book discussion group. She
explained that her experience was more enjoyable when other group members understood the books and participated: "You have discussion nights for which you have to read and it's very annoying if people haven't prepared themselves because they just sit down and 'um' and 'ah.' I get very upset because it's something I'm interested in." In this example, the other participants in the group were 'quantities' that influenced an SDL activity.

Money, more than any other single resource, appeared to have a significant influence on SDL activity. Money and SDL were associated with 104 of the 165 activities. Partners were either generating or spending their own money or managing money for a community organisation. When discussing their own situation Couple B said their SDL activities were only carried out if the money was available. Their statement appeared to be representative of all the couples. The significance of this statement concerns the fact that nine couples had built or renovated their homes in the past year. This suggested two things: that farm profits had allowed farming couples to spend money on themselves over and above the farm, and that the number and type of home/family SDL activities over the past 12 months had changed from previous years.

**Time Factors**

This category involved factors that confined the SDL activity to a specific period of time. Of the 165 examples of SDL activities, 78 were influenced by time. There were three related factors; two concerning the physical environment (seasonal and biological time frames), and the third was bureaucratic deadlines.

Environmental factors influenced SDL by confining activities to seasonal and biological time frames. Seasonal variations in weather patterns influenced SDL activity by physically governing when, where, what and how SDL occurs. Many activities concerning the farm, garden or the exterior of the house needed to be completed before or during a particular season.

For example, the man from Couple I implied that the time of year constrained his SDL activity
which involved the purchase of a silage wagon: "It was done in the Autumn when we were feeding it out, really." The man from Couple G stated when they preferred to buy bobby calves. Buying calves was one in the spring and the autumn which confined a time for studying markets more closely. In another example, Couple A had two attempts to paint the roof of their house. In an exchange with his partner the man explained they had to wait until the spring to have it completed: "We left it too late to paint and so it had to be done [again]." His partner added: "That was before winter. [Partner] had to scrape the whole [roof] again." The activity could only be completed when the weather was appropriate for drying the paint.

Seasons influence SDL in another way. Statements indicated a sense of urgency to some SDL activities. Urgency occurred when SDL activities coincided with other lifestyle tasks. The seasonal nature of many farming tasks reduces the time available for engaging activities to a partner’s liking. The man from Couple B provided an example when circumstances necessitated the buying of a hay baler in the spring: "The reason I used the telephone was because I didn’t have time to jump in the car and flit all over the countryside." In discussing their garden shed activity the woman from Couple J explained the non-urgent nature of the activity meant it had to be fitted in with farming activities: "We are beginning to do it now, because we feel that now is a good time to fit it in with our farm management." Both statements acknowledge the difficulties in a farming environment of managing time in an orderly sense for SDL.

Learning was also governed by other environmental time frames independent of the time of year. Biological change (not necessarily seasonal) influenced SDL. For example, SDL associated with a partner’s pregnancy was synchronised with the gestation period. Being pregnant initiated a sequence of events that involved monitoring the health of the mother and baby, and prepared both partners for the birth and lifestyle once the baby was home. The woman from Couple D explained how the sequence of her pregnancy triggered SDL activity:

"When you find you’re pregnant you have to go to the doctor and she gives you the next stage which is where do you want your baby, and how do you want to have it ... and sorted that out, and then [during another appointment] she said about time to give up work, and what you are going to need for the baby ..."
Business-oriented deadlines influenced the start and finish of some SDL activities and restricted SDL activities within defined time frames. The man from Couple H, a school board treasurer, explained how deadlines influenced this community service activity: “Everything has to be done within a time frame, basically. At least twice monthly I’ve got to do the accounts and as something arises I find out what should be done about it.” Similar examples of deadlines included the end of the financial year (Couple E), GST (Goods and Services Tax) returns (Couple E), meetings (Couples A, B, F, K), and deadlines for newspaper articles (Couple K).

Section 4.2.4 has shown that resources and time influenced SDL in several ways. The availability and quantity of resources, especially materials and assistants, often influenced SDL by constraining the progress of the activity or altering the satisfaction gained from the experience. Nearly two-thirds of activities were constrained by money. Time factors also influenced SDL. Nearly half of the activities SDL were synchronised seasonally, biologically, or by business-oriented deadlines for learning to occur. This finding suggests that many activities are governed by circumstances beyond the control of the partner.

4.2.5 Evaluation of SDL Activities

The question of evaluation was designed to find out how partners evaluated their SDL. Partners were asked how did they know they were making progress in their learning to reach their goals. Unlike preceding questions used in the main interview where partners gave responses for all SDL activities, partners were allowed to choose which activities to remark about. This was done in order to assist in reducing the duration of the interview. Of the 103 activities chosen, 74 described external change as a result of the activity whereas 29 described a personal change. Partners’ responses were scanned for phrases that indicated how they evaluated their SDL activities. During the analysis it became apparent that partners preferred to talk about what they had achieved rather than what changes they noticed about themselves or how they monitored their SDL. The loaded nature of the question, which linked evaluation to the goal of the activity, may account for this observation.
**External Evaluation**

External evaluation involved partners noticing changes in their surroundings as a consequence of their activity and they used these effects to evaluate their SDL. The four statements below illustrate partners evaluating change using external criteria as a result of their SDL activity.

The woman from Couple G observed her garden when evaluating SDL for her garden activity: “Plants grow, the garden looks good, and the cats are sleeping in the garden now.” Another example came from the man from Couple D. He stated how he evaluated SDL for his ram buying venture: “What follows through to the next generation: lambing percentages, wool weights.” The woman from Couple J explained how they evaluated SDL for their garden shed venture: “By how quickly we get it done, by the result in the end which we haven’t got yet.” The woman from Couple B made this general statement about evaluating SDL activities: “By completing a project successfully . . . because you’ve purchased an item or you’ve finished a course. At a meeting something of conflict or discussion was discussed and decided on and finished.”

**Self Evaluation**

Self evaluation recognises internal changes concerning personal development. The next four statements show that self evaluation can involve: reflecting about the learning process; noticing an improvement in both skill and knowledge; making a greater contribution to a situation; and being able to explain something to someone else. Despite the diversity, all four statements recognise personal change as the result of a SDL activity.

Only the man from Couple A provided a description of his learning process as he was giving an evaluation of it. This involved learning to class wool:

“I would go for a couple of hours and felt as if I was doing it properly and then all of a sudden I’d lose concentration and come to a fleece and thought ‘where the bloody hell am I going to put this,’ type of thing . . . and finally I could get through a whole day with not having, well maybe only doing that once or twice, whereas on the first day that was happening quite regularly.”
Practising the skills of classing wool reduced uncertainty, the number of mistakes made and increased his confidence. The diminishing frequency of indecision coincided with increased satisfaction about his abilities.

The woman from Couple K was the press secretary for a local sports club. She made the following self-evaluation: “I realised I’d learned something when I was able to put together a short concise report about a game I didn’t really know anything about.” The woman evaluated her SDL by reflecting on the development of a writing technique that summarised Saturday afternoon games. During the season her writing competence and knowledge of the game improved.

Another example showed evaluation as a sense of a greater contribution to a situation. The woman from Couple E explained how SDL increased her input with the farm: “I can understand a lot more of what’s happening here . . . and I started to have a little bit of input.” Learning about the farm resulted in a greater contribution toward the decision process with her partner.

Explaining knowledge to someone else was another means of evaluation. The woman from Couple F stated how she evaluated SDL regarding a GST problem: “I could tell the boys [her sons] how much tax they were going to pay from what I found out.” The ability to apply and explain the Government’s tax programme to her family recognised a change in personal understanding about tax regulations.

In this subsection, partner’s satisfaction with their SDL typically was related to the extent their actions had an impact on the physical environment. However, some partners evaluated SDL through assessing their own personal change and development as a consequence of SDL activities. Statements revealed satisfaction to be related to increases in confidence regarding personal ability.
4.2.6 Summary of the Key SDL Components

The primary findings from each subsection showed that the majority of SDL activities of farming couples are conducted in a problem-solving or heuristic manner rather than a pre-planned manner. Self-directed learning activities were often reactions to social and physical environmental stimuli, especially immediate family members, friends and the farm. Men voiced a particular attitude about engaging community service roles. Activities often resulted in new personal skills or unanticipated insights relating to the content of the activity and other people associated with the learner. Partners also benefited from information which emerged as they engaged their activities. With this information partners decided whether to continue or terminate a goal and made distinctions between possible resources for achieving a goal. Pre-planning only occurred when professional education assistants were involved in SDL, while for the majority of activities assistants were used opportunistically in the form of informal consultations. The availability and quantity of resources, particularly money, limited the progress and satisfaction gained from SDL. The opportunity to learn was constrained by seasonal or biological factors, or business-oriented deadlines. Finally, activities were evaluated by external criteria regarding the changes in learners' life circumstances rather than personal changes.

The findings in this section portray a general picture of the nature of SDL activities of farming couples. The following section extends this picture by creating a gender perspective of the key SDL components and introducing the notion of 'activity ownership'.

4.3 Shared SDL

The preceding section focused on partners' SDL from an individualistic perspective. This section focuses on the SDL partners do as a couple, providing descriptions about the motivations which encourage partners to share each other's SDL activities and the circumstances which encourage partners to assist in each other's SDL. The important point is that these couples engage in joint
ownership of SDL activities although the degree of ownership may vary. There are two subsections. The first summarises cohabiting and occupational motivations to share SDL. The second subsection examines the act of sharing SDL by explaining the ownership of SDL and comparing the nature of individually and jointly-owned activities.

4.3.1 Motivation for Sharing SDL

To gain an understanding of shared SDL, partners were asked why they shared SDL activities. Their responses reflected two types of motivation. First there was relationship-related motivation, including individual commitment to, and enjoyment of each other. Second, the farming lifestyle was an important factor because cohabitation with a farming partner encouraged women to engage in SDL about the farm.

