MOTIVATIONAL AND CONTEXTUAL INFLUENCES IN THE DECISION OF FEMALES TO STUDY EDUCATION EXTRAMURALLY

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ABSTRACT

In order to determine the motivational factors influencing adult female extramural education students (FEES) to decide on a course of study at Massey University, a pilot study was carried out. From an analysis of this, a questionnaire was designed which covered demographic variables, reasons for studying education, satisfaction with life, satisfaction with the choice of education as a subject, predisposing factors that helped to create or maintain motivation to enrol, barriers in the decision not to enrol at an earlier time, events that enabled enroling, frustrations involved with studying extramurally, positive effects of extramural study, changes in the original motivation, and the coinciding of life events, the decision to study and changes in values. In order to establish whether motivations of FEES related to personality types, the Myers-Briggs Type Inventory was also administered. The sample of 170 ranged in age from 19 to over 50 and included males as a comparison group (MEES). The research aimed to find out what general motivations underlay FEES' decisions to study; in what ways did FEES motivations differ from MEES motivations; what the frustrations and positive effects of extramural study were; whether FEES motivations to study had changed since the decision was made to study; and whether there was any link between the decision to study, the coincidence of a life transition and the formation of new values. An analysis of variance for the demographic variables showed the immensely heterogeneous nature of

the sample and its effect on the motives for studying. Results showed that the major motivation for FEES was to gain knowledge and for personal interest, while for MEES it was to gain a degree. The main motivational change for FEES was to attain a degree, while for males it was completing the degree that had been started. The life transition that coincided with the decision to study was starting work, getting a new job, and job promotion for both FEES and MEES. The main value formation for FEES was growth in independence, while for MEES it was understanding the differences and reactions of others. Results showed that some personality types were related to various motivations. The most frequent Myers-Briggs psychological type that occurred was ISTJ. Finally the study made reference to the frustrations of extramural study and their subsequent importance for educators of extramural students.

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Chapter One

INTRODUCTION

"When I started studying, it was to prove to myself that I could do it. I chose Human Development because I was anticipating to have a family."

(Ann[1], 35)

"I started to study after my first child was born, to give my brain some stimulation. All those nappies and feeding routines - I felt I was a machine. So I chose Education because I was a trained teacher."

(Pat, 44)

"Extramural study was something I had no choice over. It was the only way I could finish my degree in a year and live in another place."

(Susan, 20)

The present study explores some of the reasons that women have given as to why they participate in Massey University extramural education papers, and also their frustrations and benefits from study. One might easily assume that it was in order to improve their education. However this response is both uninformative and circular. As can be seen from the above three quotes, there is a lot more to the reasons why female extramural students take up studying. Instead of merely asking why

[1] Names have been changed to protect identity

females choose to study education extramurally, one can ask more important and meaningful questions as to why do they want to improve their education and what have they gained, or hope to gain by their study.

This thesis has endeavoured to shed some light on the motivations of female extramural education students (FEES), the study of which was generated by four factors:

a) the general lack in New Zealand literature on motivations for participation.

b) lack of New Zealand research on outcomes of participation in extramural studies

c) the rising numbers of FEES

d) the growing importance of adult development

With the lack of research into FEES and the current emphasis on equal employment opportunities, this study could be timely in allowing for a better understanding of why so many women are studying education extramurally. Further examination of reasons for study could perhaps lead to course structures that cater more precisely to needs of FEES - combining roles, juggling careers, study and family commitments and child-care arrangements.

[1] Names have been changed to protect identity

With reference to Sheehan's (1987) study on the position of women in education, it is apparent that women are under-represented in the top positions in the New Zealand education system. Ponter (1989) reports figures showing 52% of male academics and 18% of female academics are senior lecturers. In 1991, the position remains unchanged. The NZEI report on the Role of Women in the NZEI to the annual meeting 1991 states that of all the positions held by women in the Primary Service, 24% are Principals , 42% are Deputy Principals, 85% are Assistant Principals, 68% are Senior Teachers and 86% are teachers.

The same gender imbalance has been documented worldwide and is an area in which there is an increasing awareness. Through the United Nations Decade for Women (1976-1986) a new emphasis has been placed on developing strategies to improve the status of women, to enhance their productivity and rewards, and to increase their participation in a variety of activities. The need for radical change in education and in educational administration was particularly recognised. The Davies 1986 study has noted that there is a hidden gender bias, as well as a top-down tendency within the fabric of educational administration studies. Leadership studies have inevitably mainly involved male subjects (and male researchers), so that male perspectives and values are likely to be conveyed in the resulting conceptualisations.

The present study was also borne out of a high personal interest as I have studied education extramurally through Massey University for eight years. During the course of my study, I have met and talked to many women about their study, and the things related to it. The more women I have talked to, the more I have realised that there are common elements and motivations underlying their study. I have often wondered whether the motivations are the same for the different age groups, whether they are different for men, and whether the motivations change over the course of the study. During on-campus courses most of us discuss "just why are we putting ourselves through this anyway?" The fun consensus appears to be one of masochism! However this has set me to seriously consider the motivations that women have to study extramurally, and how and why women juggle their careers and families in order to study. Because of my own experiences and their commonality with other FEES, I began to wonder why education attracts so many female students, and whether there is a common set of values among these women.

Indeed then, the particular study will be of interest to FEES (and male extramural education students -MEES). The topic will also be pertinent to the University's commitment to its Equal Opportunities goals under the terms of the 1988 Education Amendment Act, with its requirements to formulate EEO policies - particularly in regard to a disadvantaged group such as women. As a result of the 1987 Watts Report, the Status

of Academic Women's Committee has formulated a programme designed to balance the University's commitment to improving the career advancement of academic women, with the requirement to maintain scholarship as the primary pathway to senior positions. A programme is also being considered to encourage women to pursue postgraduate study.

THE AIM OF THE PRESENT STUDY

This is a follow-on from the Wilson (1986) study on the status of academic women in New Zealand, and from the Ponter Report on the Status of Academic Women at Massey University. (Ponter, 1989) The women (and men) who took part in the study may well be part of the academic staff in future years at Massey University. With this in mind the present study is pertinent to extramural learning, particularly with the aim of the committee to provide more highly qualified women in the workforce. The main thrust of the present study will interest those very women who have taken part in the study and has an emphasis on an emancipatory-type of social research which calls for the empowerment of the researcher and the researched. This can enable people to change by encouraging self-reflection and a deeper understanding of their particular circumstances.

Therefore the aim of the study was to explore what motivates FEES to study, and to group these accordingly. It was expected that each

grouping of motivations would have a high correlation with a particular value type as measured by the Myers-Briggs Type Indicator, with the strongest correlations being found between the two areas of job advancement and educational advancement. It was also expected that motivations would differ over the age groups, and change during the course of study. Finally it is anticipated that the present study would give voice to adult learners and inform administrators what FEES hope to achieve through their study.

Chapter Two:

ADULT DEVELOPMENT AND THE ADULT FEMALE LEARNER

The Ecology of Human Development

In any research concerning the actions and reactions of humans, it is necessary to take a contextualised approach beyond mere observations. Bronfenbrenner (1979) emphasises the crucial importance of studying the environments in which we behave if we are ever to break away from particularistic descriptions and unsatisfactory processes. He states that what people do is to be found in interactions between characteristics of people and their environments past and present. In order to change behaviour, the environments must be changed because the main effects are in the interactions of people. The developing person is not viewed merely as a blank object on which the environment makes an impact, but as a "growing dynamic entity that progressively moves into and restructures the milieu in which it resides" (p21) The environment also exerts its influence. This is seen as a reciprocal act between the person and the environment, which incorporates many settings in a concentric structure. Bronfenbrenner suggests that research seldom pays attention to the person's behaviour in more than one setting, or to the way in which relations between settings can affect what happens in them. He states that rarely does research recognise that environmental events and conditions outside any immediate setting containing the person can have a profound influence on behaviour and development within that setting.

The interactive process must also continue into the researcher as well as the researched and the research itself. Lather (1986) suggest that emancipatory social research calls for empowering approaches to research. This offers a powerful opportunity for praxis (which is reciprocal) to the extent that the research process enables people to change by encouraging self-reflection and a deeper understanding of their particular situations. This reciprocity is emphasised by Smith (1988), who states that research and evaluation can be very important to the extent that they allow us to ask different questions of ourselves and to conceptualise things in different ways, using a different language to discuss our problems. Smith makes the point that these results are no more interpretation-free or resistant to personal discernment than are the accounts of lay-persons. Finally, Bronfenbrenner argues that further advance in the science of human development requires a description of developmental processes as a function of systematic properties of the ecological contexts in which they take place. To do this researchers need to look on the research setting as a central object of study that invariably affects the processes being observed, hence shedding light on the environmental forces that steer the course of human development.

Life-span Development Theory and Women

There is a relatively recent trend in Human Development studies to focus on the period of adulthood. With the rapidly changing population balance in the world, focus has been placed on adult development and

aging. As members of the post-war baby boom move closer to fifty (and their parents develop a style of life that fits none of the cultural stereotypes of old age), a concept of the development that stops at maturity does no longer fit the adult experience. Recent thinking shows that aging is not simply a process of decline, nor is development exclusively a process of growth. Perlmutter and Hall (1985) suggest that a recent surge in the enrolment of adults in formal education is the result of a change in the age structure of society, rising educational levels among older adults, accelerated rates of change in all areas of life, the development of new occupational patterns and the re-entry of middle-aged women into the workforce. With a rapidly changing knowledge and technology, most adult skills would become outdated without continual learning.

Until recently, most psychologists have assumed that adults reach a "learning plateau" at 20 or 21, remain stable until late middle age and then learning deteriorates. Billington (1990) states that with the recognition of the need for lifelong education, an awareness has emerged that significant learning and personal development go hand in hand. Indeed, a major theme of a growing number of psychologists is that development must be the primary goal of education, (Dewey, 1963: Piaget, 1967; Rogers, 1969; Perry, 1981; Kurfiss, 1983; Daloz, 1986), with the belief that development is stimulated by education of the right kind. Marsick (1988) states that even in the workplace "learning for

organisational productivity cannot be separated from learning from personal growth."

Life-span development and its implication to adult development has traditionally been male-oriented, which has contributed to the concept of the "invisibility" of women. Developmental theorists have adopted the male life as the norm on which to base their observations. Erikson's theory of a progression through various age-related stages of development and crises displays differences between men and women, but defines it by the male experience. This is confirmed by Gilligan (1982), who points out the contradictions encountered in adolescence (Identity v Role Confusion) and early adulthood (Intimacy v Isolation). She states that while for men, identity precedes intimacy and generativity in the cycle of human attachment and separation, for women these tasks appear instead to be bonded. She adds that intimacy does go along with identity as the female comes to know herself as she is known, through her relationship with others. However, in view of this fact, Neuwinger (1990), states that Erikson does not change the stages - identity continues to precede intimacy, in that development comes to be identified with separation and attachments seem to be developmental impediments.

Other developmental stage theorists such as Piaget (1967) address changes in the self - the way humans view, interpret and react to life.

Development is seen as a structural change in which the human develops through a series of structural reorganisations involving the whole person. Neuwinger (1990) observes that Piaget equates male development with child development, with differences being interpreted in terms of female deviance. Kohlberg's moral development stages are based on the development of 84 boys whose development has been studied for 20 years. Where men's development is said to lead to maturity, women's moral development is regarded as different. Levinson (1987) speaks of his theory of adult development as portraying the "seasons of a man's life" which was based on interviews with 40 men. The theory also describes the course of women's social and emotional development, but no women were interviewed. Neuwinger observes that women do not fit in the given age categories in Levinson's theory, and the variation of women's lives are not included. She sees the problem of the findings as not the gender differences, but the sexist biases involved in the process of research.

Holt and Neugarten (1982), have overcome some of the biases by including subjective reactions and the broader social-historical context, but it appears that women's experiences need to be re-interpreted in terms of their own imagery of relationships. Women's lives may be explained and predicted in this way by Peck's (1986) theoretical model, in which she describes it as a "social-historical time dimension representing the social, emotional and political context within which a

woman is allowed to define herself at any given point in time." (p282) The model attempts to illustrate the differences among women and the complexities that are peculiar to women's experiences. Neuwinger acknowledges that, while the model might reflect a traditional stereotyped view of women, it "reflects a reality according to our present knowledge." (p15)

Kahnweiler and Johnson (1980), observe that even although Levinson's et al (1978) work focuses on the lives of men, it provides a structure that may eventually help to explain the adult development of women. According to Levinson, the return to learning later in life implies that any changes and questioning of the self, are more likely to emerge during a transition period rather than a stable one. Levinson et al see the major tasks of this transition as reappraising the past, modifying the life structure and continuing the individuation process. Kahnweiler and Johnson (1980), found that the returning female student placed much emphasis on the future, with a reflection on goal achievement and the effect that ageing signals might have on future career prospects. They propose that it may be that the woman's attitudes at midlife corresponds more closely to that of the adult male whose primary goal is his career future. This appears to contrast with Levinson's idea of the midlife male transition, which involves the task of reappraising the past.

Women's Life Events and Extramural Study

Levinson (1978) and Vaillant (1987), agree that males emphasise the development of a work role early in adult life, with a shift in emphasis to relationships in midlife. For middle-class men, the usual sequence of events is to complete their education in their late teens and twenties, begin a career or job, get married and have children. The underlying principle even when males get married before completing their education or starting careers, is that marriage and children do not seriously interfere with either. Gilligan (1982) suggests that the conclusion for the above sequence for women is more variable than that for men and possibly may be quite different for different groups of women. She sees the sequence having been influenced by the increase of women in the workforce following World War 2 and the change in attitudes towards women having their own careers. Gilligan maintains that the priority that women place on considering relationships in making their decisions, may help explain women's sequences such as partial education, marriage, children, job, more education, and career. These sequences (which are more common for women than for men), indicate the emphasis of life events and relationships.

Blaukopf (1981) noted that a series of events rather than a single event occurred in women's lives to influence a decision to return to learning. The series of events were seen as occurring not within a specific time period, but rather occurring as part of an ongoing process which was

significant enough to cause a change in their self-perception. The three major life-change events that seemed to lead to reflection and introspection were death, separation and change in residence. These events were seen by Blaukopf to raise identity issues for women, who began asking the questions about what they wanted out of their lives and where they were going. At this stage, a return to study had not been contemplated, and it was not clear whether a return to education was a result of earlier events or a continuation of them. Blaukopf observes that women were imprinted with the message that girls didn't really need a higher education because major objectives in life for women were to get married, have children, raise them and remain within that role definition throughout their lives. However, with the rapid advancements in society and technology, a longer life-span and the emergence of the women's movement, women were confronted with 25-35 years of being outside the maternal role. Blaukopf notes that the disengagement from the procreational role is perhaps the forerunner to a psychological disengagement with the return to study. The women in Blaukopf's study experienced personal growth, changes in self-perception, a new sense of self-confidence, a growth in personal stamina and power, a sense of accomplishment, with the potential for autonomy as the most advanced stage of growth.

Kahnweiler and Johnson (1980) found that certain developmental concerns happened at various times in the return to study process,

indicating that the return may be part of a process rather a point-in-time experience. They investigated the "culminating event" idea in which the specific event occurring at midlife is interpreted to have a particularly significant meaning. Two general attitudes prevailed in their study - one of loss and dislocation and the other of self-development and renewal. It was found that the same life event was always interpreted by their respondents in different ways. This supports Levinson et al (1978), who observed that midlife adults distinctly attribute individual meanings to life events. Mohney and Anderson (1988) confirmed this in their study of the effects of life events on women's decisions to return to learning, finding that each woman had her own, idiosyncratic combination of enabling life-events that led her back to learning.

Potential Barriers For the Returning Female Student

Cross (1981), has identified three potential barriers that could discourage adults returning to study. These are situational barriers (those arising from one's situation in life at a given time), dispositional barriers (those related to attitudes and self-perceptions about oneself as a learner), and institutional barriers (those arising from college procedures and practices that exclude or discourage adults from enroling). A study by Iovacchini, Hall and Hengstler (1985), showed that major barriers in the return of adult students to study were cost, the conflict between job, home and study responsibilities, the availability of

suitable courses, the red-tape and administrative procedures, poor study skills, lack of energy, low self-esteem and a fear of going back to study.

Sperling (1991) in her study on the mature woman's access to higher education concentrated on the structural and attitudinal barriers with specific relation to women who have been away from the formal education system, and from the public, socio-economic sphere for some time. The barriers included such obvious things as adequate child-care facilities and timetables and time-frames that do not take their commitments and responsibilities into account. Sperling noted more subtle barriers such as a woman's enforced mobility or immobility due to a partner's employment pattern. She also observed barriers such as the lack of credit transfer in and between institutions of higher education, male "gate-keepers" and their discrimination against mature female students, the admissions process and logistical problems in meeting family requirements and travelling to the institution. In addition, Sperling noted that for many mature women, three years study is often too large a commitment to make for reasons that are out of the woman's control, such as domestic and personal crises with which women have to deal. Another potential barrier was that many returning students have been labelled or suffered failures as a result of their past educational experiences, giving rise to a low self-esteem and the fear of examination and formal assessment.

Adult Learning and Women Over Fifty

Billington (1990) stated that contrary to much of the literature on adult development, (Loevinger et al 1985) adults can and do experience significant personal growth after midlife. He found that students tended to experience growth only within the non-authoritarian environment that emphasised support, mutual trust and respect, and self-directed learning. He posited the hypothesis that as there is widespread agreement that a primary progression in adult development is movement from an extrinsic to an intrinsic locus of self-control, becoming a self-directed learner may trigger movement towards a greater intrinsic locus and hence toward a higher developmental level. Further research is suggested as the hypothesis could be true for all ages.

Hildreth, Dilworth-Anderson and Rabe (1983) in their study of the returning female over fifty, found that most ranked psychological reasons for returning to study, relating this to the decrease in self-identity that is often felt in women in this age category. The reported reasons for a return to study could be divided into two large groups - those whose ultimate goal was a career or employment, and those who wanted to study for general interest or finish a degree, but who had no intentions of seeking employment. Influencing factors to re-enter study appeared to be lack of child-care responsibilities and family support. Interfering factors were a spouse's or family's opposition to a return to study, spouse jealousy, distance and travelling and self-doubts. Hildreth

et al noted that the reasons for returning to study were similar to those women in the age category of 35 and over: job preparation, wanting to get a university degree, achieving independence and acquiring a sense of self-identity. The study showed that the need to be creative, responsible and knowledgeable does not decrease as a woman gets older.

Schonfield (1980), has found that if older adults are placed in situations that make them feel anxious or likely to fail, their performance may deteriorate far below their capabilities. Belluci and Hoyer (1975), studied female college students and female college graduates between the ages of 60 and 74 who either worked in the presence of a silent experimenter, or worked with one who told them that they were doing better than most people of their age. Whether young or old, those who heard their performance was superior, made higher scores than those women who worked in silence. An age difference appeared in the way the women judged their work. It was found that older women who lacked outside approval had less confidence in their performance.

New research is emerging on the liberating influence of learning on the older adult, with the indication that, in the absence of pathological conditions, no significant loss of intellectual functioning needs to be associated with ageing if the individual is cognitively stimulated through the lifespan. Neugarten (1980), found that adults who have been educationally active, suffer less decline in new learning situations. From

the study it appeared that learning skills can be established or re-established in adulthood and old age, but Neugarten noted that further research was needed to investigate which methods were more successful. A 20 year longitudinal Australian study of 60 to 98 year olds (Harwood, 1988), showed that the rate of decrement in intelligence scores over 20 years was less than 1% per annum in all age groups. Some individuals did not decline at all, with these people tending to be those who had participated in disciplined learning experiments. The key to determining whether education might have the potential for freeing society from the idea that old age and increased dependency go hand in hand, could lie in discovering whether cognitive challenge can be linked to continued good health in later life. Langer (1988), after considerable research with residents of nursing homes, has claimed the body begins to die as the mind ceases to deal with novelty, providing support for the hypothesis that improvement in health was due to an increase in mindfulness. Swindell (1991) notes that older learners have taken the initiative themselves and although population-based studies indicate that older adults are poorly represented in the spectrum of adult education, he states that there are strong indications that the magnitude of these age-related differences will diminish.

Chapter 3

REVIEW OF THE LITERATURE

New Zealand Research

There has been little, if any research in New Zealand on the motivational factors involving extramural students. A 1984 report by Tremaine and Owen discusses the characteristics of women students at Massey University and their reasons for their relatively high enrolment rate. The focus in the Tremaine and Owen report is on student motivation, course choice, career development needs and the attractiveness of off-campus study. They state that there appears to be many reasons why women study extramurally which relate to their life-stage and circumstances, ranging from using spare time purposefully, to an awareness of a lack of qualifications which may be needed for job promotion. A search of the literature shows that previous work has looked very broadly at the area of motivation and the returning female student. These studies are overseas-based, and consequently do not show a New Zealand perspective.

A New Zealand report to the Council Committee on the Status of Academic Women (Ponter, 1989), shows that research into the motivations of "re-entry women" is timely. Ponter states that changes in structures and legislation might be easier to bring about than changes in attitudes and prejudices to women who are academics. The university as

a social institution is reflective of the dominant assumptions and gender divisions in society. If more knowledge is gathered as to the motivations and experiences of FEES, then this may perhaps lead to a better understanding of women enrolled at university. The purpose of the report was to establish the then current situation of academic women at Massey University in the areas of discrimination against women, and gender and racial imbalance. The information from this provided a baseline for future policy directions in order to implement equal employment opportunities. The report originated from the Status of Academic Women Committee 1988, proposing that all academic women at Massey should be surveyed on a range of professional and other issues related to their work.

A report entitled How Fair is New Zealand Education by the Royal Commission on Social Policy (1987), noted that research into women in tertiary institutions is limited and fragmentary, dealing only with small groups. Questions were posed as to whether older women's interest in courses was to help them back into the workforce, or whether it was to gain better self-esteem. Other points raised were that it appeared to be mainly women from higher socio-economic groups that were attracted to continuing education courses and whether the fees were too prohibitive or child-care facilities were lacking. In 1988 the Royal Commission on Social Policy in Towards a Fair and Just Society, discussed the inequality between men and women in politics, education, business, paid and unpaid work and family life. The report suggested that New Zealand

women are disadvantaged in that there is an unequal share of responsibility for the care of dependants; there are patterns of behaviour that are clearly harmful to women; there is a lack of participation by women in public education, private decision-making and resource allocation.

In 1990, a report titled Academic Women and the University, (D. Standring, editor) discussed the position of academic women in New Zealand universities as individual institutions realign themselves to social and equity expectations. It states that the majority of academic women believe that greater representation will not come in the foreseeable future, without support or proactive measure. Through the recommendations of the Status of Academic Women's Committee, a programme is being considered to encourage women to pursue post-graduate study, with the benefits of providing more highly qualified women in the workforce and developing a strong base for future academic careers.

The Wilson Report (1986) - a general survey to compile a general profile of academic women in New Zealand - showed that further progress was needed at Massey University on investigating or monitoring issues identified as necessary for the improvement of the position of academic women. This statement has significance for female extramural students who have the gaining of a higher degree as a motive for their study.

Extramural Study as a Second Chance at Learning ?

Often FEES begin study as they see it as their second chance at learning after earlier dropping out, and even failure at secondary school. Dweck (1986) states that there is a sizeable proportion of high achievers with maladaptive motivation patterns which are common in adolescence. Research has yet to show that these tendencies are discarded later in life. Farmer and Vispoel, (1990), in their study of attributions of female and male adolescents for real-life failure experiences, found that school failures were much more frequently recalled by both sexes than any other type of failure. Results showed little evidence that females' responses were any more indicative of "learned helplessness" than were male's responses. According to Farmer and Vispoel, the implication that prior findings showing that females are more likely to display attribution patterns characteristic of"learned helplessness", may have resulted from a failure to account for the source, domain and importance of the failure events. The present study was preceded by a pilot study of twelve women - four of whom reported that although they had been competent at school, they had lost the motivation to study to their potential. Now that they were more mature they felt that they could apply themselves to gain a better education.

"I was always good at primary school but at high school there were others much brighter than me. I couldn't keep up with the maths and science so I mucked around."

(Sally, 49)

"I lost my self-esteem when I was in our commercial cleaning business. Then my daughter started university and she encouraged me to start. I am proud of my academic success."

(Elizabeth, 47)

"I failed School C. so I thought I was dumb. I am plodding away quite well with my courses. I'm interested in them and that makes a difference."

(Wendy, 55)

"I have always liked reading but I've never been good at writing. My first essay terrified me. But I got a good mark so I've kept on with study."

(Dorothy, 35)

Lyon and Turnbull (1982) comment that women enter the job market with fewer formal qualifications than men, hindering promotion opportunities later. They state that women re-enter education later in life with the same social handicaps with which they enter, or fail to

enter, the promotion race. The years spent at home, or in casual part-time or low-grade work may create a lack of confidence in the ability to handle high-level work, authority and the theoretical discourse that accompanies promotion, especially in the professions. Lyon and Turnbull state that anxiety over one's ability is as much an obstacle to advancement as lack of experience or credentials. Extramural study has a particular significance for the debate on gender and education. Lovell (1980), states that for women who have never had a realistic chance in the first instance, educational opportunities taken up in later life do not offer a second chance but a first chance.

Motivation and the Return To Study

For what reasons do adult women return to study? Most adult participation theory assumes that adult education is a voluntary activity in which learners engage in order to meet needs and goals. Critical to this idea is the concept of motivation, implicitly defined as the basic reasons that lead adult learners to participate. Houle's seminal work (1961) suggested that participants could be divided into three factors - the goal-oriented, the activity-oriented, and the learning-oriented. Further work by Boshier (1971), Morstain and Smart (1974), Boshier and Collins (1985) and Clayton and Smith (1987), used quantitative survey methods. These works attempted to discover the relationship between motivational orientations and various demographic variables.

Clayton and Smith (1987) in their motivational study of re-entry women, found eight motive factors - self-improvement, self-actualisation, vocational, role, family, social, humanitarian and knowledge. Results questioned the stereotype of "empty-nest" older women returning to study primarily for reasons of self-fulfilment. In a study on motivational profiles of adult basic education students, Beder and Valentine (1990), identified ten dimensions : self-improvement, family responsibilities, diversion, literacy development, community involvement, job advancement, launching, economic need, educational advancement, and urging of others. They reported that motivation is multidimensional and stated that their findings provide a relatively parsimonious framework for understanding motivations for participation without subscribing to the assumptions underpinning simple correlational analyses or simple linear models.

Spanard (1990) proposes a descriptive model illustrating the path of adult problem-solving and thinking that leads to re-entry, retention, and eventual completion of a college degree. Each stage of the model represents a unique decision point at which action may or may not be taken to achieve the goal of finishing a degree. Spanard noted that there are three separate actions that subsequently arise in order for an adult to enter college and complete a degree. First the adult will develop a new, or acknowledge an existing desire to return, thus formulating the intent to return to study. This intent may be motivated by internal or

external factors, or a combination of both. Secondly, the adult will determine whether the intent to resume study is strong enough to justify the displacement of time in use for other activities. Spanard comments that if the adult perceives that the benefits of returning to study are greater than the costs incurred in time and money by returning, then the rational adult will take the action of re-entering and again become a student. The third action that must occur for the degree completion is the perseverance to stay with the programme until the degree is earned.

According to Tremaine and Owen (1984), who reported on females who study extramurally, the basis for a woman's motivation may change during the period of study. They observed that work-related papers may be studied before a branching out into general areas of interest, or the move may be from non-specific to one which has vocational relevance. This confirms Reehling's (1980) study which discussed females continuing with study once it was begun, and the change in motivations over time. It was found that those who continued their educational pursuits had a high internal motivation for self-improvement and intellectual stimulation. The females' reasons to continue their educational pursuits differed markedly from their reasons stated in the same study six years before. Self-improvement and employment were almost equally ranked as major reasons for returning in the first study. In the follow-up study the main reasons were intellectual stimulation and the satisfaction of obtaining a degree.

Motivations to a Return to Study and Differing Academic Subjects

Kaplan (1981) studied the motives for female medical students returning to study, finding that the majority enrolled for intellectual motivations, with the reason "now was the time" rating very highly. Intellectual stimulation, developing competency, to feel an achievement and to start or change careers were the greatest motivating factors. Few women wished to make medicine their career for reasons of status or money. Kaplan found that interesting differences occurred in the motivations of medical women students and those women enrolled in law and business. The latter were significantly less motivated than medical women for intellectual reasons and were more interested in the status of the field or the anticipation of a high-paying job.

In a study of adult women returning to college, Der-Karabetian and Best (1984) found that over-all, the women were motivated highly by cognitive interest, moderately by what was termed "social welfare", escape/stimulation and professional advancement and low by social relations. This led Der-Karabetian and Best to comment that adult women in college have realistic expectations from their education. They found that those females in Liberal Arts enrolled not because of expectations in professional advancement, but more for cognitive interest and inherent enjoyment. On the other hand, professional advancement was more of a strong motivator for those women enrolled in Health and Administrative Services, and cognitive interest less. This

was also established in Wolfgang and Dowling's (1981) study comparing academic programmes and adults return to study. They also noted that Education students scored significantly higher on "social welfare" motives than did Administrative Science and general areas of study. Der-Karabetian and Best concluded that women in Education tended to place cognitive interest highly, suggesting self-directedness and a strong internal drive for learning.

Sex Differences and Motives for a Return to Study

In a 1976 study on the goals and motives of returning learners, Ladan and Crooks found that whereas the mature returning female stressed a need for self-fulfilment or identity, the prime motive for continuing education listed by mature males was job advancement and financial goals. It was found that affiliative needs were considered by the mature returning female, in which the attitudes of the immediate family were very important in the decision to study. In comparison, the mature males were less influenced, with the hypothesis that male identity is largely achieved through a career rather than affiliative roles. Ladan and Crooks noted that the mature student's motives and goals are consistent with stereotypes, in which continuing education is viewed by mature males as a means of achieving self-actualisation through vocational success, whereas mature females seek actualisation through developing a self-identity.

Galliano and Gildea (1982), in a study involving motivations of the returning student and practical, personal and academic problems, indicated that returning women experience increased problems in the areas of accomplishing household chores and adequate child-care, while at the same time they reported improvement in emotional well-being, self-confidence, and making new friends. Women also reported a higher incidence of test-taking anxiety and finding time to study. Men, on the other hand reported less academically related problems, but increased financial problems. Most interpersonal relationships were reported as unchanged by the majority of the males.

In a report on the study motivation of long distance students returning to study, von Prümmer (1988), noted some significant divergences in the questionnaire answers of male and female students. For women, the most relevant factor in their decision to return to study was the enjoyment of opening up new areas of knowledge, which was much less important for men. The males showed a decided preference for the study goal of a higher professional qualification whereas although it rated highly, it was placed second in importance. Compared to males, the females more often wanted to prove themselves and increase their self-esteem. They were more interested than males in intellectual stimulation and had more need to make up for a lack of previous opportunities. Another difference in the report between returning male and female students was that most females first enrolled in order to test whether they were capable of academic study. The males placed more

emphasis on career-related aspects of their studies, such as achieving a higher income through higher qualification or attaining job security. This corresponds with Cartwright's findings (1970), comparing male and female medical students returning to study. Females wished to develop their potential to the fullest, while males frequently indicated secondary considerations based on their status and economic rewards of medicine.