Relationship-related motivation to share SDL activities were expressed as mutual responsibilities resulting from the pragmatism associated with cohabitation. Mutual commitment to and enjoyment of each other occurred in several statements. The woman from Couple E felt there was an obligation to share learning experiences with her partner because they lived together. Other responses for sharing activities included "mutual pride" (Couples A and G), shared "interest" (Couples A, C, E, G, H, I, J) and shared "vision" (Couple G). Most partners said the experience of learning together was fun. Several statements expressed the pragmatism of sharing SDL. Couple G found it easier to live together when each partner knew about the SDL activities of the other. Couple L said many activities were simply "easier with two people." Couples B, G, I, and J said sharing activities was practical in case one partner succumbed to "illness" or "death." Sharing SDL reduced tension between partners and assisted in the continuation of their lifestyle.

It appeared to this researcher that the motivation behind sharing and assisting SDL between partners was inextricably linked to the management of the farm. It was very clear from the interviews that the farm dominated men's lives and women were very aware of the supportive role they had regarding their farming partner. Cohabitation on the farm meant that partners shared an occupation.
Throughout the interviews, especially with women who had recently settled with their partners, was the acceptance of this consequence of cohabiting with a farming partner. This acceptance was illustrated in a candid insight by the woman from Couple H: “I’m married to my husband and my husband is married to the farm.” This remark highlighted a ready acceptance of how the occupation of farming dominated the cohabiting relationship. Another example illustrated the commitment women make in their contributions to the farm. The woman from Couple B explained what influence the farm had on managing the household: “If there is a big change in the way the farm is being run it has a big effect on the way I’m running the house.” The statement reflects the priority of the farm business and implies a level of sacrifice to farming priorities that partners accept regarding non-occupational activities. Both men and women stated that hobby/recreation activities needed flexibility to be managed alongside farm commitments. As seen in Appendix Three men seldom engaged in these types of activities and although women are perceived as having more time to engage in hobbies, the farm often had precedence over the hobby.

Cohabitation on the farm also encourages women to learn about farming. Most women had no farming backgrounds. Since cohabiting with her partner, the woman from Couple D remarked that a greater proportion of her SDL had become occupational. The proportion of her cultural learning had decreased because she visited movie theatres, stage productions and restaurants less often since moving to the Waiau community. Several of the other younger women were actively learning about farming from their partners and two of the older women had their own agricultural projects on the farm.

Section 4.3.1 has shown that there are two motivations for sharing SDL. First, relationship-related motivations emerged from two sources: the mutual commitment to, and enjoyment of, each other as well as the pragmatism associated with maintaining their relationship and lifestyle. Second, motivation to share was also related to occupation and living in a rural community. Cohabiting in a rural environment encouraged women to accept the importance of the farm business and learn about agriculture. Also the distance to a large urban centre reduced the opportunity of cultural learning. While there are strong motivations for sharing SDL activities there is no necessary
condition to sharing the ownership of SDL.

### 4.3.2 Ownership of SDL Activities

There are differences between the SDL activities of men and women. While partners used the term "shared learning", the analysis of partners' interpretation of the term was found to embrace a broad range of interactions between partners. During the main interview partners were asked how they coordinated their shared SDL. This question was designed to examine how partners assisted one another's SDL as part of their cohabiting relationship. Responses about partner assistance initially involved humour. The man from Couple A joked: "I was told to." The man from Couple J giggled: "He who squawks the loudest..." followed instinctively by his partner: "Gets the most out of it," and the woman from Couple H quipped about her partner: "He butters me up then works me like a navvy." These responses suggest that ownership is an important aspect of SDL.

The following two examples show the diverse nature of how partners assist each other when sharing SDL. In some cases the responsibility for an activity rests with the initiator and in other cases it moves to the other partner. The first example involved a case from Couple H. The woman used the expertise of her partner to assist in a farm activity. Couple H had been together for 11 years and had two children of school age. The woman explained she wanted to use assets on the farm to contribute in her own way to the farm business and with their children at school the woman had the time to pursue such an activity. In an exchange with her partner, the woman explained her nurse cow venture: "[my partner] knows a lot more about farming than I do. . . [but] I did a lot of the homework. . . and then I needed his seal of approval sort of." Then her partner explained his role: "If there was something I wasn't happy with then I would also look into it." This activity clearly belonged to the woman. Her partner shared in this activity by occasionally providing guidance about the nature and extent of her SDL activity.

Sharing SDL not only involved transferring information between partners but also assuming the responsibility for SDL. A pragmatic reason for assuming the responsibility of an activity was
illness. In another example the woman from Couple K explained how she had shared an activity with her partner because of illness during her pregnancy. The woman initially focused on one activity, stating her husband had assumed responsibility for the house renovations while she was incapacitated. The woman then offered a candid insight into their relationship. In revealing personality differences between her and her partner, she insinuated that the responsibility for SDL activities often shifted regularly from her to her partner:

"I'm very good at initiating projects and finding out when it's all new. I'm not very good at working things through, I get tired of things, I think they are boring and [my partner], Mr Worker, he does all that."

This couple shared SDL, and this involved transferring the responsibility of activities from one partner to the other.

The two examples used in this section show that ownership of SDL is diverse in nature and is important for understanding the nature of SDL. Ownership was identified by ascertaining which partner had assumed the greatest responsibility or burden (the onus) of an activity. Activities were then sorted for further analysis. The following account shows how ownership of SDL was distributed between men and women.

The ownership of SDL activities was attributed to the partner responsible for the majority of SDL for any particular activity. For most activities, determining ownership was easy. Statements about the incentive to learn, historical and present levels of effort toward the activity, were often useful in assessing ownership. Sometimes however, partners stated that they shared particular activities. For these activities, couples were asked during the follow-up interview which partner, if any, contributed more energy, time and commitment to the activity. In most shared activities one partner contributed more of themselves to the activity than the other. However, in 13 cases out of 165 no single partner was identified as contributing more than the other. These were categorised as joint activities. Frequencies of men's, women's and joint activities as derived from the follow-up interviews are presented in Table 5.
Table 5

The Frequencies of SDL Activity Ownership

<table>
<thead>
<tr>
<th>Activity Ownership</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>86</td>
</tr>
<tr>
<td>Women</td>
<td>66</td>
</tr>
<tr>
<td>Joint</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>165</td>
</tr>
</tbody>
</table>

As a result of determining ownership, the examination of SDL activities focused on gender difference. Where the ownership of SDL was differentiated by gender, the responses given in Section 4.2 (on key components of SDL) were used to describe the activities of men and women in order to identify any gender difference in SDL. Where the ownership of SDL was equally shared, the circumstances which encourage partners to engage in joint ownership of SDL activities are examined. Partners' details of SDL activities from the main interview were analyzed by gender. The tabulated frequencies concerning activity descriptions, SDL activity time, incentives, benefits and assistance components are presented in Appendix Three. The trends emerging from comparisons of responses indicated that men and women undertook different SDL activities. Several couples used the term "domain" to identify SDL activities specific to each partner in the follow-up interview. Where ownership of SDL is differentiated by gender it is useful to see the man's or woman's ownership as a 'learning domain'.

The learning domain of men was characterised by activities that typically: involved occupational content; consumed 21 hours or less in the previous 12 months; were stimulated by the environment or their acquaintances; benefited from learning directives; used professional/experts; and as previously noted in Section 4.2.1, men felt they were forced into community service roles. Men also recalled more activities than women. The learning domain of women was characterised by activities that: involved home/family or hobby/recreation content; consumed 21 hours or more in the previous 12 months; were stimulated by household or personal initiatives; or benefited from unanticipated insights. In addition, when compared to the men, women's activities had a greater
propensity to develop new skills and be assisted by professional education assistants.

The different learning domains for men and women reflected traditional rural cohabiting roles associated with farming. Mens’ activities had a greater problem-solving nature associated with the task oriented nature of their occupation. Womens’ activities were more investigative in nature requiring longer time for completion.

Circumstances which encourage sharing equally the ownership of SDL activities occurred when both partners knew little about the content of the activity or when both were concerned about the outcome of the activity. Of the 13 activities categorised as joint ownership, ten involved home/family descriptions concerning financial investments and house renovations, and three were occupational, concerning income generation (Appendix Three).

An interesting issue related to ownership of SDL activities is the way ownership can shift from one partner to the other. Factors influencing these changes include: who the activity primarily involved; who benefited the most; whose personal interest it was; or who had the abilities and personal time to do the activity. Changes in ownership assisted in the perpetual cycles of life changes by allowing one partner to be free of the responsibility of shared SDL to tackle other activities and/or tasks, and reduced conflict about the onus of SDL activities between partners. Trusting the responsibility of a SDL activity to one partner is a part of cohabitation.

Section 4.3.2 investigated SDL ownership. The determination of SDL ownership has shown men and women engage SDL differently. Gender differences were found regarding SDL components and these appeared to reflect the different responsibilities each partner has in the cohabiting relationship. This observation lead to the term ‘learning domain’ which represents the gender differences of partners. Equal ownership of SDL activities occurred in circumstances which motivated both partners to make indistinguishable contributions to the overall activity. The transfer of SDL ownership between partners appeared to be an integral part of cohabitation and allowed couples to manage SDL activities while partners experienced personal changes in their circumstances.
4.3.3 Summary of Shared SDL

Section 4.3 contributes to this research by exploring the influence of cohabitation regarding the SDL of farming couples. The main results show two motivations for partners to share SDL. First, relationship-related motivations reflected expressions of mutual affection for, and willingness by partners, to maintain their chosen lifestyle. Second, sharing SDL was inextricably linked to the context of cohabitation. Cohabitation with a farming partner encouraged women to learn about the importance of the business. Living in a rural community also reduced the opportunities for some cultural learning experiences.