Young (1980), in a study involving motivational factors and adult learners, stated that the predominating purpose for adults participating in learning activities was to complete the programme that was started. Young found much variance between the ages. Males aged 18-20 were interested in learning something different from what they were currently doing, while females were interested in how to better handle the problems of everyday living. Males aged 21-25 were motivated by the same reasons as the males in the previous age group, while females aged 21-30 were motivated in learning something of general interest in order to be better informed. Males aged 31-40 were motivated by job upgrading and preparation for a different job, as were females in the same age group. Males aged 41-50 were motivated by job upgrading as well as learning something useful for spare time, while females aged 41-50 were motivated by the idea of meeting new and interesting people. Males over 50 were motivated by learning that would help them with their job and to be better informed, while females' motivations over 50 remained the same as in the previous age group.

Demographic and Developmental Profiles of Returning Women Students

Previous studies have showed varying profiles of the returning female student. Tittle and Denker (1980), in their study of graduate students who had previously gained an undergraduate degree, have described her as typically 37 years old, married, with two children. McClosky (1976) reported on a study which described the majority of women returning to study (both graduate and under-graduate), as primarily under 30 or over 50, divorced or unmarried, and financing their own education. These women sought degrees which would help secure a career. Warley (1979), identified returning women in a study of a commuter college, as dividing into two groups; those who had interrupted their education to marry and raise children, and those who left school in order to take jobs. As the children had begun school or as the women had advanced as far as possible in their careers, the decision to return to study was made. Galliano and Gildea (1982), in their study of demographic characteristics and underlying motives of returning students, described the typical female returning student as aged about 35 or more, married with two children, working at least part-time or currently a home-maker. Blaukopf (1981) in a study of the impact of life-events and the decision to return to study, described returning women as typically aged 38.6 years, married, in a first marriage, who had completed high school, had several children, were previously employed full-time for 4-6 years in a secretarial/clerical position with family household income reported in the range of $25 000 to $30 000.

Some researchers agree that the use of demographic indicators has failed to provide a solid knowledge base on which to understand those who return to study (Brookfield 1986, Darkenwald and Merriam 1982, Rubenson 1988). Cervero and Kirkpatrick (1990) state that the reason for this failure may be found in the lack of research that centres on the premise that processes throughout individual's lives, including the pre-adult years, affect participation in education across the life-span. Mohney and Anderson, (1988), emphasise the great importance that life-events play in the interaction with personal motivations and goals, stating that particular women may score highly on a measure of motivation to achieve, but their behaviour relative to educational achievement may be considerably different because of the influence of external and perhaps conflicting demands and responsibilities. Read, Elliot, Escobar and Slaney, (1988) reporting on the effects of marital status and motherhood on the career concerns of re-entry women, comment that although some women may choose the role of "Superwoman", some may have it thrust upon them. They report that the marital status of females who return to study, and whether or not they have children, may be important influences on the circumstances associated with that return. One finding was that separated and divorced women considered financial need as a more salient reason for seeking their career goals than did married women. Kahnweiler and Johnson (1980), report that important influences or developmental concerns do occur in the lives of women before and after a return to study at mid-

life. Concerns that occur to a significant degree are introspective concerns, concerns that centre around changes in the role of wife or breadwinner, and concerns about physical development and appearance.

Adult Learning and Motivation

Why should educational researchers concern themselves with adult learners? Bown (1989) comments that the education of adults is essential for the health of all societies in this time of immense and potentially overwhelming change. He states that population shifts should encourage researchers to take an interest learners and that social and technological developments should force researchers to consider new types of learning programmes. He states that in order for adult learning programmes to consort with, harness and reinforce students' motivation, then they have to be interesting, enjoyable, relevant, have an agreed direction, sustain and strengthen learners' self-esteem and allow learners to act on what they have learned.

Young (1980) states the importance educators need to place on discovering clues for the facilitation of relevant adult learning. The respondents in the study preferred educational television, cable television, and supervised independent study for learning programmes. Billington (1990) describes how pacing (which can be described as an individual's exposure to a level of cognitive or moral complexity which is

just beyond the current developmental level) can stimulate development. She states that this is an important consideration for the educators of adult learners. Neuwinger (1988) states that a women's perspective of adult education can not be ignored in adult education and that educators need to be aware of the social context where social structures influence and condition people. She also notes that educators need a better understanding of women's development and learning, and that they need to be able to facilitate and be aware of women's learning and be critical of society. She recommends that educators of adults need to reflect on learning theories, making the comment that most books on adult learning reflect the reality of a male oriented society and adult education where women have access and participate in great numbers but do not proceed to influential positions. Sperling (1991) follows this further in a study on mature women's access to higher education, stating that the chance that women deserve to accomplish ambitions is often dashed at an early age by an educational and political system that still manoeuvres them into traditional, narrow modes of occupation. Sperling recommends that changes are needed that will involve fundamental reorganisation of course structures, curriculum content and assessment together with the provision of physical and psychological support services that will enable women to continue study whatever their domestic and family circumstances throughout the period of study.

Chapter Four:

METHODOLOGY

Research Questions

Answers to the following questions were sought.

1. What general motives underlay FEES' decisions to study education extramurally?
2. In what ways do FEES' motives differ from MEES' motives? (male extramural education students)
3. What frustrations and benefits of study are involved for FEES, and do they differ from MEES' frustrations and benefits?
4. Do motives of FEES relate to personality types?
5. Have FEES' motivations to study changed since first deciding to study and do the motivations differ over the age groups?
6. Did the decision to study extramurally coincide with a life event/transition/crisis and maybe cause the formation of new values?

Pilot Questionnaire

Once the initial research question was formulated, a Pilot Study Interview Questionnaire was devised (see Appendix I). This was designed to be as open ended as possible, with lead questions acting as prompts if the discussions tended to wander off task and also to help keep consistency in the quality and content of the interview.

Twelve female participants were selected by word of mouth and from contacts offered by the Massey University Extramural Local Area Communicator. They were firstly approached by telephone and if willing, a time was set up to meet.

The twelve interviews in which the participants filled in the pilot questionnaire were also tape-recorded with the permission of the participants. The interviews lasted approximately half an hour. From these and the pilot questionnaire, a final questionnaire was devised based on the participants' responses and from reading of the literature. (see Appendix II)

Bibliographic Database Searches

These were made using the on-line facilities of the Auckland Public Library. A search was made of the ERIC and DIALOG databases for information pertaining to the motivations of the returning female student.

Myers-Briggs Type Indicator

In order to provide data on personality types the well-known and well-researched Myers-Briggs Type Indicator (MBTI) was administered. The questions in the MBTI indicate basic preferences and are concerned with the differences in people that result in the way they take in information, where they like to focus their attention, the way they like to decide, and the kind of life-style they adopt. The MBTI, which is based on Jung's theory of psychological types, reports preferences on four scales. Each preference represents two opposite preferences. For each of the four scales, people use both preferences at different times, but not both at once, and usually not with equal confidence. The Indicator is a self-administering questionnaire in forced-choice format. Form G with 126 questions was used in the present study.

The MBTI items, which are concerned with four bi-polar preferences as mentioned, force choices between two equally valuable poles of each preference to determine the relative preference of one over the other. The four preferences are as follows:

1. Extraversion Attitude (E) or Introversion Attitude (I)

    In the extroverted attitude (E), persons seek engagement with the environment and give weight to events in the world around them. In the introverted attitude (I), persons seek engagement with their inner world and give weight to concepts and ideas to understand events.

2. Sensing Perception (S) or Intuitive Perception (N)

(S) persons, when using perception, are interested in what is real, immediate, practical, and observable by the senses. When using intuitive perception, (N) persons are interested in future possibilities, implicit meanings, and symbolic or theoretical patterns suggested by insight.

3. Thinking Judgement (T) or Feeling Judgement (F)

When using thinking judgement (T) persons rationally decide through a process of logical analysis of causes and effects. When using feeling judgements (F) persons rationally decide by weighing the relative importance or value of competing alternatives.

4. Judgement (J) or Perception (P)

When the orientation toward the world uses judgement, (J) persons enjoy moving quickly towards decisions and favour organising, planning and structuring. When the orientation to the world uses perception, (P) persons enjoy being curious and open to changes, preferring to keep options open in case something better turns up.

McCaulley (1990) states that the MBTI provides the material and research data for applying the theory of psychological types, thereby further providing a framework for predicting and interpreting data on motivation, aptitude, achievement, communication styles and career

patterns. It can be used in two ways: to help understand the life-long developmental pathway of each individual and to help understand relationships among people in groups.

Myers-Briggs and Type

Myers-Briggs (1985) explains that a person's type is the combination and interaction of the four preferences shown by the MBTI. Each preference is represented by its letter, with the result being a four-letter code. These "codes" make up sixteen types: ESTJ, ENTJ, ISTP, INTP, ESFJ, ENFJ, ISFP, INFP, ESTP, ESFP, ISTJ, ISFJ, ENTP, ENFP, INTJ, and INFJ. A brief description of the sixteen types follows, with examples of the sorts of motives which would probably relate to each if personality traits were the sole or main influence on the choice.

ESTJ: (Extroverted Thinking with Sensing)

ESTJ people rely on thinking, which makes them logical and analytical. An ESTJ will live by a definite set of rules in which conduct is ruled by logic. Motives for enrolling might be setting an example for their children, or wanting to understand how people learn.

ENTJ: (Extroverted Thinking with Intuition)

ENTJ people use their thinking to run as much of the world as may be theirs to run. They are interested in seeing the possibilities beyond what is present, their intuition heightening their intellectual interest and curiosity for new ideas. Motives for enrolling might be to show independence or for the intellectual stimulation.

ISTP: (Introverted Thinking with Sensing)

ISTP people use their thinking to look for the principles underlying the sensory information that comes into their awareness. They can be shy and reserved, interested in how and why things work. A motive for enrolling might be in order to prove that they can achieve a degree.

INTP: (Introverted Thinking with Intuition)

INTP people rely on their thinking to develop the principles underlying whatever ideas come into their awareness. Their main interest lies in seeing possibilities beyond what is known, being likely to concentrate on the challenge of reaching solutions to problems. A motive for enrolling might be the satisfaction of achieving something.

ESFJ: (Extroverted Feeling with Sensing)

ESFJ people are concerned with the people around them, gaining pleasure and satisfaction from other people. They are interested in achieving harmony and in the unique differences in each experience they encounter. A motive for enrolling might be in order to prove to themselves and to others that they can achieve.

ENFJ: (Extroverted Feeling with Intuition)

ENFJ people radiate sympathy and fellowship, being interested in seeing beyond the possibilities of what is present. Intuition heightens their vision. A motive for enrolling might be in order to understand how people learn.

ISFP: (Introverted Feeling with Sensing)

ISFP people are more likely to show their feelings by deeds rather than words, seldom expressing their deepest feelings. They are interested in the realities brought to them by their senses. A motive for enrolling might be to prove to themselves that they can achieve.

INFP: (Introverted Feeling with Intuition)

INFP people take a personal approach to life, judging everything by their inner ideals, but seldom expressing their inner feelings. They want their work to contribute to something that matters to them, and tend to have insight and long-range vision. Motives for enrolling might be in order to obtain more knowledge, or to have the satisfaction of achieving something.

ESTP: (Extroverted Sensing with Thinking)

ESTP people rely on what they see, hear, and know first-hand, solving problems by being adaptable. They are often able to see ways of achieving a goal by "using" the existing rules. Motives to enrol might be in order to help their children with their education, or a challenge to get a degree by a certain age.

ESFP: (Extroverted Sensing with Feeling)

ESFP people look for satisfying solutions instead of trying to impose their own, with a focus on the current situation and a realistic acceptance of what exists. They make decisions by using the personal values of feeling rather than the logical analysis of thinking. Motives for enrolling might be to set an example for their children, or to prove to themselves that they can achieve.

ISTJ: (Introverted Sensing with Thinking)

ISTJ people have a complete, realistic and practical respect for the facts, liking everything to be clearly stated. They do not enter into things impulsively, and are hard-working and systematic. Motives for enrolling might be in order to prove they can gain a degree or in order to obtain more knowledge.

ISFJ: (Introverted Sensing with Feeling)

ISFJ people can remember and use any number of facts that are clearly stated and accurate. Their perseverance tends to stabilise everything with which they are connected and they tend to be kind, sympathetic and supportive. A motive for enrolling might be to show that they can be independent.

ENTP: (Extroverted Intuition with Thinking)

ENTP people are ingenious innovators who always see new possibilities. Their energy comes from a succession of new interests and their world is full of possible projects. A motive for enrolling might be for the fun and enjoyment of study.

ENFP: (Extroverted Intuition with Feeling)

ENFP people are stimulated by difficulties and are most ingenious in solving them. They see many possible projects and use their feelings to select and weigh the values of each. They are very perceptive about the attitudes of others. A possible motive for enrolling might be in order to understand how people learn.

INTJ: (Introverted Intuition with Thinking)

INTJ people are the most independent of all types, placing a high value on competence. They are willing to spend time and effort to see their inspirations worked out in practice. Motives to enrol might be because of a need for intellectual stimulation or to prove to themselves that they can achieve.

INFJ: (Introverted Intuition with Feeling)

INFJ people are great innovators in the world of ideas, being governed by inspirations that come through intuition. They work to persuade others to approve of and cooperate with their purposes. Motives for enrolling might include setting an example for their children or for the satisfaction of achieving.

Myers-Briggs and Temperament

Myers-Briggs (1985) explains temperament in that the two middle letters of a person's type indicate dominant and auxillary functions which balance and complement each other. Dominant and auxillary functions are used differently by introverts and extraverts. The dominant process for extraverts is used in the outer world, while the auxillary function is used in their inner world. The opposite is true for introverts.

There are four temperament types identified by Myers-Briggs. A person with an NF temperament (Intuitive/Feeling) makes decisions with personal warmth, but as they prefer intuition, their interest is not in

facts but in possibilities. They are attracted by new possibilities. A person with an NT temperament is also interested in possibilities, but as they prefer thinking, they apply objective and logical criteria to the possibilities. An SP person is mainly interested in the realities of a given situation - that which can be observed, collected and verified by the senses. They make decisions by a step-by-step process of reasoning from cause to effect. A person with an SJ temperament is interested in observable reality, making their decisions with personal warmth. They are particularly sensitive to others' reactions and feelings.

The many factors identified by the researchers cited above and theorised in Bronfenbrenner's ecological model, make it unlikely that personality factors taken alone will be found to have a major influence. Not only so, but the choice of education as a field of study may itself narrow the range of types in the study. Indeed the raw count of respondents according to type will show (see Tables 19 & 20) that only a few types account for a majority in the sample. Nevertheless the impact of certain environmental factors and the degree of certain motives may well be affected by psychological type.

Recent research has shown that the dimensions exhibited by the MBTI are similar to those of major recent personality research (McCrae and Costa, 1989). It would further be expected that there would be correlations between certain types of students.

Description of the Questionnaire

The aim of the present study was to discover as much as possible about FEES motivations to return to study. In order to give more definition to the present study which is about FEES, males (MEES) were used as a comparison group. Twenty-one demographic questions were devised to discover as much material as practicable on the backgrounds of the participants. These were needed to give depth to the analysis of the 125 questions in the questionnaire, which was designed to extract the enrolled students' motivations. (Appendix II)

The motivational questions in the questionnaire were divided into three main parts. Part One was made up of predisposing factors for motivation to enrol, Part Two covered barriers to prior enrolment and Part Three was made up of enabling factors for the ability to enrol extramurally at Massey University. The remainder of the questionnaire was divided into a further three sections, the final two of which were open-ended. Part Four covered the frustrations and Part Five dealt with the positive effects of studying extramurally. The final section (Part Six) dealt with any changes that might have occurred in motivation, and whether the decision to study coincided with a life-event or transitions which may have led to the formation of new values.

Parts One, Two and Three of the questionnaire consisted of 74 questions which were then sub-divided as follows:

Predisposing Factors:

Competence based motives, Security / need to be independent, Family of origin/influence, Sense of "time is now" / diversion, Intrinsic reward to education, Career / Job development.

Barriers to Prior Enrolment:

Role demands, Child related variables, Self Image, Family of circumstances, Lack of finances/youth, Unavailability of classes.

Enabling factors:

Role demands lessened, Support from others, Financial ability, Available classes, Compensation needs.

For the purposes of the present study, predisposing factors were defined as those events or dispositional states that helped create or maintain FEES and MEES to enrol. Barriers to enrol were defined as those past events that were believed to have prevented FEES and MEES from enrolling at the traditional age. This would have resulted in them leaving university before the completion of a degree, or kept them from enrolling at a prior time in adult life. Enabling factors were defined as events happening within recent years that interacted with FEES and

MEES motivations to enable them to return to study so that they enrolled in a paper.

Further depth to the study was also added from ten in-depth interviews which were conducted at Massey University on-campus courses. The participants who were attending various education courses, volunteered for the interviews which lasted approximately half an hour. Discussion centred around Part 6 of the questionnaire, in which interviewees were encouraged to examine the reasons why they began study, whether the motivations had remained the same, whether the decision to study coincided with a life-transition, and whether the decision was instrumental in the formation of new values.

Selection of the Sample

The population for responding to the questionnaires was randomly selected by the Massey University Statistics Section from the extramural students enrolled in Education in 1991. If the 1991 enrolments were insufficient, the population was taken from 1990 and 1989 to complete the number.

For undergraduates, the sampling frame called for 35 subjects from each of the following age bands specified in Table 1.

Table 1 - Sampling Framework of FEES and MEES

Gender	Age	Qualification	1st Draw	2nd Draw
Female/Male	≤ 25	Undergraduate	25	10
Female/Male	26-35	Undergraduate	25	10
Female/Male	36-45	Undergraduate	25	10
Female/Male	≥46	Undergraduate	25	10
Female/Male	All	Post-graduate	20	10
		Total	240	100

For Post-Graduates, the sampling framework included any enrolment that met the selection criteria for females and males over two draws. The first draw totalled 20 subjects and the second 10.

However, it was not possible to draw samples according to the sampling framework for male undergraduates for the various age bands as the total number of enrolments in this group was 147. Therefore, the entire population of undergraduate male extramural education students became the sample.

The questionnaires were then sent to 250 extramural students from the 370 addresses supplied. The participants were selected by following a table of random numbers and by applying it to the lists supplied from the Massey University Statistics Office.

Analysis of Data

170 replies were received (Table 2) which were entered into a spreadsheet and analysed for demographic data.

Table 2 - Breakdown of Questionnaire respondents by age and gender

Age Group	Gender	n	Gender %	Total %
19 - 24	Female	10	11	11.1
	Male	9	12	
25 - 29	Female	8	9	8.08
	Male	5	7	
30 - 34	Female	12	13	14.1
	Male	12	16	
35 - 39	Female	16	17	17.9
	Male	12	16	
40 - 44	Female	14	15	19.2
	Male	19	25	
45 - 49	Female	20	21	18.2
	Male	11	14	
50 - 54	Female	11	12	8.08
	Male	3	4	
55 +	Female	3	3	4.00
	Male	4	5	
Totals	Female	94.00	101.00	100.66
	Male	75.00	99.00	

The data was then given a numerical value representing each of the categories in each question. In most instances this was a straight forward procedure. In the case of details concerned with the occupations, vocational training, parents employment when as a child and in the present day the diversity of activities was too large. A modified Elley and Irving (1977) Index was used to overcome this. The index was modified by adding three further categories to the six they defined (i.e. 1 Higher professional and Administrative work, 2 Lower professional

Technical and Executive work, 3 Clerical and Highly skilled, 4 Skilled work, 5 Semi-skilled Repetitive work, 6 Unskilled Repetitive work) being 7 Retired, 8 Dead and 9 Home maker. All other text answers where converted to a numerical value. These related to the values, life transitions and reasons for studying were analysed and given numerical values (see Appendix IV, V and VI).

The completed data was then converted to ASCII format. This was then put through a statistical program SPSSx on the Massey University mainframe computer, utilising the following statistical procedures.

Pearson Correlation Coefficients were computed for the total sample in order to express the degree and the direction of relationship between two variables. The correlation coefficients are used to help quantify the strength of the associations and summarize the strength of linear association. Table 21 shows the results of these procedures for Myers-Briggs and Motivation Scales.

Cross Tabulations were taken for each of the demographic factors against each of the motivational questions. The general guideline used in reading the cross tabulations was that suggested by Norusis (1983). If the independent variable is the row variable the row percentages were selected. If the independent variable is the column variable, column variables were selected.

The cross tabulations were then tested for independence by the use of the Chi-Square test. This test decides on the basis of a probability table whether the items being calculated are entities in their own right or if they are dependent on each other. If the *observed significance level* is **small** enough (i.e. below 0.05 or 0.01) the hypothesis that the two variables are independent is rejected. Conversely, if the *observed significance level* is **larger** than the levels above then the variables can be assumed to have no dependence.

"Certain conditions must be met for the chi-square distribution to be a good approximation. The data must be random samples from multi-nomial distributions and the expected values must not be too small. (at least 5)" Norusis, (1983). Both of these conditions are met in this study.

The next procedure concerned the empirical structure of the items of the motivation questionnaire. The factor analysis over the 125 motivational questions showed that there were 31 distinct groupings of the questions compared with the original 19 groupings. (Appendix III)

These factor groupings then had means taken for each group, for both female and male populations. These means were then used in a ONEWAY analysis procedure as dependent variables to test the effects of the independent variables upon motivation. "This procedure produces a one-way analysis of variance. Output includes sums of squares, degrees

of freedom, mean squares, and the F ratio and its significance." (Norusis, 1983).

"A significant F statistic indicates only that the population means are probably unequal. It does not pinpoint where the differences are. A variety of special techniques, termed multiple comparison procedures, are available for determining which population means are different from each other." (Norusis, 1983)

The Scheffe Test was used to obtain a conservative comparison of means as it only shows significant differences at the 0.05 level. The Scheffe Test also indicated whether groups within each analysis of variance were significantly different. Tables 4 to 19 show the results of these procedures as footnotes to the tables in association with the ONEWAY procedure.

Chapter five

RESULTS

Validity

Through the use of the pilot questionnaire, criterion validity was obtained by the responses of current female educational groups. From the related literature, conceptual validity was obtained and the concurrent validity has been obtained in terms of the relationships observed in the research project itself.

The internal consistency in the present study was checked out by the correlation between four of the original five groups. As the sixth part was open-ended, this was not put through any statistical tests. Instead a frequency count was done, with a percentage calculated on each of the identified independent variables.

Factor Analysis

The matrix giving the factor loadings that emerged from factor analysis is to be found in Appendix 4. Percentage of variance and H square are also given with the latter referring to the communality estimate which is the proportion of variance in the variable that has been exhausted by the factor solution.

The factor analysis retained the same first three main categories of the questionnaire (predisposing factors, barriers to prior enrolment and

enabling factors), rearranging the original nineteen sub-groups into 31 distinct groups as shown in Table 3. (Categorisation Groups by Factor Analysis) When the factor analysis was examined, it was apparent that Group 30 (culture insensitivity) and Group 31 (form-filling) were not useful because of an almost complete lack of variation in responses. There was a very high percentage of "not true" responses.

(Facing page 60)
Table 3 Categorisation Groups by Factor Analysis

Group 1 need more status	Group 17 new life-role
Group 2 help my children	Group 18 use time
Group 3 need for achievement	Group 19 follow others
Group 4 need for money	Group 20 convenience
Group 5 influences of others	Group 21 specific course
Group 6 understand people	Group 22 home demands
Group 7 need degree	Group 23 study skill
Group 8 personal challenge	Group 24 academic communication
Group 9 self-improvement	Group 25 isolation
Group 10 same job needs	Group 26 time/money
Group 11 new job needs	Group 27 others' attitudes
Group 12 no resources	Group 28 child-care
Group 13 self-image needs	Group 29 timing
Group 14 over-loaded	Group 30 culture insensitivity
Group 15 support	Group 31 form filling
Group 16 other roles	

This was maybe due to the fact that the parameters of the three-point Likert Scale were not sufficient to enable respondents to indicate an explanation of "not true". For example: 4.10 "I have experienced/ noticed racial discrimination" (over 90% indicated not true) was grouped with 4.17 "Enrolment forms have caused difficulty" (80% indicated not true). Consequently, Groups 30 and 31 were dropped.

Analysis of Variance (ONEWAY) and Scheffe Test

From this statistical method for making simultaneous comparisons between two or more means, the present study compared each dependent variable (the 29 groups) against the independent demographic variables of gender, age, ethnicity, salary, occupation of respondent, education of mother/father, occupation of mother/father at the present time and when the respondent was a child, satisfaction with education as a subject, satisfaction with life, vocational training, Myers-Briggs temperament and Myers-Briggs psychological type.

The Scheffe test was run after the above test in order to determine which specific comparisons in a multi-factor range were significant. These comparisons were used because the analysis of variance showed an overall significance. The procedure helps protect against calling too many differences significant and setting up a more stringent criteria for declaring difference significant. That is the differences must be larger to be identified as a true difference.

Gender

An important part of this thesis is the comparing of FEES' motivations with MEES' motivations. Table 4 (Analysis of Variance by Gender) indicates a gender difference in Group 2 (help my children) at the .05 level of significance. Another significant difference at the same level occurs between gender and Group 28 (child-care). At the .01 level of

significance, a difference between gender occurs between Group 8 (personal challenge). At the .001 level of significance, differences between gender are seen in Groups 14 (over-loaded), 15 (support), 16 (other roles), 17 (new life-role), 18 (use time), and 20 (convenience). The Scheffe test was not run across these variables.

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Table 4 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Gender : Females, Males

Independent variable	Scale Number	Female *n* = 92 Male *n* = 76			
		Female Mean	Male Mean	f Ratio	f Prob.
Gender	Group 1	1.83	1.89	.67	.41
Gender	Group 2	1.84	2.11	4.82	.02*
Gender	Group 3	2.59	2.47	1.52	.22
Gender	Group 4	1.91	1.82	.68	.41
Gender	Group 5	1.26	1.32	.71	.40
Gender	Group 6	1.76	1.70	.59	.44
Gender	Group 7	1.90	1.92	.05	.83
Gender	Group 8	2.36	2.18	6.54	.01**
Gender	Group 9	1.96	1.93	.11	.74
Gender	Group 10	1.68	1.83	2.59	.11
Gender	Group 11	1.35	1.42	1.27	.26
Gender	Group 12	1.33	1.23	1.84	.18
Gender	Group 13	1.20	1.15	.65	.42
Gender	Group 14	1.52	1.30	9.93	.001***
Gender	Group 15	1.23	1.04	16.63	.000***
Gender	Group 16	1.60	1.35	14.46	.000***
Gender	Group 17	1.77	1.49	11.59	.001***
Gender	Group 18	1.79	1.47	24.39	.000***
Gender	Group 19	1.23	1.84	.85	.36
Gender	Group 20	1.78	1.55	9.33	.000***
Gender	Group 21	1.26	1.26	.00	.99
Gender	Group 22	2.00	1.90	1.50	.22
Gender	Group 23	1.59	1.70	2.07	.15
Gender	Group 24	1.46	1.45	.01	.93
Gender	Group 25	1.88	1.90	.07	.79
Gender	Group 26	1.45	1.49	.19	.67
Gender	Group 27	1.19	1.20	.04	.83
Gender	Group 28	1.39	1.25	5.22	.02*
Gender	Group 29	1.69	1.66	.18	.67

* = p <.05
** = p <.01
*** = p <.001

Age

There are good reasons to believe that age difference will affect and change the motivational responses. Nine categories were in the questionnaire. (Appendix 7) In reporting these the ages have been compressed into three categories 19-29 years, 30-49 years and 50+ years. The Scheffe Test range is over the nine categories, 19-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-60 and 60+ years.

Table 5 (Analysis of Variance by Age) indicates that females show significant differences at the .05 level of significance for age and Group 14 (over-loaded), Group 16 (other roles), Group 18 (use time), and Group 26 (time/money). At the .01 level of significance, Group 8 (personal challenge), and age show a significant difference and at the .02 level of significance, Group 17 (new life-role) shows a significant difference with age. The Scheffe test indicates that for Group 8 (personal challenge), there is a significant difference at the .05 level between the 19-24 year-old Group and the 50-54 year-old group. For Group 17 (new life-role), the Scheffe test shows a significant difference at the .05 level between the 50-54 year-old Group and the 19-24 and 25-29 year-old Groups.

Males show significant differences at the .05 level of significance between age and Group 2 (help my children), Group 8 (personal challenge), Group 10 (same job needs), Group 16 (other roles), Group 17 (new life-role), Group 21 (specific course), Group 26 (time/money),

Group 28 (child-care). The Scheffe test shows no significant differences at the .05 level.

In summary, age had a different pattern of effects for females and males. For females the main barriers to an earlier enrolment were parenting demands and too many other roles. Enabling events in the decision to enrol were the availability of spare time and the possibility of a new life role now that children had grown up. The latter was particularly important for the 50+ age group. Between the age groups, women over 50 showed that the motivation of a personal challenge was much higher than of those in the 19-24 year old group. Whereas for males, the main motivation for 19-29 year olds was the personal challenge; for 30-49 year olds the main motivations were to set an example for their children and for achievement and promotion within a job. A barrier for 30-49 year olds was the demand of too many other roles. An enabling event in the decision to enrol for 19-29 year old males was the availability of a course, while for the 50+ age group the main enabling event was the possibility of a new life role. A major study frustration for the 19-29 year old males was the lack of time and money, and for the 30-49 year olds, child care was their biggest frustration.

Thus motivation is different for females and males at different age levels. On several items, it is worth noting that no gender differences in motivation appeared.