To understand the sharing of SDL further, the analysis shifted to focus on the ownership of SDL activities and how this varied for each gender. Analysis of ownership of SDL activities showed that men had responsibility for most of them, women had responsibility for some of them and a few were shared. Activities reflected partners’ traditional cohabiting roles and suggested each gender engaged in different learning process for the majority of their projects. Gender differences resulted in the term 'learning domain.' Sharing equal ownership and transferring ownership of SDL activities appeared to be mechanisms used by couples for partners to manage SDL activities as circumstances altered their personal commitments.

4.4 Social Networks and SDL

This section develops the perceptions partners had of other members of the community who provided assistance, in some way, while the couple were undertaking a SDL activity. Upon briefly describing the differences between men and women's social networks, this section examines what local people contribute to SDL, both to the activity and to the person undertaking it. It then focuses on a local farm discussion group to show how social interaction influences respectability in a rural community. The section closes by describing the characteristics of an ideal influential local learning assistant and evaluating the characteristics of the sample.
Section 4.2.3 focused on the social interaction with learning assistants in which partners conducted their SDL. The majority of assistance was opportunistic and relied on informal consultations. These consultations not only involved partners but other community members. Although many social connections often originated from men’s longer association with the community, it was often stated by partners that the most vibrant social network existed between the younger women of the community. Most partners agreed that women spent more time using their social networks than men, because the daily occupational tasks of men removed them from opportunities to socialise. Women who had been in the community longer said their networks had changed with the progressive development of their children. These different aspects of men’s and women’s social networks appeared to be linked to the learning domain of SDL.

The habit of involving local people in SDL activities had practical benefits generally and was seen as an important part of socialising in the community. The man from Couple 1 discussed the benefit of inviting other farmers onto his property: “They’re an outsider looking in, they could see something that you don’t always see or you see everyday, but they can see a simple solution.” The woman from Couple 1 explained why she supported local business when finding a builder for their new kitchen: “I think they have a very good understanding of what it’s like to be in the country, to have a farm house type place, where people troop in and out all day.” Both statements indicate how local people contribute to SDL activities by offering other local perspectives.

However, talking to local people did more than provide new perspectives and ideas. It also indicated to the learner whether their activity was realistic in local terms by providing the opportunity to gain support from other people. A statement from the man from Couple C illustrated this point when he explained why he engaged other people in his SDL:

“Often you might tell what you are doing with a friend or a neighbour with the idea of them saying ‘what a bloody silly idea that is’ or ‘that’s not a bad idea, I can understand why you are going to do that.’ So, yeah, peace of mind I suppose you could call it.

The statement by the man from Couple C also indicated how social perceptions of community
members were formed. Social interaction was useful for gaining information and support, but it also provided other community members the opportunity to judge the learner in terms of the local context. The propensity to judge people by the nature of their SDL activities influenced how the rest of the community interacted with the learner. This became obvious during the main interview when discussing a local farm discussion group.

During the main interview, some partners expressed opinions about the suitability of particular local people they had involved in their SDL. These judgements were highlighted in a statement from Couple B. The man stated that a local farm discussion group discriminated in selection of its members:

"The members of the discussion group ... tend to be in the younger to middle age, ones that are trying to make progress and keen to learn. There are people in the community you don't want in the discussion group for various reasons ... and generally everybody has the same opinion about that."

Farm discussion groups are an example of SDL because the act of participating in them is a highly deliberate attempt to gain knowledge and skill about farming. Similar to other non-formal educational situations, the learner chooses information relevant to their needs from that which is provided (see Section 4.2.3, p. 46, for quote on facilitation). The interaction within these groups allows learners to pursue their specific SDL activities further by involving other group members as learning assistants.

Reasons for discriminating membership were sought in the follow-up interviews. The man from Couple F said farmers in the community who were unreliable, or unwilling to disclose information about themselves, or whose properties were too embarrassing to visit, were excluded from the group. The man implied properties which were poorly developed and therefore an embarrassment to the community represented lower farming ability and that group members would gain little benefit from visiting them.
To be a member of the group required actively contributing to group activities including encouraging group visits. Statements about the group provided evidence of the serious nature of the social interaction during group visits. Couple I had recently been visited by the group. The man described preparing for the visit:

"You do your homework: your areas sown in grass? How much lucerne? How much is in winter feed? Feed on hand? Your stock on hand? How much hay you've got in the hay barn? . . . and you have to know things like your stocking rate per hectare . . . I was going to be grilled on questions. I had to know my facts."

As it was the management of properties which was evaluated by the discussion group, group visits required host farmers to be answerable about their farm business. This behaviour singled out specific farming SDL activities which constituted the host farmer's management policies. The intensity with which farmers were "picked to bits" (Couple H) by their peers is one of the accepted conditions of being a member of the discussion group. The significance of type of social interaction concerned the gaining of local respect about farming ability. Farming ability determined the quality of information exchanged during group visits. The man from Couple H remarked: "They [other farmers] can give you the benefit of their information. Depending on how they run their patch, you can take it as gospel or be a wee bit suspicious." This statement suggested that integrity of farmers as local learning assistants was based on social perceptions of their on-farm capabilities.

The practice of membership discrimination means that partners have preference for learning assistants, and they described hypothetically, an influential local learning assistant. Responses varied from "being approachable" (Couples E & G) and "a confidant" (Couples G & H), to "having a balanced outlook" (Couple H), "vision" (Couple F) and "ability to achieve their goals" (Couple J). Sensitivity, trustworthiness, judgement and capability were characteristics partners considered important for someone to be an influential assistant. Capability, in particular, was one characteristic that seemed paramount when involving assistants in SDL. The man from Couple I explained why he sought the top farmers for his SDL activities: "They've got the experience and they're proven performers really." Those farmers perceived as successful were considered influential learning assistants.
An interesting development during the follow-up interview was the discovery that all the men of the sample belonged to the same discussion group. Therefore, it seems plausible that the descriptions about influential learning assistants represented participant's perceptions of themselves as a group, in particular the approachable nature of the men as local learning assistants. The group represented a clique of farming people in the Waiau community.

This section has examined the role of social networks in SDL. Social networks provide learning assistants for SDL. The interaction within social networks provides partners with both information and emotional support. These interactions also influence local opinion of the partner themselves and their ideas. This section has shown that partners exercise preferences when seeking learning assistants. In the case of a local farm discussion group, preferable learning assistants were determined by perceptions of their farming capabilities and social conduct. In a rural farming community, learning assistant preferences appeared to encourage cliques of local farmers.

4.5 Overview of Findings

This chapter was separated into three main sections based on the qualitative questions of the main interview. The three sections summarised responses about the key SDL components, shared SDL, and social networks and SDL.

These results show the main points about the key components of SDL. Most SDL activities originated from interaction between the partners and their social environment (other immediate family and friends) and physical environments (mainly the house and farm). These origins were largely external rather than deriving from partners' feelings. Generally, partners said their that SDL gave the benefits of developing personal skills or providing unanticipated insights, renewing appreciations about themselves, their partners and other community members, as well as the content of their activities. Many activities also provided the basis for deciding whether to continue with or terminate an original goal, or distinguishing resources for achieving a goal. The benefits of SDL
often extended beyond an awareness of the content of partners' activities to the goals, people, and resources associated with their SDL. Pre-planning, in a formal institutional sense, only occurred when professional educational assistants aided partners in their activities. The majority of activities were not pre-planned. Instead partners instinctively utilised assistants through informal consultations at the pub, visiting each other, or by phone calls. The frequency of informal consultation suggested that the majority of SDL was opportunistic in nature. Furthermore, the availability of resources, especially money, and assistants limited the progress of activities and the satisfaction gained from SDL. Seasons, and biological and business deadlines, influenced the timing of SDL to be completed. Descriptions of these factors suggested that nearly half of the activities were governed by external circumstances beyond the control of partners. Finally, partners evaluated their SDL in terms of achieving their goals, typically relating to the external environment rather than relating to personal changes.

These findings show that SDL undertaken by farming couples in a rural community is opportunistic in nature. Many of the key components of SDL were reactions to, and often governed by, circumstances external to the partners. Partners also used changes in external circumstances to evaluate their SDL. Also adding to the opportunistic image of SDL was the finding that partners often recalled benefits as an awareness of something other than achieving the immediate learning goal.

The results from investigating the sharing of SDL showed why and how sharing was conducted between cohabiting partners. Essentially, the sharing of SDL reflected the desire for partners to continue their lives together and indicated how partners interact in order to fulfil this desire. Motivations to share SDL were inextricably linked to the maintenance of the cohabiting relationship and the continuance of the farming business and lifestyle. Women described the consequences of cohabiting with a farming partner in a rural community, in particular, how the priority of the farm business governed the nature and timing of SDL they themselves conducted. Examining the shared nature of SDL required determining the ownership of activities. Analysis of ownership showed that only a few activities were shared equally. This finding showed most activities belonged to the
‘learning domain’ of one partner or the other. Examining SDL by gender showed that the components of men and womens’ SDL were different, suggesting that the nature of their learning was also different. Partners also practiced equal ownership of, and transferring ownership of SDL activities. These behaviours appeared to be management mechanisms which allowed the continuation of SDL activities as partners personal circumstances altered their learning commitments.

The findings relating to social networks indicated the contribution of social interaction to SDL activities. While the functioning of men and womens’ social networks differed at a local level both provided information and support. Encouraging other locals to evaluate their SDL also provided the opportunity for partners to be judged by the community. Partners stated they had preferences when seeking local learning assistants. In focusing on a local farm discussion group, preferable learning assistants were determined from observations of their farming capabilities, including their ability to withstand local criticism of their farming business, and their general social conduct. The fact that all the men in the sample belonged to the same discussion group suggested that the sample represented a clique of preferable learning assistants within the Waiau community.

The objective of this research was to describe the nature of SDL activities of farming couples. Using the techniques described in Chapter Three, this chapter has presented aspects of the SDL conducted by farming couples. In the following chapter, the key findings are discussed with reference to relevant literature.
Chapter Five

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter discusses the findings and nature of this study and proffers an explanation about the self-directed learning (SDL) investigated. The structure of this chapter involves a brief summary of Chapters One, Two and Three and a comparison of the results from this study with those of earlier research. It also outlines the limitations of the study, discusses implications for future research, and finally considers practical implications.