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Table 5 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Age : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total n	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	19-29	*n*	30-49	*n*	50+				*n*	19-29	*n*	30-49	*n*	50+			
Age	Group 1	17	1.70	61	1.47	14	1.63	91	.95	.47	14	1.10	55	1.88	7	1.60	75	.99	.45
Age	Group 2	16	1.62	61	1.93	14	1.93	90	1.58	.15	14	1.60	55	2.31	7	1.40	75	2.70	.02[1]
Age	Group 3	17	2.54	61	2.58	14	2.62	91	.28	.96	14	2.42	55	2.51	7	2.31	75	.60	.76
Age	Group 4	17	1.84	61	1.97	14	1.76	91	.59	.76	14	1.50	55	1.80	7	1.64	75	.77	.61
Age	Group 5	17	1.31	61	1.27	14	1.24	91	.42	.89	14	1.48	55	1.29	7	1.17	75	.66	.70
Age	Group 6	17	1.64	61	1.73	14	1.88	91	1.45	.20	14	1.86	53	1.67	7	1.41	73	1.38	.23
Age	Group 7	17	2.01	61	1.88	14	1.78	91	.48	.85	14	1.93	53	1.92	7	1.90	73	.24	.97
Age	Group 8	17	2.15	61	2.36	14	2.52	91	2.68	.01[2]	14	2.38	53	2.11	7	2.11	73	2.29	.04[1]
Age	Group 9	17	1.82	61	2.10	14	2.03	91	1.62	.14	14	2.12	53	1.88	7	1.99	73	1.45	.20
Age	Group 10	17	1.57	61	1.76	14	1.46	91	.97	.47	14	1.79	53	1.94	7	1.38	73	2.67	.02[1]
Age	Group 11	17	1.21	61	1.44	14	1.28	91	1.99	.07	14	1.48	53	1.44	7	1.21	73	1.20	.31
Age	Group 12	17	1.09	61	1.36	14	1.51	90	1.46	.19	14	1.23	55	1.23	7	1.39	75	1.54	.17
Age	Group 13	17	1.11	61	1.51	14	1.23	90	1.20	.31	14	1.23	55	1.13	7	1.24	75	1.33	.25
Age	Group 14	17	1.14	61	1.59	14	1.78	90	2.62	.02[1]	14	1.09	55	1.36	7	1.39	75	1.75	.11
Age	Group 15	17	1.11	61	1.28	13	1.22	90	.90	.51	14	1.08	55	1.03	7	1.07	75	.57	.78

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows 19-24 Group being significantly different from 50-54 Group at the 0.05 level

Table 5 continued on next page

Table 5 - : continuation of Scales by Age : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	19-29	*n*	30-49	*n*	50+				*n*	19-29	*n*	30-49	*n*	50+			
Age	Group 16	17	1.31	61	1.37	13	1.90	90	2.37	.03[1]	14	1.20	55	1.37	7	1.12	75	2.76	.02[1]
Age	Group 17	17	1.26	61	1.79	14	2.23	91	5.10	.001[3]	14	1.30	55	1.52	7	1.78	75	2.18	.05[1]
Age	Group 18	17	1.53	61	1.82	14	1.96	91	2.36	.03[1]	14	1.42	55	1.50	7	1.43	75	1.03	.42
Age	Group 19	17	1.26	61	1.22	14	1.28	91	.49	.84	14	1.30	55	1.16	7	1.15	75	1.72	.12
Age	Group 20	17	1.61	61	1.77	14	2.03	91	1.59	.15	14	1.59	55	1.55	7	1.41	75	1.07	.39
Age	Group 21	17	1.21	61	1.26	14	1.29	91	.64	.72	14	1.49	55	1.22	7	1.08	75	2.21	.04[1]
Age	Group 22	17	1.88	61	2.12	14	1.65	91	1.54	.16	14	1.69	55	1.98	7	1.86	75	1.45	.20
Age	Group 23	17	1.46	61	1.66	14	1.34	91	1.19	.31	14	1.83	55	1.64	7	1.81	75	.65	.72
Age	Group 24	17	1.45	61	1.47	14	1.27	91	.47	.85	14	1.63	55	1.39	7	1.53	75	1.23	.30
Age	Group 25	17	1.85	61	1.95	14	1.54	91	1.68	.13	14	2.12	55	1.85	7	1.90	75	1.98	.07
Age	Group 26	17	1.44	61	1.54	14	1.07	91	2.15	.05[1]	14	1.72	55	1.44	7	1.42	75	2.22	.04[1]
Age	Group 27	17	1.23	61	1.23	14	1.05	91	.66	.71	14	1.11	55	1.22	7	1.34	75	.84	.56
Age	Group 28	17	1.17	61	1.51	14	1.12	91	2.89	.01[1]	14	1.06	55	1.33	7	1.10	75	2.44	.03[1]
Age	Group 29	17	1.46	61	1.73	14	1.74	91	.98	.45	14	1.78	55	1.63	7	1.50	75	.68	.68

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[3] Scheffe Test shows 50-54 Group being significantly different from 19-24 and 25-29 at the 0.05 level

Ethnicity

Differences in ethnicity can be expected to produce different motivational responses. In the questionnaire six options were given - European, Maori, Pacific Island, Indian, Asian and Other. In the analysis these have been compressed into three categories, European, Maori / Pacific Islander and Other.

Table 6 (Analysis of Variance by Ethnicity) shows that among females, significant ethnic differences in motivation appear. Significant differences at the .05 level were found in Group 10 (same job needs) and Group 23 (study skill). The Scheffe test indicates that for Group 10 (same job needs), and Group 23 (study skill), significant differences exist at the .05 level between the Maori/Polynesian group and the European group. At the .001 level of significance, differences exist between Group 5 (influences of others) and Group 19 (follow others). The Scheffe test shows significant differences at the .05 level between the Maori group and the European and Asian groups, for Group 5 (influences of others). For Group 19 (follow others), the Scheffe test shows significant differences at the .05 level between Maoris and Europeans.

Males show significant differences between Group 5 (influences of others) and Group 23 (study skill) at the .05 level of significance. The Scheffe test shows a significant difference between Maoris and Europeans at the .05 level. At the .01 level of significance, a difference

is found between ethnicity and Group 26 (time/money). The Scheffe test shows the Maori group being significantly different from Others at the .05 level.

In summary, Maori/ Polynesian females were more strongly motivated to enrol for achievement and promotion within the job and by the influence of others. European females were less likely than the Maori Group to study because others were studying. On the other hand, Maori/ Polynesian males were more strongly motivated by the influence of others, and more frustrated by difficulties with study skills. The main frustration for males in the Other Group was lack of time and money.

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Table 6 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Ethnicity : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Euro	*n*	Maori/ Poly	*n*	Other				*n*	Euro	*n*	Maori/ Poly	*n*	Other			
Ethnicity	Group 1	85	1.81	6	2.04	1	1.75	91	.63	.54	63	1.90	11	2.37	2	1.63	75	1.85	.13
Ethnicity	Group 2	84	1.80	6	2.33	1	2.00	90	1.25	.29	63	2.08	11	2.68	2	2.25	75	.84	.50
Ethnicity	Group 3	85	2.57	6	2.67	1	3.00	91	.34	.71	63	2.52	11	2.10	2	2.50	75	1.04	.39
Ethnicity	Group 4	85	1.87	6	2.39	1	2.00	91	2.10	.12	63	1.80	11	2.32	2	1.33	75	.93	.45
Ethnicity	Group 5	85	1.19	6	2.28	1	1.00	91	27.67	.00[3]	63	1.27	11	1.36	2	1.16	75	2.95	.03[3]
Ethnicity	Group 6	85	1.73	6	2.06	1	2.67	91	2.92	.06	61	1.70	11	1.53	2	1.67	73	.12	.98
Ethnicity	Group 7	85	1.88	6	2.25	1	1.50	91	1.17	.32	61	1.84	11	2.38	2	2.25	73	1.83	.13
Ethnicity	Group 8	85	2.34	6	2.63	1	2.40	91	1.25	.29	61	2.23	11	1.85	2	2.30	73	1.34	.26
Ethnicity	Group 9	85	1.93	6	2.39	1	2.33	91	1.92	.15	61	1.95	11	2.16	2	1.84	73	.46	.77
Ethnicity	Group 10	85	1.64	6	2.33	1	1.33	91	3.84	.03[3]	61	1.78	11	2.34	2	2.34	73	1.80	.14
Ethnicity	Group 11	85	1.34	6	1.42	1	1.75	91	.64	.53	61	1.43	11	1.32	2	1.13	73	.36	.84
Ethnicity	Group 12	84	1.32	6	1.50	1	1.00	90	.65	.52	61	1.25	11	1.06	2	1.40	75	1.03	.40
Ethnicity	Group 13	84	1.20	6	1.04	1	1.50	90	.84	.43	63	1.18	11	1.13	2	1.00	75	.83	.51
Ethnicity	Group 14	84	1.53	6	1.40	1	1.80	90	.30	.74	63	1.31	11	1.19	2	1.40	75	.51	.73
Ethnicity	Group 15	84	1.24	6	1.08	1	1.00	90	.65	.53	63	1.05	11	1.00	2	1.00	75	.32	.86

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows Maori Group being significantly different from European and Asian Groups at the 0.05 level
[3] Scheffe Test shows Maori Group being significantly different from the European Group at the 0.05 level

Table 5 continued over page

Table 6 - : continuation of Scales by Ethnicity : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Euro	*n*	Maori/ Poly	*n*	Other				*n*	Euro	*n*	Maori/ Poly	*n*	Other			
Ethnicity	Group 16	84	1.60	6	1.42	1	1.20	90	.79	.46	63	1.36	11	1.14	2	1.50	75	.73	.57
Ethnicity	Group 17	85	1.73	6	2.10	1	2.40	91	1.74	.18	63	1.51	11	1.30	2	1.50	75	.55	.70
Ethnicity	Group 18	85	1.79	6	1.67	1	2.75	91	2.66	.08	63	1.49	11	1.29	2	1.63	75	.10	.41
Ethnicity	Group 19	85	1.19	6	1.67	1	1.67	91	7.22	.001[4]	63	1.21	11	1.05	2	1.00	75	.69	.60
Ethnicity	Group 20	85	1.76	6	1.94	1	2.00	91	.50	.61	63	1.56	11	1.57	2	1.50	75	.66	.62
Ethnicity	Group 21	85	1.23	6	1.50	1	2.00	91	2.92	.06	63	1.36	11	1.15	2	1.00	75	.30	.88
Ethnicity	Group 22	85	1.98	6	2.42	1	1.50	91	2.75	.07	63	1.87	11	2.34	2	2.13	75	1.16	.34
Ethnicity	Group 23	85	1.55	6	2.10	1	1.50	91	3.83	.03[4]	63	1.66	11	1.80	2	1.00	75	3.21	.02[1]
Ethnicity	Group 24	85	1.45	6	1.63	1	1.00	91	.89	.41	63	1.47	11	1.93	2	1.63	75	1.56	.20
Ethnicity	Group 25	85	1.86	6	2.20	1	1.25	91	1.56	.22	63	1.85	11	2.50	2	2.38	75	1.73	.15
Ethnicity	Group 26	85	1.44	6	1.75	1	1.00	91	1.26	.29	63	1.48	11	1.65	2	2.50	75	3.45	.01[5]
Ethnicity	Group 27	85	1.19	6	1.25	1	1.00	91	.17	.84	63	1.20	11	1.13	2	1.25	75	.25	.91
Ethnicity	Group 28	85	1.37	6	1.67	1	1.33	91	1.31	.28	63	1.24	11	1.30	2	1.34	75	.54	.71
Ethnicity	Group 29	85	1.67	6	2.05	1	1.00	91	2.29	.11	63	1.66	11	1.65	2	1.67	75	.91	.47

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[4] Scheffe Test shows European Group being significantly different from the Maori at the 0.05 level
[5] Scheffe Test shows Maori Group being significantly different from Other at the 0.05 level

Salary

It was important to get an approximation of the ranges in salary as these are closely linked with the Elley-Irving Socio-economic Scale that was used. The salary ranges which were in the questionnaire have been compressed in Table 7 (Analysis of Variance by Salary) to three categories - $0-20 000, $20 000-40 000 and $40 000 +.(see Appendix 7 for questionnaire categories) The Scheffe test reports on the original five categories of $0-10 000, $10-20 000, $20-30 000, $30-40 000 and $40 000 +.

Table 7 (Analysis of Variance by Salary) shows analysis of variance probabilities between salary and the independent variables. Significant differences are found at the .01 level for females in Group 4 (need for money). At the .001 level, significant difference is found in Group 10 (same job needs) with the Scheffe Test indicating difference at the .05 level between the $0-10 000 group and the $30-40 000 group.

Males show significant difference at the .05 level in Group 10 (same job needs)and Group 26 (time/money). At the .01 level, a significant difference is found in Group 21 (specific course). The Scheffe test for this Group shows significant difference between Groups at the .05 level for the Groups $0-10 000 and the $30-40 000 and $40 000+ Groups.

In summary, females in the $20-40 000 salary bracket were more likely than females in the $0-10 000 salary bracket to be motivated to enrol by the need for money, and for achievement and promotion in a job. Males in the $20-40 000 salary bracket were motivated more than the other Groups by the need for achievement and promotion within a job. A major frustration for the $0-20 000 salary bracket was the lack of time and money. An enabling factor in the decision to enrol for males in the $0-20 000 salary bracket was the availability of a specific course.

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Table 7 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Salary (in thousands of dollars) : Females, Males

Independent variable	Scale Number	Female									Male								
		Means						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	$0-20	*n*	$20-40	*n*	$40 +				*n*	$0-20	*n*	$20-40	*n*	$40 +			
Salary	Group 1	28	1.84	39	1.87	25	1.71	91	.71	.59	15	2.11	29	1.91	31	1.86	74	.42	.79
Salary	Group 2	27	2.00	39	1.87	25	1.52	90	2.19	.08	15	1.80	29	2.03	31	2.21	74	1.29	.28
Salary	Group 3	28	2.57	39	2.61	25	2.50	91	1.25	.30	15	2.41	29	2.52	31	2.50	74	.30	.88
Salary	Group 4	28	1.82	39	2.08	25	1.64	91	3.65	.01[1]	15	1.86	29	1.97	31	1.65	74	1.28	.28
Salary	Group 5	28	1.19	39	1.29	25	1.25	91	1.01	.40	15	1.23	29	1.36	31	1.24	74	1.01	.41
Salary	Group 6	28	1.90	39	1.71	25	1.76	91	.90	.47	14	1.97	29	1.72	30	1.62	72	.98	.42
Salary	Group 7	28	1.83	39	1.96	25	1.84	91	.64	.64	14	1.67	29	1.98	30	1.93	72	.81	.53
Salary	Group 8	28	2.43	39	2.34	25	2.34	91	.38	.83	14	2.24	29	2.18	30	2.21	72	.49	.75
Salary	Group 9	28	1.93	39	2.00	25	1.91	91	.31	.87	14	1.98	29	1.95	30	1.93	72	.13	.97
Salary	Group 10	28	1.37	39	1.93	25	1.58	91	4.34	.01[2]	14	1.39	29	2.08	30	1.70	72	3.53	.01[1]
Salary	Group 11	28	1.35	39	1.34	25	1.37	91	.10	.98	14	1.30	29	1.43	30	1.34	72	.98	.42
Salary	Group 12	28	1.29	39	1.34	25	1.30	90	1.04	.39	14	1.16	29	1.27	31	1.25	74	.13	.97
Salary	Group 13	28	1.21	39	1.22	25	1.14	90	.25	.91	14	1.21	29	1.20	31	1.10	74	.33	.85
Salary	Group 14	28	1.32	39	1.63	25	1.62	90	1.85	.13	15	1.20	29	1.29	31	1.30	74	.64	.64
Salary	Group 15	28	1.29	39	1.23	24	1.17	90	.64	.64	15	1.06	29	1.06	31	1.00	74	1.95	.11

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
2 Scheffe Test shows $0-10000 Group being significantly different from $30-40000 at the 0.05 level

Table 7 continued over page

Table 7 - : continuation of Scales by Salary : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob
		n	$0-20	*n*	$20-40	*n*	$40 +				*n*	$0-20	*n*	$20-40	*n*	$40 +			
Salary	Group 16	28	1.50	39	1.67	24	1.60	90	.43	.79	15	1.30	29	1.28	31	1.33	74	.56	.70
Salary	Group 17	28	1.66	39	1.87	25	1.73	91	1.01	.41	15	1.34	29	1.39	31	1.55	74	.84	.50
Salary	Group 18	28	1.83	39	1.85	25	1.72	91	.56	.69	15	1.61	29	1.46	31	1.47	74	.25	.91
Salary	Group 19	28	1.25	39	1.29	25	1.15	91	.95	.44	15	1.27	29	1.24	31	1.15	74	.46	.77
Salary	Group 20	28	1.74	39	1.80	25	1.81	91	.45	.77	15	1.48	29	1.48	31	1.67	74	.86	.49
Salary	Group 21	28	1.27	39	1.16	25	1.34	91	1.25	.30	15	1.33	29	1.12	31	1.23	74	4.39	.003[3]
Salary	Group 22	28	1.86	39	2.15	25	1.95	91	1.57	.19	15	1.75	29	1.87	31	1.92	74	.58	.68
Salary	Group 23	28	1.60	39	1.64	25	1.48	91	.69	.60	15	1.71	29	1.57	31	1.70	74	.49	.74
Salary	Group 24	28	1.42	39	1.50	25	1.43	91	.16	.96	15	1.44	29	1.44	31	1.38	74	.84	.51
Salary	Group 25	28	1.93	39	1.91	25	1.73	91	1.04	.40	15	2.22	29	1.94	31	1.68	74	2.39	.06
Salary	Group 26	28	1.41	39	1.60	25	1.24	91	2.18	.08	15	1.68	29	1.50	31	1.35	74	2.49	.05[1]
Salary	Group 27	28	1.18	39	1.25	25	1.16	91	.74	.57	15	1.28	29	1.05	31	1.23	74	1.17	.33
Salary	Group 28	28	1.37	39	1.45	25	1.33	91	.55	.70	15	1.18	29	1.24	31	1.22	74	2.10	.09
Salary	Group 29	28	1.53	39	1.76	25	1.75	91	.89	.47	15	1.67	29	1.64	31	1.69	74	.24	.91

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[3] Scheffe Test shows $0-10000 Group being significantly different from $30-40000 and $40000 + Groups at the 0.05 level

Occupation of Respondent

An important part of the research was ascertaining the range of occupations. It was expected that the greater part of the respondents would be in the teaching profession.

The categories in Table 8 (Analysis of Variance by Occupation of Respondent) have been compressed from the original eight categories of the modified Elley-Irving Socio-Economic scale into groups of three that best suit the distribution of the responses.(see Appendix 7) The eight categories which the Scheffe test reports on are High Professional, Low professional, Clerical/ Highly skilled, Skilled work, Semi-skilled work, Unskilled/ Repetitive work, retired, Dead, and Home.

Table 8 (Analysis of Variance by Occupation) shows an analysis of variance probabilities for occupation of the respondents and the 29 independent variables. Females show significant difference at the .05 level in Groups 2 (help my children), 4 (need for money) and 26 (time/money). The Scheffe test shows significant difference at the .05 level in all three groups between High professional and the Clerical/highly skilled.

The males show significance at the .05 level in Group 25 (isolation). At the .001 level of significance, Group 10 (same job needs) is indicated. The Scheffe test shows significant difference between Low professional and Clerical/highly skilled at the .05 level of significance.

In summary, females in the Clerical/skilled occupation Group were more motivated to set an example and help their children with their education. The Low professional group were more motivated to enrol for the need of money and were more frustrated by the lack of time and money. On the other hand, males in the Clerical/ skilled occupation Group were more frustrated by the isolation of extramural study. Males in the Low professional Group were more motivated by achievement and promotion within their job.

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Table 8 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Occupation[4] of Respondent : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	High Prof	*n*	Low Prof	*n*	Cler/ Skil				*n*	High Prof	*n*	Low Prof	*n*	Cler/S kill			
Occupation of Respondent	Group 1	22	1.82	61	1.83	3	1.75	85	.31	.82	22	1.87	47	1.88	3	2.25	71	.59	.62
Occupation of Respondent	Group 2	22	1.50	60	1.92	3	2.00	84	3.50	.02[2]	22	2.12	47	2.10	3	1.50	71	1.97	.13
Occupation of Respondent	Group 3	22	2.51	61	2.63	3	2.67	85	1.26	.29	22	2.57	47	2.40	3	2.67	71	1.27	.29
Occupation of Respondent	Group 4	22	1.77	61	2.02	3	1.44	85	3.51	.02[2]	22	1.56	47	1.90	3	2.11	71	1.20	.32
Occupation of Respondent	Group 5	22	1.18	61	1.30	3	1.00	85	.74	.53	22	1.26	47	1.35	3	1.56	71	.57	.63
Occupation of Respondent	Group 6	22	1.93	61	1.72	3	2.11	85	1.54	.21	22	1.66	45	1.67	3	2.00	69	.38	.77
Occupation of Respondent	Group 7	22	1.71	61	1.99	3	1.83	85	.96	.42	22	1.89	45	1.89	3	1.83	69	.11	.96
Occupation of Respondent	Group 8	22	2.47	61	2.35	3	2.33	85	.63	.60	22	2.16	45	2.16	3	2.33	69	.55	.65
Occupation of Respondent	Group 9	22	1.87	61	1.94	3	1.89	85	.14	.93	22	1.86	45	1.89	3	2.33	69	1.98	.13
Occupation of Respondent	Group 10	22	1.63	61	1.80	3	1.22	85	1.79	.15	22	1.45	45	2.04	3	1.33	69	5.40	.00[13]
Occupation of Respondent	Group 11	22	1.33	61	1.36	3	1.42	85	.19	.91	22	1.32	45	1.41	3	1.50	69	.48	.69
Occupation of Respondent	Group 12	21	1.31	61	1.34	3	1.40	84	.21	.89	22	1.34	47	1.22	3	1.27	71	.38	.77
Occupation of Respondent	Group 13	21	1.07	61	1.20	3	1.08	84	.68	.57	22	1.08	47	1.15	3	1.33	71	.69	.56
Occupation of Respondent	Group 14	21	1.53	61	1.54	3	1.27	84	.36	.78	22	1.17	47	1.30	3	1.27	71	.05	.98
Occupation of Respondent	Group 15	21	1.10	61	1.27	3	1.00	84	2.18	.10	22	1.02	47	1.05	3	1.00	71	.38	.77

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows High Professional Group significantly different from Clerical/Highly skilled Group at the 0.05 level
[3] Scheffe Test shows Low Professional Group significantly different from Clerical/Highly skilled Group at the 0.05 level

[4] Categories are modified Elley-Irving Socio-economic Scales - High Prof = Category 1
Low Prof = Category 2
Cler/Skill = Category 3, 4

Table 8 continued over page

Table 8 - : continuation of Scales by Occupation[4] of Respondent : Female, Male

Independent variable	Scale Number	Female						Total *n*	f Ratio	f Prob.	Male						Total *n*	f Ratio	f Prob.
		Mean									Mean								
		n	High Prof	*n*	Low Prof	*n*	Cler/ Skill				*n*	High Prof	*n*	Low Prof	*n*	Cler/ Skill			
Occupation of Respondent	Group 16	22	1.48	61	1.66	3	1.25	84	2.11	.10	22	1.33	47	1.35	3	1.25	71	.10	.96
Occupation of Respondent	Group 17	22	1.68	61	1.80	3	2.07	85	1.60	.20	22	1.53	47	1.47	3	1.27	71	.56	.64
Occupation of Respondent	Group 18	22	1.75	61	1.79	3	1.92	85	.13	.94	22	1.51	47	1.44	3	1.67	71	.68	.57
Occupation of Respondent	Group 19	22	1.14	61	1.26	3	1.11	85	.65	.59	22	1.15	47	1.18	3	1.44	71	1.28	.29
Occupation of Respondent	Group 20	22	1.83	61	1.74	3	1.89	85	.72	.54	22	1.69	47	1.49	3	1.67	71	.77	.51
Occupation of Respondent	Group 21	22	1.15	61	1.28	3	1.00	85	.79	.50	22	1.26	47	1.32	3	1.00	71	1.51	.22
Occupation of Respondent	Group 22	22	2.03	61	2.04	3	1.42	85	1.67	.18	22	1.74	47	1.94	3	1.58	71	2.17	.10
Occupation of Respondent	Group 23	22	1.55	61	1.59	3	1.33	85	.31	.82	22	1.70	47	1.68	3	1.75	71	.30	.83
Occupation of Respondent	Group 24	22	1.48	61	1.48	3	1.17	85	.82	.49	22	1.31	47	1.45	3	1.33	71	1.90	.14
Occupation of Respondent	Group 25	22	1.91	61	1.88	3	1.67	85	.40	.75	22	1.63	47	1.92	3	2.17	71	2.74	.05[1]
Occupation of Respondent	Group 26	22	1.26	61	1.55	3	1.33	85	3.07	.03[2]	22	1.51	47	1.51	3	1.67	71	.33	.81
Occupation of Respondent	Group 27	22	1.15	61	1.23	3	1.00	85	.51	.68	22	1.20	47	1.18	3	1.17	71	.37	.78
Occupation of Respondent	Group 28	22	1.38	61	1.39	3	1.00	85	.96	.41	22	1.14	47	1.28	3	1.11	71	1.28	.29
Occupation of Respondent	Group 29	22	1.66	61	1.70	3	1.56	85	.27	.85	22	1.59	47	1.67	3	1.56	71	.72	.54

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows High Professional Group significantly different from Clerical/Highly skilled Group at the 0.05 level

[4] Categories are modified Elley-Irving Socio-economic Scales - High Prof = Category 1
Low Prof = Category 2
Cler/Skilled = Category 3, 4

Education of Mother

It is possible that the educational attainment of the mother of the respondent could be instrumental in the motivational reasons in the decision to begin extramural study.

The three categories the Scheffe test uses for its range are Primary School educated, Secondary School educated and Tertiary educated. These are the same categories that were used in the questionnaire.

Table 9 (Analysis of Variance by Education of Mother) shows that significant differences exist between education of mother and Groups 8 (personal challenge), 11 (new job needs), 16 (other roles), 18 (use time), and 26 (time/money) at the .05 level. The Scheffe test shows that Group 8 (personal challenge) and Group 16 (other roles) is significantly different at the .05 level between the Primary education Group and the Tertiary education Group. The Scheffe test also shows that Group 11 (new job needs) and Group 26 (time/money) are significantly different between the Secondary education Group and the Tertiary education Group. At the .01 level of significance, Group 28 (child-care) is indicated. The Scheffe test shows the Tertiary Group being significantly different from the Secondary and Primary Groups at the .05 level. At the .001 level of significance, Group 12 (no resources) and Group 17 (new life-role) are indicated as significant. The Scheffe test shows that Group 12 (no resources) is significantly different at the .05 level

between the Primary group and the Tertiary Group. The Scheffe test also shows that Group 17 (new life-role) shows the Primary Group being significantly different from the Secondary and Tertiary Groups at the .05 level.

Males show only one significant difference at the .001 level with Group 13 (self-image needs). The Scheffe test shows the Tertiary Group being significantly different from the Primary group and the Secondary Group at the .005 level.

In summary, females of Primary-educated mothers were more motivated by personal challenge, while females of Secondary-educated mothers were more motivated by needing a degree for a better job. Barriers to prior enrolment for females of Primary-educated mothers were the demands of parenting and a lack of resources, while the main enabling event was the possibility of a new life role. The major frustration for females of Primary-educated mothers was the demands of child care, while for females of Secondary-educated mothers, the main frustration was lack of time and money. For males of Tertiary-educated mothers, a barrier to prior enrolment was self-image needs.

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Table 9 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Education of Mother : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Prim.	*n*	Sec.	*n*	Tert.				*n*	Prim.	*n*	Sec.	*n*	Tert.			
Education of Mother	Group 1	25	1.89	49	1.82	18	1.76	91	.36	.70	24	1.74	41	1.93	10	2.10	74	2.28	.11
Education of Mother	Group 2	25	2.02	48	1.80	18	1.69	90	.98	.38	24	2.27	41	2.09	10	1.95	74	.72	.49
Education of Mother	Group 3	25	2.72	49	2.57	18	2.44	91	1.30	.28	24	2.42	41	2.52	10	2.45	74	.23	.80
Education of Mother	Group 4	25	2.03	49	1.92	18	1.00	91	1.52	.23	24	1.68	41	1.88	10	1.97	74	.91	.41
Education of Mother	Group 5	25	1.28	49	1.24	18	1.30	91	.13	.88	24	1.31	41	1.33	10	1.30	74	.02	.98
Education of Mother	Group 6	25	1.87	49	1.78	18	1.63	91	1.17	.32	23	1.64	40	1.74	10	1.73	72	.27	.76
Education of Mother	Group 7	25	1.78	49	1.94	18	1.94	91	.57	.57	23	1.87	40	1.95	10	1.85	72	.15	.86
Education of Mother	Group 8	25	2.54	49	2.35	18	2.16	91	4.25	.02[4]	23	2.29	40	2.14	10	2.18	72	.79	.46
Education of Mother	Group 9	25	2.15	49	1.91	18	1.84	91	1.77	.18	23	1.89	40	1.97	10	1.97	72	.17	.84
Education of Mother	Group 10	25	1.64	49	1.80	18	1.41	91	2.68	.07	23	1.77	40	1.85	10	2.00	72	.51	.61
Education of Mother	Group 11	25	1.36	49	1.42	18	1.13	91	3.84	.03[3]	23	1.29	40	1.48	10	1.51	72	1.65	.20
Education of Mother	Group 12	25	1.54	49	1.31	17	1.06	90	5.70	.001[4]	24	1.28	41	1.20	10	1.30	74	.45	.64
Education of Mother	Group 13	25	1.26	49	1.17	17	1.16	90	.51	.60	24	1.05	41	1.13	10	1.45	74	6.59	.001[5]
Education of Mother	Group 14	25	1.64	49	1.56	17	1.26	90	2.90	.06	24	1.34	41	1.23	10	1.44	74	1.63	.20

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[3] Scheffe Test shows Primary Group being significantly different from the Secondary and Tertiary Group at the 0.05 level
[3] Scheffe Test shows Secondary Group being significantly different from the Tertiary Group at the 0.05 level
[4] Scheffe Test shows Primary Group being significantly different from the Tertiary Group at the 0.05 level
[5] Scheffe Test shows Tertiary Group being significantly different from the Primary Group and Secondary Group at the 0.05 level

Table 9 continued over page

Table 9 - : continuation of Scales by Education of Mother : Females and Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Prim.	*n*	Sec.	*n*	Tert.				*n*	Prim.	*n*	Sec.	*n*	Tert.			
Education of Mother	Group 15	25	1.30	49	1.24	17	1.09	90	1.59	.21	24	1.04	41	1.04	10	1.05	74	.04	.96
Education of Mother	Group 16	25	1.78	49	1.58	17	1.37	90	4.17	.02[4]	24	1.36	41	1.30	10	1.45	74	.77	.47
Education of Mother	Group 17	25	2.09	49	1.74	18	1.38	91	9.30	.000[2]	24	1.57	41	1.40	10	1.62	74	1.87	.16
Education of Mother	Group 18	25	1.98	49	1.72	18	1.74	91	3.18	.05[1]	24	1.43	41	1.47	10	1.48	74	.11	.90
Education of Mother	Group 19	25	1.36	49	1.18	18	1.19	91	2.70	.07	24	1.17	41	1.20	10	1.17	74	.17	.85
Education of Mother	Group 20	25	1.89	49	1.78	18	1.61	91	1.79	.17	24	1.56	41	1.52	10	1.63	74	.23	.79
Education of Mother	Group 21	25	1.36	49	1.23	18	1.17	91	1.27	.29	24	1.17	41	1.27	10	1.45	74	1.64	.20
Education of Mother	Group 22	25	2.09	49	2.04	18	1.80	91	2.18	.12	24	2.02	41	1.86	10	1.95	74	.65	.53
Education of Mother	Group 23	25	1.68	49	1.59	18	1.46	91	1.16	.32	24	1.72	41	1.67	10	1.73	74	.09	.91
Education of Mother	Group 24	25	1.54	49	1.46	18	1.32	91	1.21	.30	24	1.52	41	1.40	10	1.53	74	.77	.47
Education of Mother	Group 25	25	1.15	49	1.89	18	1.74	91	.72	.49	24	1.92	41	1.91	10	1.85	74	.05	.95
Education of Mother	Group 26	25	1.36	49	1.59	18	1.19	91	4.18	.02[3]	24	1.44	41	1.52	10	1.50	74	.22	.81
Education of Mother	Group 27	25	1.18	49	1.21	18	1.14	91	.24	.79	24	1.27	41	1.16	10	1.25	74	.55	.58
Education of Mother	Group 28	25	1.49	49	1.44	18	1.11	91	5.12	.01[5]	24	1.31	41	1.21	10	1.30	74	.70	.50
Education of Mother	Group 29	25	1.79	49	1.74	18	1.43	91	2.89	.06	24	1.64	41	1.64	10	1.80	74	.44	.65

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows Primary Group being significantly different from the Secondary and Tertiary Group at the 0.05 level
[3] Scheffe Test shows Secondary Group being significantly different from the Tertiary Group at the 0.05 level
[4] Scheffe Test shows Primary Group being significantly different from the Tertiary Group at the 0.05 level
[5] Scheffe Test shows Tertiary Group being significantly different from the Primary and Secondary Groups at the 0.05 level

Education of Father

Education of the Father could prove to be an important independent variable in the determining of the motivational reasons surrounding the decision to study extramurally.