The research objectives stated in Chapter One were to provide an exploratory account of the SDL of farming couples, to investigate the key SDL components and the interactions between cohabiting partners and their social networks. Chapter One emphasised that an important part of this study was to focus on how cohabitation, occupation and living in a rural community influences SDL.

Chapter Two reviewed the transformation of SDL research since Allen Tough’s 1979 publication. Four components of SDL were identified as important to the study. Chapter Two also emphasised the absence of research regarding the social context of SDL. Further, the review showed that it is problematic to compare modern studies directly with earlier replications of Tough’s work and that there is now a greater acceptance of the use of qualitative research to improve understanding of SDL.
Chapter Three explained the alterations to Tough’s method that this study used to investigate SDL. Regarding the questions asked, cohabiting partners were interviewed together, and there was little prompting. Multiple interviews were conducted using open-ended questions. In addition, the sample was generated using the snowball technique which utilised participants’ social networks. This technique resulted in a group of similarly minded people.

Chapter Four reports on five SDL components, three of which did not correspond with those identified in Chapter Two. During the investigation, responses to the Chapter Two SDL component of planning encouraged the analysis to focus on how learners acted instinctively regarding their SDL - their propensity to engage informal consultation with learning assistants rather than pre-planning. To gain further understanding of SDL, another component was added to the investigation which focused on the key factors that influenced SDL - resources and time. Furthermore, as an addition to evaluation, partners were also asked to recall the benefits they gained from their SDL. These alterations provided greater depth to the investigation compared to much of the earlier research.

This study initially focused on the components of SDL but during the analysis the need to focus on the ownership of SDL emerged. Attention was given to the comparison of men and women and their respective approaches to SDL, which led to the development of an understanding of gender differences regarding the SDL activities engaged in by cohabiting partners. Along with the emphasis on social networks, this study has examined the social dimensions associated with SDL.

5.2 Current Understanding of SDL in the Light of this Research

A major theme to emerge from the findings of the SDL components corresponded with other modern studies of SDL. This study, like Spear and Mocker (1984), found the frequency of pre-planning was less than that claimed by Tough (1978, 1979, 1982b, 1983, 1989). Other similarities included partners’ unawareness that they were directing any form of learning (Leean & Sisco, 1981;
Peter & Gordon, 1974, Whitmore et al., 1987; Underwood & Salmon, 1981) and that they seldom understood why they directed their SDL (Cross, 1981). Although many activities focused on specific goals, partners did not pre-plan in a formal traditional sense. Instead partners instinctively employed informal consultation in a serendipitous manner, an observation which corresponds with Candy's (1991) view of SDL.

Unanticipated insights and learning directives were similar to aspects of SDL as described by Danis and Tremblay (1987, p. 6), that "self-taught adults proceed in a heuristic manner . . . without following any predetermined patterns." Furthermore, the fact that many activities were governed by time and resource factors suggested farming couples' SDL experiences were influenced by their environment, or as Spear and Mocker (1984, p. 4) explained by their "organising circumstance." The context of SDL forces learners to choose "from limited alternatives which occur fortuitously within their environment" (Spear & Mocker, 1984, p. 4). The naturalistic form of SDL conducted in farming environments is similar to that of other learning environments: life events, whether natural sequential clusters or random events, promote spontaneous, unplanned natural learning (Warnat, 1981). The life events which influenced SDL in this study involved cohabitation, occupation and living in a rural community. Life events influenced the SDL activities of each gender.

This study shows that most SDL is stimulated by social factors, especially the spouse or other immediate family. This finding supports the observations made by Jarvis (1987) and Brookfield (1983). However, upon examining the frequencies of responses by SDL ownership, an interesting fact emerged. The stimuli of women's activities was derived from household and personal incentives whereas men's activities were derived from physical environment and acquaintance incentives. This divergence of incentives suggests the SDL of partners derived from gender-associated life circumstances.

A major contribution of this study to understanding SDL is the importance of the social dimensions. This study described SDL occurring between cohabiting partners who manage a rural business and
examined the contribution of social networks to SDL. Chapter Two showed that most social research had focused on the role of community organisations in SDL rather than intimate relationships common to cohabiting couples. Further, this study found that the SDL associated with cohabiting partners who manage a farm business was characterised by learning domains, that is, SDL activities often became owned by one partner rather than shared equally. These gender-based patterns appeared to be a consequence of differing partner backgrounds regarding the community and farming prior to cohabitation, as well as traditional cohabiting roles expected of each partner. The phenomenon appeared to result in differing incentives for men and women to engage SDL.

Differences between men and women's SDL has been noted in another study. Leean and Sisco (1981) labelled women in their study as "seekers" because they sought a greater variety in their learning than men. Men in their study tended to focus on what they were already doing in their lives and were labelled "focusers." In the present study, a similar picture emerged. Men's SDL appeared to reflect their commitment to their farm and occupation. Men had few hobby/recreation activities and found community service activities irritable, agreeing with observations of Havighurst (1972) and Moore (1990). Women's SDL reflected their need to experience a wider range of activities other than those occurring on the farm. Their activities were more varied and social in nature than men's. Women recognised they needed new skills in their new life, whether managing the home or business (farm or other), or starting an interest. The gaining of skills and many hobby/recreation activities often involved group encounters, accounting for the higher number of facilitative learning situations than men.

To help illustrate the differences in the nature of men's and women's SDL, Havighurst's (1972) adult development tasks are introduced to show what tasks men and women were experiencing at this particular stage of their lives. The distinctive nature of SDL for men and women reflected their emphasis on different adult development tasks while cohabiting. Havighurst (1972, p. 2) defines adult development tasks as "those things that constitute healthy and satisfactory growth in our society. They are the things a person must learn if [they are] to be judged and to judge [themselves] to be a reasonably happy and successful person." Havighurst separates adult life stages into early adulthood, middle age and later maturity. None of the later maturity stages applied to the
couples in this study because of the younger ages of members of the sample.

Of 14 of Havighurst's early and middle adulthood development tasks, ten corresponded with the 165 SDL activities. These included six early adulthood development tasks: starting a family; rearing children; managing a home; getting started in an occupation; taking on civic responsibility; and finding a congenial social group. Also identified in the activities were four middle age development tasks: assisting teenage children to become responsible and happy adults; achieving adult social and civic responsibility; reaching and maintaining satisfactory performance in one’s occupational career; and developing adult leisure-time activities.

The learning domains of men and women favoured particular adult development tasks which distinguished the SDL activities which each gender engaged in. For example, the tasks of starting and maintaining the farming occupation was the learning domain of the men. Although women participated in farm decision making, they conceded that the farm was their partner’s domain and the learning associated with it remained theirs. Over half of men’s SDL activities involved their occupation. Furthermore, most of their education activities involved a farm discussion group.

In contrast, the decision by urban women to cohabit with a rural partner resulted in different incentives to engage in SDL because their SDL emphasised different development tasks to men. In moving to a new district, women actively sought new activities as part of their changing life circumstances. They were changing careers, assuming most of the household and parenting responsibilities, and finding congenial social groups. Finding a congenial social group appears to have great social importance. "Outsiders" (Whitmore et al., 1987, p. 66) and women (Foley, 1993) often meet in groups for social reasons. Women in this study were often "outsiders" also. Participating in local groups reflected the emphasis on different development tasks by these women, especially to find a congenial social group.

Tough, and those who replicated his method, focused on psycho-motor activities (Brookfield, 1983; 1984), in which the knowledge and skills gained were related to the task of the activity. However,
nearly half of the benefits cited in this study were unanticipated from the outset of the activity. Many unanticipated insights involved learning other than Tough's (1979) knowledge or skills suggesting that the significance of SDL activities may involve learning not associated with the task of the activity. In accordance with findings in Foley (1993), Rossing (1991), and Whitmore et al. (1987), this study found partners noted changes in their perceptions of themselves, their partners, and other community members as a result of engaging a task. Three more of Havighurst's (1972) early and middle adulthood development tasks corresponded with these insights including: learning to live with a marriage partner; relating oneself to one's spouse as a person; and accepting and adjusting to the physiological changes of middle age. These insights represented learning which is seldom initiated by goals, bound by time, or even engaged intentionally, but has significance in the social dimensions of SDL.

The significance of one unanticipated benefit (gaining personal insight about one's partner) was found when investigating SDL ownership. In this study, the ownership of some activities was shared equally or sometimes shifted between partners. The transfer of SDL ownership, as described in Section 4.3.2, represents the outcomes of negotiations as partner's personal circumstances change as a result of environmental change. The negotiations reflect the development tasks needed to maintain a cohabiting relationship. The ability of partners to individually assume the responsibility of joint or even each other's activities allows the other partner to focus on other priorities. In negotiating the responsibility for their SDL activities, partners exercise the flexibility that may occur with cohabitation. This flexibility results in incidental insights of themselves and each other. The extent to which all the farming couples were aware of this phenomenon was not determined by this study.

By investigating partner interactions and SDL components, this study provides some insights into how partners manage their SDL activities while maintaining their cohabiting relationship on a farm. As a result of cohabitation in a rural setting, SDL activities of men and women are related to different development tasks. The task oriented nature of the SDL activities identified in this study (e.g. managing the household, the farm, or involvement in the community) corresponded with some
of Havighurst’s (1972) development tasks. Other development tasks were not perceived by couples as SDL activities. These development tasks were associated with insights that emerged from the undertaking of, and negotiating the ownership of, SDL activities. They appeared to be inextricably linked to the social context of SDL and reflected the flexibility exercised between cohabiting partners allowing themselves and each other to grow as individuals and as a couple.