The three categories the Scheffe test uses for its range are Primary school educated, Secondary school educated and Tertiary educated. These are the same categories as were used in the questionnaire.

Table 10 (Analysis of Variance by Education of Father) shows the analysis of variance and *f* probabilities for the 29 motivation scales by education of father. The females show significant differences at the .05 level with Groups 4 (need for money), 9 (self-improvement), 14 (over-loaded) and 16 (other roles). The Scheffe test shows the Primary education Group being significantly different from the Secondary Group at the .05 level for Groups 9 (self-improvement), 14 (over-loaded) and 16 (other roles). At the .01 level of significance Group 8 (personal challenge) is indicated. The Scheffe test shows the Primary education Group being significantly different from the Secondary education Group at the .05 level. At the .001 level, Groups 12 (no resources) and 17 (new life-role) are indicated. The Scheffe test shows the Primary education Group being significantly different from the Secondary education and Tertiary education Groups.

The males show a significant difference at the .05 level for Group 11 (new job needs). The Scheffe indicates that the Primary education Group is significantly different from the Secondary education Group at the .05 level. At the .01 level of significance, Group 1 (need more status) is indicated. The Scheffe test shows the Primary education Group being significantly different from the Secondary education and the Tertiary education Groups at the .05 level.

In summary, females of Primary-educated fathers showed their main motivations as self-improvement and personal challenge. Barriers for this Group were parenting demands, lack of resources and too many other roles. The main enabling event to enrol for females of Primary-educated fathers was the possibility of a new life role. For males of Secondary-educated fathers, the major motivation was the need to gain a degree for a better job. The main motivation of Tertiary-educated fathers was the need to improve their status in life.

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Table 10 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Education of Father : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Prim.	*n*	Sec.	*n*	Tert				*n*	Prim.	*n*	Sec.	*n*	Tert.			
Education of Father	Group 1	32	1.91	36	1.80	23	1.76	90	.77	.47	25	1.66	34	1.99	16	2.05	74	4.76	.01[3]
Education of Father	Group 2	32	2.09	36	1.74	22	1.68	89	2.40	.10	25	2.16	34	2.18	16	1.97	74	.41	.66
Education of Father	Group 3	32	2.72	36	2.50	23	2.57	90	1.33	.27	25	2.48	34	2.54	16	2.34	74	.55	.58
Education of Father	Group 4	32	2.11	36	1.79	23	1.80	90	3.04	.05[1]	25	1.60	34	1.99	16	1.83	74	2.57	.08
Education of Father	Group 5	32	1.35	36	1.19	23	1.23	90	1.26	.29	25	1.17	34	1.33	16	1.50	74	2.81	.07
Education of Father	Group 6	32	1.80	36	1.71	23	1.78	90	.28	.75	24	1.63	34	1.72	15	1.82	72	.61	.55
Education of Father	Group 7	32	1.95	36	1.79	23	2.00	90	.91	.41	24	1.85	34	1.91	15	2.00	72	.21	.81
Education of Father	Group 8	32	2.54	36	2.22	23	2.36	90	4.88	.01[3]	24	2.25	34	2.21	15	2.05	72	.88	.42
Education of Father	Group 9	32	2.16	36	1.78	23	1.97	90	3.50	.03[3]	24	1.89	34	2.06	15	1.77	72	1.89	.16
Education of Father	Group 10	32	1.65	36	1.80	23	1.57	90	1.05	.35	24	1.63	34	1.96	15	1.93	72	2.45	.09
Education of Father	Group 11	32	1.43	36	1.28	23	1.33	90	1.16	.32	24	1.26	34	1.57	15	1.36	72	4.38	.02[3]
Education of Father	Group 12	32	1.59	35	1.26	23	1.07	89	10.22	.001[2]	25	1.27	34	1.26	16	1.13	74	.91	.41
Education of Father	Group 13	32	1.30	35	1.05	23	1.12	89	1.91	.15	25	1.09	34	1.18	16	1.17	74	.68	.51
Education of Father	Group 14	32	1.73	35	1.38	23	1.47	89	3.84	.03[3]	25	1.40	34	1.23	16	1.28	74	1.69	.19
Education of Father	Group 15	32	1.33	35	1.23	23	1.11	89	2.17	.12	25	1.02	34	1.04	16	1.06	74	.49	.61

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows the Primary Group being significantly different from Secondary and Tertiary Groups at the 0.05 level
[3] Scheffe Test shows Primary Group being significantly different from Secondary Group at the 0.05 level

Table 10 continued over page

Table 10 - : continuation of Scales by Education of Father

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Prim.	*n*	Sec.	*n*	Tert.				*n*	Prim.	*n*	Sec.	*n*	Tert.			
Education of Father	Group 16	32	1.79	35	1.50	23	1.59	89	4.28	.02[3]	25	1.41	34	1.31	16	1.31	74	.69	.50
Education of Father	Group 17	32	2.06	36	1.64	23	1.57	90	7.10	.001[2]	25	1.55	34	1.46	16	1.43	74	.55	.58
Education of Father	Group 18	32	1.91	36	1.71	23	1.79	90	1.72	.18	25	1.42	34	1.45	16	1.53	74	.43	.65
Education of Father	Group 19	32	1.24	36	1.25	23	1.17	90	.38	.69	25	1.15	35	1.23	16	1.17	74	.66	.52
Education of Father	Group 20	32	1.90	36	1.71	23	1.72	90	1.41	.25	25	1.40	34	1.63	16	1.60	74	1.85	.16
Education of Father	Group 21	32	1.27	36	1.24	23	1.26	90	.05	.95	25	1.14	34	1.29	16	1.38	74	1.75	.18
Education of Father	Group 22	32	2.02	36	2.09	23	1.87	90	1.39	.26	25	2.00	34	1.94	16	1.76	74	.96	.39
Education of Father	Group 23	32	1.65	36	1.58	23	1.52	90	.48	.62	25	1.59	34	1.71	16	1.81	74	1.06	.35
Education of Father	Group 24	32	1.49	36	1.47	23	1.40	90	.25	.78	25	1.48	34	1.49	16	1.43	74	.84	.44
Education of Father	Group 25	32	1.97	36	1.85	23	1.79	90	.63	.53	25	1.91	34	1.97	16	1.75	74	.80	.45
Education of Father	Group 26	32	1.52	36	1.43	23	1.37	90	.49	.62	25	1.42	34	1.54	16	1.50	74	.42	.66
Education of Father	Group 27	32	1.30	36	1.11	23	1.17	90	1.83	.17	25	1.14	34	1.22	16	1.28	74	.54	.59
Education of Father	Group 28	32	1.49	36	1.38	23	1.26	90	1.86	.16	25	1.29	34	1.24	16	1.23	74	.26	.77
Education of Father	Group 29	32	1.77	36	1.65	23	1.67	90	.47	.62	25	1.71	34	1.65	16	1.63	74	.16	.86

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows the Primary Group being significantly different from Secondary and Tertiary Groups at the 0.05 level
[3] Scheffe Test shows Primary Group being significantly different from Secondary Group at the 0.05 level

Occupation of the Mother When the Respondent was a Child

It is possible that the mother's occupation when the respondent was a child might have some bearing on the decisions to study extramurally. These have been compressed from the original eight categories of the modified Elley-Irving Socio-Economic scale into groups of three that best suit the distribution of the responses.(Appendix 7) The eight categories which the Scheffe test reports on are High Professional, Low professional, Clerical/ Highly skilled, Skilled work, Semi-skilled work, Unskilled/ Repetitive work, retired, Dead, and Home.

Table 11 (Analysis of Variance by Occupation of Mother when Respondent a Child) shows the *f* probabilities for the analysis of variance by the 29 motivation scales. At the .05 level of significance, females are indicated in Groups 12 (no resources), 18 (use time) and 19 (follow others). The Scheffe test shows that none of the motivations within are significantly different at the .05 level.

Males show a significant difference at the .05 level in Groups 20 (convenience) and 22 (home demands). The Scheffe test shows that none of the motivations within are significant at the .05 level. At the .01 level of significance, Group 26 (time/money) is indicated. The Scheffe test shows that the Clerical/highly skilled group is significantly different at the .05 level from the Home Group.

In summary, although the Scheffe test for females shows no large differences between any Group and the occupation of the mother when the respondent was a child, the means indicate some relationship. For females whose mothers were in the Skilled Group, a barrier in the decision to enrol earlier was the lack of resources, while an enabling event was following others. However, for females of the Retired/ home Group an enabling event was wanting something to do in their spare time. For males whose mothers' occupation was Skilled, an enabling event was the convenience of extramural study, while the main frustration for this Group was home demands. The main frustration for males whose mothers' occupation was Professional/ clerical, was lack of time and money.

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Table 11 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Occupation[3] of Mother when Respondent was Child : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Prof/ Cler	*n*	Skilled	*n*	Home				*n*	Prof/ Cler	*n*	Skilled	*n*	Home			
Occupation of Mother when Respondent was Child	Group 1	18	1.80	19	1.86	55	1.85	91	.18	.97	19	2.10	14	1.94	43	1.78	75	1.26	.29
Occupation of Mother when Respondent was Child	Group 2	18	1.95	18	1.67	55	1.84	90	.23	.95	19	2.11	14	2.40	43	2.09	75	1.33	.26
Occupation of Mother when Respondent was Child	Group 3	18	2.35	19	2.57	55	2.62	91	.12	.99	19	2.53	14	2.73	43	2.40	75	.51	.77
Occupation of Mother when Respondent was Child	Group 4	18	1.79	19	2.12	55	1.87	91	.50	.78	19	2.03	14	1.84	43	1.76	75	1.66	.16
Occupation of Mother when Respondent was Child	Group 5	18	1.32	19	1.30	55	1.25	91	.74	.60	19	1.30	14	1.42	43	1.31	75	.31	.91
Occupation of Mother when Respondent was Child	Group 6	18	1.57	19	1.58	55	1.86	91	2.00	.09	18	1.72	14	2.00	42	1.63	73	1.00	.42
Occupation of Mother when Respondent was Child	Group 7	18	1.87	19	2.08	55	1.89	91	.50	.78	18	1.81	14	2.18	42	1.92	73	.46	.80
Occupation of Mother when Respondent was Child	Group 8	18	2.18	19	2.32	55	2.37	91	.24	.94	18	2.20	14	2.34	42	2.13	73	.72	.61
Occupation of Mother when Respondent was Child	Group 9	18	2.01	19	1.90	55	1.95	91	.20	.96	18	2.05	14	2.11	42	1.87	73	1.47	.21
Occupation of Mother when Respondent was Child	Group 10	18	1.76	19	1.96	55	1.62	91	1.09	.37	18	2.01	14	1.88	42	1.77	73	2.01	.09
Occupation of Mother when Respondent was Child	Group 11	18	1.23	19	1.47	55	1.36	91	.92	.47	18	1.48	14	1.22	42	1.45	73	1.44	.22
Occupation of Mother when Respondent was Child	Group 12	18	1.03	19	1.61	54	1.34	90	2.89	.02[1]	19	1.29	14	1.34	43	1.20	75	.37	.73
Occupation of Mother when Respondent was Child	Group 13	18	1.10	19	1.21	54	1.20	90	.40	.85	19	1.29	14	1.13	43	1.11	75	1.96	.09
Occupation of Mother when Respondent was Child	Group 14	18	1.31	19	1.31	54	1.64	90	1.75	.13	19	1.43	14	1.34	43	1.23	75	1.35	.25
Occupation of Mother when Respondent was Child	Group 15	18	1.04	19	1.30	54	1.26	90	1.03	.41	19	1.08	14	1.02	43	1.02	75	.67	.65

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level

[3] Categories based on modified Elley-Irving Socio Economic Scale -Prof/Cleric = Categories 1, 2, 3
Skilled = Categories 4, 5, 6
Home = Retired, Dead, Home

Table 11 continued over page

Table 11 - : continuation of Scales by Occupation[3] of Mother when Respondent was Child : Female, Male

Independent variable	Scale Number	Female									Male								
		Mean						Total n	f Ratio	f Prob.	Mean						Total n	f Ratio	f Prob.
		n	Prof/ Cler	n	Skilled	n	Ret/ Home				n	Prof/ Cler	n	Skilled	n	Ret/Home			
Occupation of Mother when Respondent was Child	Group 16	18	1.42	19	1.48	54	1.68	90	.56	.18	19	1.49	14	1.36	43	1.28	75	.98	.43
Occupation of Mother when Respondent was Child	Group 17	18	1.46	19	1.71	55	1.87	91	1.30	.27	19	1.55	14	1.67	43	1.46	75	.98	.43
Occupation of Mother when Respondent was Child	Group 18	18	1.62	19	1.64	55	1.91	91	3.13	.01[1]	19	1.51	14	1.45	43	1.46	75	.15	.98
Occupation of Mother when Respondent was Child	Group 19	18	1.10	19	1.40	55	1.23	91	2.56	.03[1]	19	1.23	14	1.23	43	1.15	75	.57	.72
Occupation of Mother when Respondent was Child	Group 20	18	1.64	19	1.65	55	1.87	91	.99	.43	19	1.64	14	1.74	43	1.51	75	2.66	.03[1]
Occupation of Mother when Respondent was Child	Group 21	18	1.31	19	1.29	55	1.19	91	1.44	.22	19	1.36	14	1.14	43	1.24	75	.47	.80
Occupation of Mother when Respondent was Child	Group 22	18	2.06	19	2.02	55	1.91	91	.53	.75	19	2.13	14	2.19	43	1.79	75	2.99	.02[1]
Occupation of Mother when Respondent was Child	Group 23	18	1.58	19	1.58	55	1.61	91	.39	.86	19	1.71	14	1.87	43	1.67	75	.61	.69
Occupation of Mother when Respondent was Child	Group 24	18	1.44	19	1.22	55	1.50	91	1.68	.15	19	1.54	14	1.58	43	1.42	75	1.46	.21
Occupation of Mother when Respondent was Child	Group 25	18	1.85	19	1.99	55	1.85	91	.38	.86	19	1.96	14	1.91	43	1.89	75	.48	.79
Occupation of Mother when Respondent was Child	Group 26	18	1.29	19	1.65	55	1.47	91	.98	.43	19	1.75	14	1.55	43	1.36	75	3.70	.01[2]
Occupation of Mother when Respondent was Child	Group 27	18	1.10	19	1.36	55	1.16	91	1.94	.10	19	1.27	14	1.38	43	1.16	75	1.37	.25
Occupation of Mother when Respondent was Child	Group 28	18	1.34	19	1.32	55	1.41	91	.20	.96	19	1.33	14	1.39	43	1.21	75	1.52	.20
Occupation of Mother when Respondent was Child	Group 29	18	1.58	19	1.61	55	1.71	91	2.03	.08	19	1.77	14	1.42	43	1.63	75	.86	.51

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows Clerical/highly skilled Group significantly different from the Home Group at the 0.05 level
[3] Categories based on modified Elley-Irving Socio Economic Scale -Prof/Cleric = Categories 1, 2, 3
Skilled = Categories 4, 5, 6
Home = Retired, Dead, Home

Occupation of the Father when the Respondent was a Child

It could be hypothesised that the occupation of the father when the respondent was a child might have some influence on the motivating reasons of the respondent to study extramurally.