It seems appropriate to note an interesting observation raised about SDL here. Brookfield (1985b) suggests most people operate within self-imposed limits and are often trapped in their own history. Brookfield (1985b, p. 10) states people are "not likely to shift paradigms, transform perspectives, or replace meaning systems as purely of their own free will." However cohabitation, as studied here, appears to be one situation where people initiate intrapersonal transitions as a result of their own free will. The desire of two people to maintain their cohabiting relationship encourages each partner to consider and engage in additional forms of SDL they would otherwise not engage in. The flexibility exercised by this reconsideration ensures continuity of the relationship, occupation and lifestyle by altering partners' paradigms, perspectives and meaning systems. The inability of partners to change and accept new paradigms, perspectives and meaning systems would result in conflict within the relationship.

Having discussed SDL in terms of cohabitation and development tasks, it is relevant now to discuss learning assistants and the role of respectability in SDL. Social networks, including local groups, are a rich source of learning assistants as shown in this study, and identified in earlier research (Brookfield, 1981b; Elsey, 1974; Whitmore et al., 1987). However, although Brookfield’s (1981b, p. 20) notion of "fellowship of learning" existed in the Waiau community, like Fingeret (1983) the depth of personal information exchanged when socialising was regulated by social perceptions of respectability. Trust played an important role when assisting SDL with more reputable community members considered to have knowledge of greater value. Partners developed preferences for their learning assistants based on an appreciation of the pragmatic and experiential nature of SDL, similar to the observations of Whitmore et al., (1987) and Brookfield’s (1981b) objective evaluation approach. For example, belonging to a local farm discussion group appeared as a privilege as only
people with reputable characteristics associated with being influential local learning assistants could join. Members benefited from visits and discussions in an atmosphere of critical reflection about farming practices, an interaction that was comparable to Elsey's (1974, p. 393) "competitive element". These social encounters influenced personal judgements of SDL, similar to the observations of Cafferella and O'Donnell (1988), and appeared to be the result of gaining and maintaining social acceptance in the Waiau community.

The last part of this discussion attempts to highlight the social context and nature of SDL conducted by farming couples. This study found that the SDL conducted by farming couples was in large part a reaction to external circumstances, involving informal consultations with family and friends and resulting in unanticipated insights. That is to say, SDL was generally governed by the context in which it occurs. Figure 3 (see page 76) illustrates the main findings of this study and provide an overview of SDL engaged in by farming couples. The diagram consists of two ellipses, the vertical ellipse represents the context of cohabitation (i.e. Waiau community and farming) whereas the horizontal ellipse represents the learning domains of farming couples. Partners typically have different backgrounds prior to cohabitation with men often, but not always, having an association with the Waiau community and/or farming. The top of the vertical ellipse shows the general background characteristics of the men included inside the ellipse and those for women outside the ellipse. These background characteristics lead, via the two arrows, to the learning domains of farming couples. The arrows within the horizontal ellipse represent the flexibility regarding the ownership of SDL activities reflecting the negotiations partners undertake to allow each other to grow separately and together as a couple. The development tasks associated with these negotiations are not SDL but influence perceptions of SDL. Upon becoming aware and reflecting on these negotiations, partners realise how juggling SDL activities between each other, and engaging in these activities, results in personal transformations regarding themselves, each other and other community members. This suggests that the nature of cohabitation is a situation where people initiate intrapersonal change of their own free will.
Most women in this study:
• Were from outside the Waiau community and had little farming experience;
• Did not foresee themselves as farmers;
• Had careers in occupations other than farming before cohabiting.

Most men in this study:
• Were born in the Waiau community or on a farm;
• Wanted to be a farmer at an early age;
• Had agricultural education and practical experience of farming before cohabiting.

The Learning Domains of Farming Couples

Women's Activities
Time: Often longer than 21 hours; Activity: Mostly Home/Family, Hobby/Recreation; Incentives: Mostly Household, Personal Initiative; Benefits: Mostly Unanticipated Insights; Assistance: Used more Facilitation; Nature: Mainly Investigative.

Men's Activities
Time: Often shorter than 21 hours; Activity: Mostly Occupational; Incentives: Mostly Physical Environment, Acquaintances; Benefits: Mostly Learning Directives, Unanticipated Insights; Assistance: Mostly Consultation; Nature: Mainly Problem-Solving.

Joint Activities:
Time: Often longer than 100 hours; Activity: Mostly Home/Family; Incentives: Mostly Household; Assistance: All Consultation; Nature: Mainly Investigative.

Learning Domains illustrate:
• The differences in the components of task oriented SDL activities of partners.

Learning domains reflect:
• Different partner backgrounds prior to cohabitation;
• Traditional gender roles associated with a farming business;
• Different emphasis on development tasks by partners as a result of cohabitation;
• Negotiations between partners about the responsibility of SDL activities.

The negotiations between partners about the responsibility of task oriented SDL activities results in:
• An increasing awareness by partners about themselves, each other, and other community members;
• The suggestion that cohabitation as a situation where people initiate paradigm shifts, transform perspectives and change meaning systems of their own free will.
A theoretical issue this study has raised is whether SDL can be shared equally by two people and if so, whether it can be called self-directed learning. Cohabitation appears to be a situation that encourages interdependence between two people. Brookfield (1985b) questioned whether self-directed learners are indeed as independent as the term suggests. In this study equal ownership of SDL was considered shared SDL, however, in over half of all activities investigated partners were learning assistants for each other. In these instances SDL did not relate to a single person but to cohabiting partners who act as a single entity - a couple who are attempting to reach a goal together. The definition of SDL may need to be broadened to include SDL in dyads, where there is shared responsibility for planning, implementing, and evaluating learning. However, this would also require further study of the dynamics between the two people within this dyad as a means of explaining the sharing of goals, planning, implementing, and evaluating SDL. Furthermore, social interaction between peers in a rural community shows that SDL often can involve more than the learner in the planning, implementation and evaluation of activities. Partners in this study had preferential learning assistants suggesting that the information and emotional support from particular individuals was a crucial element of SDL in a rural community.

To conclude, this study set out to investigate and describe the nature of SDL engaged in by farming couples. The findings from this study were similar to that of other modern SDL studies - that SDL reflected the impact of environmental constraints which stimulated unplanned learning using informal consultations and often resulting in unanticipated insights. However, this study shows that men and women have learning domains characterised by different SDL activities and interaction. This reflected the emphasis of partners on different adult development tasks as a consequence of different backgrounds prior to cohabiting on the farm. Both the engagement of, and negotiating the ownership of, SDL activities not only produced changes in the external circumstances of farming couples, but these also changed partners’ perceptions of themselves and each other. These insights were incidental to, and unanticipated at the outset of, the SDL which they undertook. These insights reflected adult development tasks that provide the flexibility for partners’ to maintain their cohabiting relationships and associated lifestyles.
5.3 Limitations of this Study and Future Research

The exploratory nature of this study combined with the sample size and the qualitative research approach has provided a basic picture of SDL, cohabitation and social networks in a rural community. The exploratory nature of the study reduces the scope of representativeness regarding SDL activities and behaviour in the wider farming community. This study identified the study population by occupation and then utilised their social network to generate a sample. The use of only 12 couples and the nature of their nomination did not produce a random sample of participants. The conclusions this study offers relate to the sample used although it is reasonable to expect that some of the key aspects of SDL identified here will be relevant to other farmers. Further, some of the findings relating to gender may well relate to SDL in urban settings, or at least, other settings where partners are closely related in terms of occupation.

Furthermore, this study only explored SDL activities conducted over the previous 12 months. This study did not emphasize the chronological nature of SDL within the 12 month period although many activities appeared to be associated with seasons. However, there were indications that some activities conducted during this period were not representative of a normal year. The number of house renovations and purchases of equipment suggested farming couples had spent more money that year than in previous years. The spending of large sums of money is an example of the type of activity in which both partners actively participate, suggesting partners may have shared more activities during the period of 12 months than in previous years.

Conducting interviews during the summer may have also limited the SDL identified. Some couples said they did more learning during the longer winter evenings which coincided with the end of their financial year. Some couples felt they socialised more during the winter because there were less demands on the farm. Conducting winter interviews may have encouraged partners to be more diligent in keeping research diaries.

The use of diaries was of limited benefit. Other research could use diaries more effectively as a tool to prompt responses about SDL. Farm diaries would contain plans, ideas and experiences about
operating the farm and would easily relate SDL to seasons. The SDL identified within farm diaries would most certainly be task oriented as it would relate to operating the farm. However, the impact of other circumstances on farm activities may not be recorded and would need to be recalled. Brookfield's (1981c) conversational interviewing technique may provide an alternative approach for identifying and investigating SDL activities in these circumstances.

This study has highlighted an area of further study: farming people and the way they learn and initiate personal change. Research could move from the task nature of SDL to learning of deeper significance to the learner. Further research could investigate different social groups or networks, and focus on the effects of informal change regarding paradigms, perspectives and meaning systems as a result of SDL activities. Linking this kind of research to self-actualization may also be beneficial in exploring relationships between personal and community development. Such research may be in a position to contribute to rural development by encouraging greater acceptance of, and interaction with, members who do not fit accepted community norms and possibly resolving community tensions and generally enhancing the social context of learning in rural communities.

One research possibility is to focus on the SDL activity of influential local learning assistants in rural communities. This would balance the studies that focus on SDL itself. In exploring the social networks of learning assistants, such studies would show the social impact of these people in rural development and possibly enhance understanding of informal educators at a grassroots level. The sample in such a study would not only involve an occupational definition but also a definition about their input in the SDL activities of other people.

At a wider level this study has showed that farming couples provide an excellent opportunity to investigate the different life transformations experienced by men and women who cohabitate in rural communities. Further studies could explore the SDL of women who recently moved to cohabitate in a rural district and the support they receive from the community. By focusing on their expectations and attitudes of moving from an urban to a rural lifestyle, the precautions or contingencies they make to cope with the changes they expect, and an evaluation of how they
changed as a result of the transition, may provide a greater insight into the interactions and shaping of learning domains of people working at home and in family businesses.

This section has indicated some ideas for further research. The following section suggests some recommendations for policy and practice regarding SDL in rural communities.

5.4 Implications for Policy and Practice

This study has focused on the SDL engaged by farming couples. It has highlighted the differences in the SDL activities of men and women, not only the components of their activities but also regarding their social networks. In light of the conclusions of this study, it is proposed that agricultural extension for rural development broaden its target group for the distribution of farming ideas.

In a previous study conducted in another part of the province of Canterbury, Moore (1990) proposed that the incompatibility between the agricultural information industry and New Zealand farmers was due to the lack of farmer training regarding information technology. It may prove worthwhile to involve other members of the family with information technology appropriate for agricultural use. Comments during this investigation suggest that many farmers have little time for formal educational training and that reading in particular was considered a laborious task.

The targeting of rural women with information technology may have promise. As realised in this study, partners often have close relationships with plenty of interaction. Women of farming partners often have interest in the farm business and may have greater flexibility to organise time for the training involved with information technology. In this study, many younger women had tertiary qualifications. They would have used information technology in their education and therefore be more adept for assuming the skills offered by formal training. However, as Rogers (1992) notes knowledge is not enough to induce change and that attitudes have an important role in the acceptance of new ideas. The danger associated with this idea is that it might shift the responsibility of learning about farming away from the learning domain of men and create friction.
in the household.

The need to promote information technology training may not require any form of encouragement. The spread of computers into rural schools could be the most effective means of introducing new information technology to farming couples. Using approaches which involve other family members as well as social networks (e.g. farm discussion groups) in the promotion of ideas within rural communities is part of the philosophy suggested by Rogers (1992). This type of approach helps saturate communities with ideas for social change and recognises people use many different assistants in their SDL.


85
Beverly Hills, Sage Publications.


Seventy...


Appendix 1

LEARNING ACTIVITY DIARY INSTRUCTIONS

The following details my outline on the phone. The aim of this study is to try to understand the learning that occurs in the farm household, whether it is related to farming or not. It will involve identifying the nature and extent of learning activities undertaken by farming couples, their reasons for undertaking them and the resources they use.

Learning Activities

In participating in this study I have asked you to record your deliberate learning activities. A learning activity is what researchers use to measure learning.

Learning occurs as a person becomes more informed about a situation. Learning activities emerge from circumstances that require a deliberate effort on your behalf to become involved in a "challenge" or some sort of change from your normal routine. They may involve you in talking, reading, observing or thinking about the subject.

The learning activities you record will be those foremost in your mind over the next few weeks. It doesn't matter whether they result from;

- problem solving situations;
- seasonal activities;
- or purely out of interest.

They may require;

- organising people;
- familiarising yourselves about a specific or general topic;
- or developing a skill.

So what is a learning activity?

Definition of a Learning Activity:

An activity involving;

- deliberate effort;
- with a clear focus;
- to gain skills and/or knowledge and;
- (for my research) totalling 7 hours or more over a period of time.
If unsure whether an activity is a learning activity then ask yourself this question:

What did I/we gain from doing this?

- knowledge?
- understanding?
- a skill?

If the answer is yes to any of these then it was a learning activity.

The following is an example; buying another car.

1) thinking about buying another car (for several weeks) ..................... 2-3hrs
2) talked about it with my partner ....................................... 1hr
3) walked around a couple of sale yards and talked to the dealers while in town one day 2hrs
4) talked with some friends at the community picnic/pub/sports club over a few weeks . 2hrs
5) went to a car auction one Wednesday afternoon while in town ................ 2hrs
6) spent a Saturday afternoon checking cars in town advertised in "The Press" ...... 3-4hrs
7) visited the bank manager ........................................ 30 min

Activity 1 may have resulted from several thinking "episodes" over a period of time since the formation of the idea. The reflecting and pondering "episodes" result in the person understanding their situation more fully. They can then make appropriate decisions regarding buying a car.

Activities 2-7 involve information gathering about buying a car. This is learning because it takes into consideration the opinions and knowledge of partners and family, friends, the car market and various professionals like car dealers and the bank manager (for financial advice).

All the times are guestimates/approximations of how much time was spent on the subject of the learning activity. This activity totalled seven hours over several weeks. Others may dominate your time, for example buying more land or coping with a death in the family. Some may require changes in effort during a longer time span e.g raising children.

Recording Your Learning Activities

The diaries are to record the learning activities you do over the next few weeks. How you record your activities is generally up to you. Recording should take only a few minutes if done daily. Whether you do it by subject (like that above) or daily or weekly will depend on how much time you wish to devote to recording. What is important is what you learn about, who or what you used to help you learn about the subject, and the approximate time spent learning about that subject. If you also have time, please note the reason for your learning activity. This gives an insight into your motivation to learn.

You may find that you think about lots of subjects during the day but were unaware of how much time each involved. In writing the subjects down you will have a better idea of what you think about and how often. Some subjects may appear regularly and you may decide on an amount of time upon reviewing your diary.
Besides farming there are other areas of your life where learning activities will be occurring and a list of such subjects has been supplied.

It will be easier recording now than if we recall them in February. Over the page is an example of how daily recording might be done.

Learning activities for week starting 25/11

* shared activity with partner (please check with your partner !!)

<table>
<thead>
<tr>
<th>Subject (and Reason)</th>
<th>Who/What (Resources)</th>
<th>Time (1/2 hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date 25/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field day; soil, minerals and livestock *</td>
<td>CRI Lincoln, vets, scientists, advisors, various pamphlets</td>
<td>8 hours including travelling time</td>
</tr>
<tr>
<td>Date 26/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>organising community party</td>
<td>I phoned six others</td>
<td>30 min</td>
</tr>
<tr>
<td>(responsibility of social committee)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>computing * (to do the books</td>
<td>manual, me and partner</td>
<td>2 hours</td>
</tr>
<tr>
<td>- it was raining)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>buying more land (property for sale down the road)</td>
<td>Me, partner, dad, neighbour</td>
<td>1 hour talking (approx)</td>
</tr>
<tr>
<td>House renovations *(roof leaks - birthday promise for partner !)</td>
<td>books, partner, and TV show</td>
<td>1 hour</td>
</tr>
<tr>
<td>Date 27/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buying more land *</td>
<td>discussed it with partner</td>
<td>30 min</td>
</tr>
<tr>
<td>Kite fishing (for West Coast trip)</td>
<td>all at discussion group meeting this afternoon at Joe Bloggs property</td>
<td>4 hrs</td>
</tr>
<tr>
<td>Rewriting will</td>
<td>Solicitor, Partner, Parents</td>
<td>2 hrs</td>
</tr>
<tr>
<td>New insurance scheme</td>
<td>Insurance Agent</td>
<td>45 min</td>
</tr>
<tr>
<td>Pregnancy testing</td>
<td>Ag Research pamphlet and guest speaker</td>
<td>2 hrs</td>
</tr>
</tbody>
</table>

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Subject of Learning Activities

These are a list of topics that you might be learning about. Topics for learning are endless and depend entirely on the individual.

Farm-Related

- Any learning related to the running of a farm.
- Any business or trade skills;
  - budgeting;
  - record keeping;
  - running an office.
- Any technical subject matter;
  - nutrition;
  - genetics;
  - pasture improvement;
  - wool production.
- Includes; field days, discussion groups, young farmers tours, A&P Shows

Hobbies and Recreation

- Athletics and sports;
  - cricket;
  - rugby;
  - swimming;
  - gymnastics.
- Music, singing, playing a musical instrument.
- Dancing.
- Art, drawing, painting.
- Crafts, like - woodwork.
- Collecting things;
  - stamps;
  - rocks.
- Photography.

Religion, Morals, and Ethics

- Church.
- Bible Study.
- Choir Practice.
- Running the Church.

General Education

- Any subjects that you take in school, e.g: School Certificate, Sixth Form Certificate
- Any subjects that you take in University or Polytech.

Home and Family Life

- Building and fixing a house; like:
  - carpentry;
  - plumbing;
  - painting.
- Cabinet Making.
- Masonry.
- How to be a better parent.
- School.
- Behaviour of children.
- Family Planning Clinic.
- Court and Law.
- Money; banking; savings; insurance; money handling; mortgage; inheriting money; property; taxation.

- Gardening - planting vegetables; trees; flowers.

- Car - repairs and maintenance; driving (e.g. Defensive Driving Course).

**Personal Development**

- Sickness, medicines, health.

- Dealing with a family crisis (death, divorce).

- Dieting, watching your weight.

- Exercise, muscle building.

- Clothing.

- How to get along with men/women.

- Leadership, basic education classes.

**Current Events and Citizenship:**

Public and political - things happening in New Zealand and overseas.

- Capitalism and socialism.

- Voting and party politics.

- Community problems.
<table>
<thead>
<tr>
<th>Subject (and Reason)</th>
<th>Who/What (Resources)</th>
<th>Time (1/2 hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week starting 22/11/93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2
DATA GATHERING INSTRUMENTS

Introductory Interview:
Couple Nomination and Social Networks

Couple: Nominated by:

Nominated:

How did you get to know the couple that choose you?

How often do you see them? (as a couple and singularly)

Why did you choose the couple you did for the survey?

How did you first get to know them as a couple?

How often do you see the couple you nominated?

Would you have nominated another couple if the sample area had included the rest of the valley? (was this couple your first choice)
Main Interview:

The Content, Process, and Interaction Associated with Learning Activities

Introduction

When we last met I explained that my research involved finding out what people learn in a rural community. This interview will concentrate on the learning activities you have done over the past year. This includes activities that started before you starting writing in the diaries. I am interested in your individual activities and the activities you shared together over the past year.

Firstly, we will list all the activities that you have identified as meeting the learning activity criteria over the past year. These will be divided into individual and shared activities. All will have their times, status and duration recorded. They will also be examined about their initiation, goals, planning and information resources.

The second part of the interview will involve five questions relating to how you evaluate your learning and we then explore the learning you do with your partner and with others in your community.

Conducting the Interview

Right now I’d like to explain that there will be times during the interview when I’ll cut you off or seem pushy. For the purposes of research we need to keep focused on the information I am after. This will also ensure that the interview doesn’t drag on unnecessarily.

Recalling Learning Activities

As I explained at our last meeting everyone learns, but different people learn different things and in different ways.

When I say "learn" I don’t mean just learning the sorts of things that people learn in schools. I mean any sort of effort at all to learn something, or to learn how to do something. Perhaps you tried - to get some information or knowledge
- or to gain new skills or improve old ones
- or to increase your understanding.

In reflecting on what you have recorded in your diaries can you think of any efforts to learn that you’ve made since January 1993?
Replicated Section

A) List Learning Activities

We’ll use some prompts to help recall activities from earlier last year. I will write down the learning efforts as you think of them. Don’t worry, it usually takes a while to remember your learning efforts.

General Probes

Try to think back over the last year -- to January 1993. I am interested in any effort you made to learn anything at all. Anything at all can be included, regardless of whether
- it is big or small
- easy or hard
- important or unimportant
- serious or fun

It doesn’t matter when you started to learn, as long as you have spent at least 7 hours at it sometime since last January.

I want to get as complete list as possible, because people make far more attempts to learn than anyone realises. We can include any sort of information - skill - or understanding at all that you have tried to gain - just as long as you’ve spent at least a few hours at it sometime during the past 12 months. Can you recall anything else?

Chronological Probe

Some of your learning efforts could have been related to highlights in your life since January 1993, for example
- moving, buying a new house, children, a new baby in the family...
- improvements on the farm, stock, pastures, buildings, vehicles...
- it could be more personal like health, diet, sport, travel, clothing....
- maybe a social role involving community responsibility, scouts, church, local government...

Can you think of any that we haven’t already listed?

Content Probe

Check demographic sheet - Hobbies and Clubs with the respondent.

People forget some of their learning activities. Please check the list I sent you of the different things that people learn. I don’t expect that you will have learned everything on this list - its just to help you remember some learning we may have missed.
Nature and Extent

Now we’ll list all the activities that fall into a learning activity category. This will tell me the content of your learning activities. Then we’ll look at each activity individually.

B) Have you completed this activity?

C) Did you reach your objective?

   Yes, I reached my objective.

   No, I dropped it before completing it and don’t intend continuing with it.

D) How long has the activity been active?

   When did you start this activity?

   Prompt; 1... 2... 3 months... years ago

E) And how much time did you spend on it last year?

   More or less than seven hours?

   Prompt; a day, week, a couple of days in the last six months?

F) What we have been focusing on is the learning activity. Now I would like to focus on learning episodes. Learning activities consist of learning episodes which are the "building blocks" of the activity. There are four descriptions of learning episodes. Of the following how would you describe the learning episodes in this activity?

   on-going, seasonal, cyclic, random

Qualitative Section

Reasons

G) Why did your learning activity begin?

Rephrase: What initiated the activity?, how did it start?

Prompts: Situational, an idea, accidental, tedium, puzzlement, dilemma, curiosity, interest, need, deficiency, variety, desire, habit, impulse
H) How has learning helped in reaching your goal?

Rephrase: How has learning over the past year helped in reaching your goal?

In what way, I mean, what did you need to go through to reach your goal?

In becoming more aware of issues relating to your goal - how did that help in reaching your goal?

Prompts: Develop something, change of direction, expansion of some aspect, removal of some aspect, familiarity, generate, competency, enrich, relieve, modify, cultivate, evolve.

Planning

Planning involves the organising of learning in an activity

J) How did you go about organising your learning?

Rephrase: How did you organise and plan your learning?

How did you know what direction to take to achieve your (learning) objective?

Prompts: Talk to people, read books, observe your neighbour, sat down and put something together, was it organised?

K) What factors influenced the way you organised your learning?

Rephrase: And what factors influenced how you went about that?

Was there anything at all that influenced the way you planned this activity?

Prompts: Was there anything you had to work around, or incorporate with this activity, available resources, time, set dates, own knowledge?

Information

This involves the subject matter of what you were learning.

L) When you needed information where did you go to get it?

Rephrase: Where did you go, Who did you see, What did you use?

Did you need go anywhere for information for this activity?

Prompts: Self, friends, books, media, field days.
M) What things other than information did you need for you to learn in this activity?

Rephrase: What else did you use besides information in your learning?

What other things besides information did you use in getting to your goal?

Prompts: Technology, computer, T.V, raw materials

Evaluation

We all evaluate our learning in different ways. Thinking back over the activities we’ve already discussed;

N) How did you know you were making progress with your learning in reaching your goals?

Rephrase: How did you check you were learning what you needed to, in order to reach your goal?

Prompts: Conversations with others, reading, self reflection?

Shared Learning

I’d like to explore the roles that each of you and other members of your community have played in your learning over the past year.

In focusing specifically on the shared activities;

P) Under what circumstances did you collaborate as a couple on an activity last year?

Rephrase: What was it about your situation that made you share your learning?

What brought you together to learn and share an activity?

What dictated this being a mutual concern?

Prompts: Scope of learning, accidental, lack of resources, timing, interests, efficiency, understanding?

Q) How did you collaborate?

Rephrase: How did you organise the learning between you?

Did you do all the activity together or did you have separate activities that each undertook?
Community

Again thinking back over these activities;

R) Under what circumstances did you involve people in your community in your learning activities last year?

Rephrase: You’ve involved various people in the community in your learning activities. What was it about this activity that made you contact other local people?

what initiated you to involve others besides your partner in your learning activities last year?

What aspects in particular did they help you with?

Prompts: Guidance, share learning, reassurance, enjoyment, interest?

S) How did you involve them?

Rephrase: What aspects in particular did they help you with?

Prompts: Planning, questions, activity?

That is the end of the interview. I’ve greatly appreciated your time. But before I leave I’d like to ask for your opinion on how comfortable you felt during my interview.

How could I improve it for the next couple?

Thank you
Follow-up Interview:
Couple Learning and Community Learning

A) When would you choose to contribute in one of your partner’s learning activities?

Rephrase: When or what issue would encourage you to take part in your partner’s learning?

Prompts: Money, time wasting, stress

B) Can you describe any differences in the way you conduct your individual learning activities from your shared ones?

Rephrase: How is learning different between shared and individual activities?

Prompts: Can you describe your relationships with your partner/friends/tradespeople/professionals in shared versus individual activities?

Describe your use of books/TV/radio/videos

Describe your use of "trial & error" learning

C) Compare the skills have you developed through doing shared activities with those of individual ones?

Rephrase: How do you compromise/accommodate any conflicts you have about your learning activities?

Prompts: - who gives in - on what grounds.

regarding content, outcomes or method of learning.

D) How has living on a farm affected the development of these skills?

Rephrase: What aspects about your lifestyle influence the way you undertake learning activities?

Prompts: Farm profits, independence (as a couple), working outside, isolation from services.
E) You nominated Y & Z for this research...

   How influential or important were they in any of your learning activities last year?

Rephrase:  **What contribution did they bring to your learning?**

F) What characteristics enable someone to be influential as a local learning resource?

Prompts:  knowledgeable, cynical of professionals, ability to reason using local rationale.
**Sample Demographic Sheet**

<table>
<thead>
<tr>
<th>Couple.</th>
<th>Years cohabitating.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male.</td>
<td>Female.</td>
</tr>
<tr>
<td>Highest educational qualification.</td>
<td>Highest educational qualification.</td>
</tr>
<tr>
<td>How would you describe your school years.</td>
<td>How would you describe your school years.</td>
</tr>
<tr>
<td>Success at school.</td>
<td>Success at school.</td>
</tr>
<tr>
<td>School age aspirations.</td>
<td>School age aspirations.</td>
</tr>
<tr>
<td>Years involved with agriculture.</td>
<td>Years involved with agriculture.</td>
</tr>
<tr>
<td>Other occupations.</td>
<td>Other occupations.</td>
</tr>
<tr>
<td>Years spent in the community.</td>
<td>Years in the community.</td>
</tr>
<tr>
<td>List local clubs, organisations or groups you attend.</td>
<td>List local clubs, organisations or groups you attend.</td>
</tr>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
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<tr>
<td>3.</td>
<td>3.</td>
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<td>4.</td>
<td>4.</td>
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<tr>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
<td>7.</td>
</tr>
</tbody>
</table>
Appendix 3

ANALYSIS OF SDL COMPONENTS BY ACTIVITY OWNERSHIP

Table 1

Frequencies of SDL Activity Descriptions

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Mens' N=86</th>
<th>Womens' N=66</th>
<th>Joint N=13</th>
<th>Total N=165</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation</td>
<td>46</td>
<td>9</td>
<td>3</td>
<td>58</td>
</tr>
<tr>
<td>Home/Family</td>
<td>8</td>
<td>20</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>Hobby/Recreation</td>
<td>5</td>
<td>18</td>
<td>-</td>
<td>23</td>
</tr>
<tr>
<td>Community Service</td>
<td>15</td>
<td>8</td>
<td>-</td>
<td>23</td>
</tr>
<tr>
<td>General Education</td>
<td>11</td>
<td>6</td>
<td>-</td>
<td>17</td>
</tr>
<tr>
<td>Personal Development</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Religion</td>
<td>-</td>
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<tr>
<td></td>
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</table>

Table 2

Frequencies of SDL Activity Time

<table>
<thead>
<tr>
<th>SDL Activity Time (Hours)</th>
<th>Men</th>
<th>Women</th>
<th>Joint</th>
<th>Total N=165</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 21 hours</td>
<td>50</td>
<td>28</td>
<td>3</td>
<td>81</td>
</tr>
<tr>
<td>21-99 hours</td>
<td>24</td>
<td>22</td>
<td>3</td>
<td>49</td>
</tr>
<tr>
<td>Greater than 99 hours</td>
<td>12</td>
<td>16</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>165</td>
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</tbody>
</table>

Table 3

Frequencies of SDL Incentives

<table>
<thead>
<tr>
<th>SDL Incentives</th>
<th>Men</th>
<th>Women</th>
<th>Joint</th>
<th>Total N=165</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>39</td>
<td>8</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>Social (Household)</td>
<td>8</td>
<td>24</td>
<td>10</td>
<td>43</td>
</tr>
<tr>
<td>Social (Acquaintances)</td>
<td>26</td>
<td>11</td>
<td>-</td>
<td>36</td>
</tr>
<tr>
<td>Personal Incentives</td>
<td>13</td>
<td>23</td>
<td>-</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>165</td>
</tr>
</tbody>
</table>
### Table 4

**Frequencies of Benefits from SDL Activities**

<table>
<thead>
<tr>
<th>Benefits from SDL</th>
<th>Men</th>
<th>Women</th>
<th>Joint</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unanticipated Insights</td>
<td>29</td>
<td>35</td>
<td>6</td>
<td>70</td>
</tr>
<tr>
<td>Learning Directives</td>
<td>35</td>
<td>11</td>
<td>5</td>
<td>51</td>
</tr>
<tr>
<td>Personal Skills</td>
<td>15</td>
<td>19</td>
<td>1</td>
<td>35</td>
</tr>
<tr>
<td>Unsure</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>165</td>
</tr>
</tbody>
</table>

### Table 5

**Frequencies of the Form of Assistance**

<table>
<thead>
<tr>
<th>Form of Assistance</th>
<th>Men</th>
<th>Women</th>
<th>Joint</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation</td>
<td>62</td>
<td>41</td>
<td>13</td>
<td>116</td>
</tr>
<tr>
<td>Facilitation</td>
<td>13</td>
<td>17</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Cooperation</td>
<td>8</td>
<td>6</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>No Assistance</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>165</td>
</tr>
</tbody>
</table>

### Table 6

**Frequencies of the Form of Consultation**

<table>
<thead>
<tr>
<th>Form of Consultation</th>
<th>Men</th>
<th>Women</th>
<th>Joint</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal</td>
<td>55</td>
<td>42</td>
<td>11</td>
<td>108</td>
</tr>
<tr>
<td>Non-formal</td>
<td>12</td>
<td>10</td>
<td>-</td>
<td>22</td>
</tr>
<tr>
<td>Formal</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td></td>
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<td>143</td>
</tr>
</tbody>
</table>
### Appendix 4

#### Sample Description

<table>
<thead>
<tr>
<th>Couple</th>
<th>Cohabitation (Years)</th>
<th>Number of Dependents</th>
<th>Age</th>
<th>Formal Education</th>
<th>Description School Years</th>
<th>School Success</th>
<th>School Age Aspirations</th>
<th>Years in Agriculture</th>
<th>Years in Community</th>
<th>Local Clubs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21</td>
<td>2</td>
<td>41</td>
<td>School Certificate</td>
<td>Laid back</td>
<td>Minimal</td>
<td>Travel, Nursing</td>
<td>All my life</td>
<td>18</td>
<td>Tennis, Golf, Community Care, Farm Discussion Group, Garden Club, Black &amp; Coloured Sheep Association.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>47</td>
<td>Bachelor of Agriculture Science</td>
<td>Enjoyed</td>
<td></td>
<td>Farms, Architect</td>
<td>29</td>
<td>18</td>
<td>Golf, Farm Discussion Group, Domain Board.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1</td>
<td>29</td>
<td>Sixth Form Certificate</td>
<td>O.K</td>
<td></td>
<td></td>
<td>4</td>
<td>2</td>
<td>Tennis, Garden Club, Golf Club.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>43</td>
<td>3 years High School</td>
<td>O.K</td>
<td></td>
<td></td>
<td>28</td>
<td>All my life</td>
<td>Tennis, Farm Discussion Group, Rugby, Federated Farmers.</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>28</td>
<td>Enrolled Nursing</td>
<td>Good</td>
<td>Average</td>
<td>Travel Overseas</td>
<td>4</td>
<td>1</td>
<td>Tennis, Squash, Touch Rugby.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>Bachelor of Agricultural Commerce (1.5 years)</td>
<td>Good</td>
<td>Dux at Amuri Area High School</td>
<td>Pilot</td>
<td>All my life</td>
<td>21</td>
<td>Tennis, Rugby, Golf, Farm Discussion Group, Touch Rugby.</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
<td>2</td>
<td>30</td>
<td>Otago University (1 year)</td>
<td>Fun</td>
<td>Teams and activities</td>
<td>Career &amp; Marriage</td>
<td>10</td>
<td>10</td>
<td>Amuri St John Ambulance, Community Care, Play Centre, Parent/Teacher Association.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>38</td>
<td>University Entrance</td>
<td>Enjoyable</td>
<td>Accredited University Entrance</td>
<td>Veterinary Science</td>
<td>20</td>
<td>All my life</td>
<td>Golf, School Board Treasurer, Farm Discussion Group, Amuri A&amp;P Marshall.</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>1</td>
<td>30</td>
<td>University Entrance</td>
<td>Enjoyed</td>
<td>Average</td>
<td>Nursing</td>
<td>Most my life</td>
<td>6</td>
<td>Netball, Plummet, Golf.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>Diploma of Farm Management</td>
<td>Could have been worse</td>
<td>UE in four subjects</td>
<td>Farming</td>
<td>All my life</td>
<td>All my life</td>
<td>Rugby, Squash, Golf.</td>
</tr>
</tbody>
</table>

1 Couples are presented in order of nomination. This order does not correspond with the letters used to identify couples throughout this research.
<p>| | | | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>3</td>
<td>1</td>
<td>28</td>
<td>Bachelor of Arts</td>
<td>Fun</td>
<td>U.E</td>
<td>Teaching</td>
<td>4</td>
<td>3</td>
<td>Plunket, Netball, Farm Discussion Group.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Sixth Form Certificate</td>
<td>Fun</td>
<td>---</td>
<td>Farming</td>
<td>All my life</td>
<td>All my life</td>
<td>Rugby, Collie Club, Farm Discussion Group.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>0</td>
<td>37</td>
<td>Overseas Economist</td>
<td>Enjoyed</td>
<td>Average</td>
<td>Film Maker, Aid worker Africa</td>
<td>Born on a farm</td>
<td>6</td>
<td>Netball, Book Discussion Group, Garden Club.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Diploma of Agriculture</td>
<td>Sports more fun</td>
<td>1st XV (Rugby), U.E Accredited</td>
<td>Farmer</td>
<td>All my life</td>
<td>All my life</td>
<td>Rugby, Cricket, Dog Trials, A&amp;P show², Farm Discussion Group.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>1</td>
<td>0</td>
<td>33</td>
<td>Registered Nurse</td>
<td>Fun</td>
<td>---</td>
<td>Nurse</td>
<td>All my life</td>
<td>Most of life</td>
<td>Netball, Garden Club.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Attended Lincoln College</td>
<td>Social Time</td>
<td>---</td>
<td>Farmer</td>
<td>All my life</td>
<td>All My life</td>
<td>Rugby, Collie Club, Farm Discussion group, A&amp;P Committee.</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>2</td>
<td>0</td>
<td>32</td>
<td>University Entrance</td>
<td>Good</td>
<td>Average</td>
<td>Radiographer</td>
<td>All my life</td>
<td>2</td>
<td>Garden Club.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>31</td>
<td>University Entrance (UK)</td>
<td>Good</td>
<td>Average</td>
<td>Veterinarian, been a builder</td>
<td>25</td>
<td>15</td>
<td>Squash, Farm Discussion Group.</td>
<td></td>
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</tr>
<tr>
<td>10</td>
<td>22</td>
<td>1</td>
<td>47</td>
<td>University Entrance</td>
<td>Enjoyed</td>
<td>In Sports</td>
<td>Teacher</td>
<td>23</td>
<td>24</td>
<td>Golf, Church, Plunket, Library, Women's Fellowship.</td>
<td></td>
<td></td>
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<tr>
<td>46</td>
<td>University Entrance</td>
<td>O.K</td>
<td>In Rowing</td>
<td>Motor Racing</td>
<td>38</td>
<td>27</td>
<td>Church, Car Club, Farm Discussion Group.</td>
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</tr>
<tr>
<td>11</td>
<td>24</td>
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<td>43</td>
<td>3 years High School</td>
<td>Satisfactory</td>
<td>Average</td>
<td>Teacher</td>
<td>15</td>
<td>2</td>
<td>North Canterbury Rugby Football Committee, Farm Discussion Group, Local Rugby.</td>
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<td></td>
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<tr>
<td>46</td>
<td>3 years High School</td>
<td>O.K</td>
<td>Average</td>
<td>Farmer</td>
<td>All my life</td>
<td>2</td>
<td>North Canterbury Rugby Football Committee, Farm Discussion Group, Local Rugby.</td>
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<tr>
<td>12</td>
<td>8</td>
<td>5</td>
<td>27</td>
<td>Sixth Form Certificate</td>
<td>Happy</td>
<td>Average</td>
<td>An enjoyable job</td>
<td>10</td>
<td>9</td>
<td>Plunket, Play Centre, School, Toy Library, Community Fund Raising.</td>
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<tr>
<td>44</td>
<td>School Certificate</td>
<td>Average</td>
<td>Best at Sports</td>
<td>Farming</td>
<td>30</td>
<td>22</td>
<td>Amuri Lime Co Director, Farm Discussion Group, Church &amp; School Working Bees.</td>
<td></td>
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</tbody>
</table>

² The Agricultural and Pastoral Society organises local fairs for the exhibition of stock, crops and other agriculturally associated goods and services.