These have been compressed from the original eight categories of the modified Elley-Irving Socio-Economic scale into groups of three that best suit the distribution of the responses.(Appendix 7) The eight categories which the Scheffe test reports on are High Professional, Low professional, Clerical/ Highly skilled, Skilled work, Semi-skilled work, Unskilled/ Repetitive work, retired, Dead, and Home.

Table 12 (Analysis of Variance by Occupation of Father when Respondent a Child) shows the analysis of variance and *f* probabilities for the 29 motivation scales. The females show significant differences at the .05 level in Groups 10 (same job needs), 12 (no resources), 17 (new life-role), 22 (home demands) and 29 (timing). The Scheffe test shows the High professional Group being significantly different at the .05 level from the Unskilled/repetitive work Group in Group 17 (new life-role). At the .01 level of significance, Groups 5 (influences of others) and 23 (study skill) were indicated. For Group 5 (influences of others) the

Scheffe test showed that the Unskilled/repetitive work Group is significantly different from the Low professional and Skilled work Groups at the .05 level. The male sample show no significant differences between Groups.

In summary, females whose fathers' occupations (when the respondent was a child) were in the High professional Group were much less likely to nominate a new life role as a motivation than the Unskilled Group. For females whose fathers were formerly in the Unskilled Group, the main motivation was the influence of others, with the main frustration being difficulties with study skills.

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Table 12 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Occupation[4] of Father when Respondent was Child : Females, Males

Independent variable	Scale Number	Female						Total *n*	f Ratio	f Prob.	Male						Total *n*	f Ratio	f Prob.
		Mean									Mean								
		n	Prof.	*n*	Cler/ Skilled	*n*	Unskilled				*n*	Prof.	*n*	Cler/ Skilled	*n*	Unskilled			
Occupation of Father when Respondent was Child	Group 1	28	1.75	53	1.86	9	1.88	89	1.52	.19	18	2.18	43	1.81	15	1.83	75	1.16	.34
Occupation of Father when Respondent was Child	Group 2	28	1.53	52	1.91	9	2.19	88	1.96	.09	18	1.85	43	2.22	15	2.26	75	1.16	.34
Occupation of Father when Respondent was Child	Group 3	28	2.44	53	2.61	9	2.65	89	1.05	.39	18	2.42	43	2.45	15	2.70	75	.83	.53
Occupation of Father when Respondent was Child	Group 4	28	1.78	53	1.96	9	2.11	89	2.04	.08	18	1.82	43	1.86	15	1.75	75	.08	1.00
Occupation of Father when Respondent was Child	Group 5	28	1.25	53	1.20	9	1.68	89	3.34	.01[2]	18	1.37	43	1.40	15	1.15	75	1.22	.31
Occupation of Father when Respondent was Child	Group 6	28	1.68	53	1.75	9	1.98	89	1.08	.38	16	1.88	43	1.75	15	1.49	73	1.71	.14
Occupation of Father when Respondent was Child	Group 7	28	1.83	53	1.91	9	2.00	89	.43	.93	16	2.04	43	1.92	15	1.92	73	1.07	.39
Occupation of Father when Respondent was Child	Group 8	28	2.25	53	2.40	9	2.46	89	1.16	.34	16	2.16	43	2.19	15	2.26	73	1.10	.37
Occupation of Father when Respondent was Child	Group 9	28	1.75	53	2.03	9	2.13	89	1.69	.15	16	1.86	43	1.96	15	2.04	73	.93	.47
Occupation of Father when Respondent was Child	Group 10	28	1.49	53	1.78	9	1.59	89	2.28	.05[1]	16	1.88	43	1.85	15	1.79	73	.08	1.00
Occupation of Father when Respondent was Child	Group 11	28	1.19	53	1.42	9	1.49	89	2.05	.08	16	1.48	43	1.43	15	1.34	73	.47	.80
Occupation of Father when Respondent was Child	Group 12	28	1.19	52	1.36	9	1.56	88	2.53	.03[1]	18	1.14	43	1.21	15	1.31	75	1.55	.19
Occupation of Father when Respondent was Child	Group 13	28	1.10	52	1.20	9	1.33	88	.67	.65	18	1.22	43	1.15	15	1.13	75	.38	.86
Occupation of Father when Respondent was Child	Group 14	28	1.33	52	1.56	9	1.66	88	.92	.47	18	1.20	43	1.32	15	1.32	75	.70	.62
Occupation of Father when Respondent was Child	Group 15	28	1.06	52	1.30	9	1.28	88	1.44	.22	18	1.06	43	1.02	15	1.03	75	1.36	.25

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows Unskilled /Repetitive work Group is significantly different from Low Professional and Skilled work Groups at the 0.05 level
[4] Categories based on modified Elley-Irving Socio Economic Scale -Prof = Categories 1, 2
Cler/Skilled = Categories 3, 4
Unskilled = Categories 5, 6

Table 12 continued over page

Table 12 - : continuation of Scales by Occupation[4] of Father when Respondent was Child : Female, Male

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Prof.	*n*	Cler/ Skilled	*n*	Unskilled				*n*	Prof.	*n*	Cler/ Skilled	*n*	Unskilled			
Occupation of Father when Respondent was Child	Group 16	28	1.39	52	1.65	9	1.82	88	1.61	.17	18	1.24	43	1.38	15	1.32	75	.76	.58
Occupation of Father when Respondent was Child	Group 17	28	1.46	53	1.82	9	2.19	89	3.01	.02[3]	18	1.54	43	1.46	15	1.55	75	.38	.86
Occupation of Father when Respondent was Child	Group 18	28	1.69	53	1.83	9	1.83	89	.69	.63	18	1.55	43	1.45	15	1.46	75	.81	.55
Occupation of Father when Respondent was Child	Group 19	28	1.13	53	1.24	9	1.47	89	2.17	.07	18	1.18	43	1.18	15	1.22	75	.15	.98
Occupation of Father when Respondent was Child	Group 20	28	1.81	53	1.72	9	1.87	89	1.09	.37	18	1.59	43	1.58	15	1.49	75	.43	.82
Occupation of Father when Respondent was Child	Group 21	28	1.19	53	1.25	9	1.48	89	1.28	.28	18	1.48	43	1.20	15	1.21	75	1.64	.16
Occupation of Father when Respondent was Child	Group 22	28	1.84	53	2.09	9	2.03	89	2.32	.05[1]	18	1.72	43	1.95	15	2.00	75	1.28	.28
Occupation of Father when Respondent was Child	Group 23	28	1.44	53	1.63	9	2.34	89	3.29	.01[1]	18	1.75	43	1.72	15	1.74	75	1.10	.37
Occupation of Father when Respondent was Child	Group 24	28	1.38	53	1.46	9	1.69	89	1.81	.12	18	1.45	43	1.49	15	1.42	75	.65	.66
Occupation of Father when Respondent was Child	Group 25	28	1.73	53	1.94	9	2.10	89	2.18	.06	18	1.71	43	1.90	15	2.04	75	.83	.54
Occupation of Father when Respondent was Child	Group 26	28	1.43	53	1.42	9	1.58	89	1.94	.10	18	1.28	43	1.55	15	1.49	75	.84	.52
Occupation of Father when Respondent was Child	Group 27	28	1.03	53	1.28	9	1.28	89	1.42	.23	18	1.30	43	1.20	15	1.17	75	.77	.57
Occupation of Father when Respondent was Child	Group 28	28	1.24	53	1.48	9	1.32	89	1.30	.27	18	1.19	43	1.29	15	1.24	75	.05	.39
Occupation of Father when Respondent was Child	Group 29	28	1.58	53	1.69	9	2.10	89	2.81	.02[1]	18	1.68	43	1.69	15	1.64	75	.29	.92

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[3] Scheffe Test shows High Professional Group being significantly different from Unskilled / Repetitive work Group at the 0.05 level
[4] Categories based on modified Elley-Irving Socio Economic Scale -Prof = Categories 1, 2
Cler/Skilled = Categories 3, 4
Unskilled = Categories 5, 6

Occupation of Mother Now

It is possible that a change in the mother's occupation and her occupation at present might have had some influence over the motivations of the respondent's decision to study extramurally.

The occupational categories in Table 13 (Analysis of Variance by Occupation of Mother Now) have been compressed from the original eight categories of the modified Elley-Irving Socio-economic scale into groups of three that best suit the distribution of the responses.(Appendix 7) The eight categories which the Scheffe test reports on are High Professional, Low professional, Clerical/ Highly skilled, Skilled work, Semi-skilled work, Unskilled/ Repetitive work, retired, Dead, and Home.

The analysis of variance and *f* probabilities in Table 13 (Analysis of Variance by Occupation of Mother Now) indicates that Groups 2 (help my children), 14 (over-loaded) and 20 (convenience), are significant at the .05 level. At the .01 level of significance, is Group 17 (new life-role). The Scheffe test shows no two Groups are significantly different at the .05 level for females.

The males show two significant differences. The first - Group 25 (isolation) is indicated at the .05 level and the second - Group 26 (time/money) is indicated at the .000 level. The Scheffe test for Group

26 (time/money) shows that the Clerical/highly skilled Group is significantly different from the Skilled work, Retired, Dead and Home Groups at the .05 level.

In summary, although the Scheffe test for females shows no large differences between any Group and the occupation of the mother now, the means indicate some relationship. A main motivation to enrol for females whose mothers are in the Professional/ clerical Group and the Retired/ home Group, was in order to help their children with their education. Enabling events for the females whose mothers are in the Retired/ home Group were the convenience of extramural study and the possibility of a new life role. A major barrier for this group was parenting demands. Males whose mothers are in the Clerical/ highly skilled Group were much less likely than the other Groups to be frustrated by the lack of time and money.

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Table 13 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Occupation[3] of Mother Now : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Prof/ Cler	*n*	Skilled	*n*	Ret/ Home				*n*	Prof/ Cler	*n*	Skilled	*n*	Ret/ Home			
Occupation of Mother Now	Group 1	15	1.71	13	1.72	62	1.84	89	.45	.84	6	1.85	6	1.58	64	1.89	75	1.03	.40
Occupation of Mother Now	Group 2	15	1.78	12	1.56	62	1.78	88	2.33	.04[1]	6	2.00	6	2.33	64	1.98	75	1.41	.23
Occupation of Mother Now	Group 3	15	2.56	13	2.29	62	2.66	89	1.27	.28	6	1.90	6	2.42	64	2.39	75	1.73	.14
Occupation of Mother Now	Group 4	15	1.69	13	1.98	62	1.88	89	.47	.83	6	1.97	6	1.72	64	1.80	75	1.15	.35
Occupation of Mother Now	Group 5	15	1.19	13	1.23	62	1.28	89	.40	.88	6	1.10	6	1.22	64	1.40	75	1.84	.12
Occupation of Mother Now	Group 6	15	1.67	13	1.74	62	1.79	89	1.03	.41	6	1.40	6	1.72	62	1.67	73	.96	.45
Occupation of Mother Now	Group 7	15	1.91	13	1.70	62	1.93	89	.30	.93	6	1.70	6	2.00	62	1.94	73	.21	.96
Occupation of Mother Now	Group 8	15	2.16	13	2.16	62	2.41	89	.82	.56	6	1.64	6	2.03	62	2.19	73	1.76	.13
Occupation of Mother Now	Group 9	15	1.83	13	1.72	62	2.03	89	1.05	.40	6	1.57	6	1.58	62	1.95	73	1.57	.18
Occupation of Mother Now	Group 10	15	1.38	13	1.35	62	1.74	89	1.10	.37	6	1.80	6	1.89	62	1.80	73	.44	.82
Occupation of Mother Now	Group 11	15	1.22	13	1.19	62	1.38	89	.56	.76	6	1.35	6	1.29	62	1.44	73	1.24	.30
Occupation of Mother Now	Group 12	15	1.10	13	1.21	61	1.33	88	.84	.54	6	1.12	6	1.03	64	1.22	75	1.04	.40
Occupation of Mother Now	Group 13	15	1.13	13	1.14	61	1.19	89	.35	.91	6	1.13	6	1.00	64	1.15	75	.56	.73
Occupation of Mother Now	Group 14	15	1.19	13	1.30	61	1.62	88	2.35	.04[1]	6	1.38	6	1.00	64	1.30	75	1.08	.38
Occupation of Mother Now	Group 15	15	1.10	13	1.15	61	1.25	88	.45	.85	6	1.05	6	1.00	64	1.02	75	1.10	.37

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level

[3] Categories based on modified Elley-Irving Socio Economic Scale -Prof/Cleric = Categories 1, 2, 3
Skilled = Categories 4, 5, 6
Ret/Home = Retired, Dead, Home

Table 13 continued over page

Table 13 - : continuation of Scales by Occupation[3] of Mother Now : Female, Male

Independent variable	Scale Number	Female									Male								
		Mean						Total n	f Ratio	f Prob.	Mean						Total n	f Ratio	f Prob.
		n	Prof/ Cler	n	Skilled	n	Ret/ Home				n	Prof/ Cler	n	Skilled	n	Ret/ Home			
Occupation of Mother Now	Group 16	15	1.35	13	1.37	61	1.67	88	1.63	.15	6	1.43	6	1.08	64	1.35	75	.94	.46
Occupation of Mother Now	Group 17	15	1.44	13	1.32	62	1.85	89	2.90	.01[1]	6	1.30	6	1.27	64	1.50	75	1.10	.37
Occupation of Mother Now	Group 18	15	1.57	13	1.63	62	1.85	89	1.86	.10	6	1.43	6	1.54	64	1.47	75	.56	.73
Occupation of Mother Now	Group 19	15	1.22	13	1.25	62	1.23	89	.57	.75	6	1.10	6	1.17	64	1.17	75	.29	.92
Occupation of Mother Now	Group 20	15	1.49	13	1.62	62	1.86	89	2.55	.03[1]	6	1.60	6	1.33	64	1.54	75	.64	.67
Occupation of Mother Now	Group 21	15	1.22	13	1.14	62	1.30	89	1.15	.24	6	1.15	6	1.33	64	1.25	75	.19	.97
Occupation of Mother Now	Group 22	15	1.83	13	1.76	62	2.05	89	1.00	.43	6	2.09	6	1.60	64	1.84	75	1.74	.14
Occupation of Mother Now	Group 23	15	1.36	13	1.46	62	1.62	89	.70	.65	6	1.40	6	1.58	64	1.72	75	1.02	.41
Occupation of Mother Now	Group 24	15	1.32	13	1.45	62	1.45	89	.30	.93	6	1.88	6	1.33	64	1.42	75	1.96	.10
Occupation of Mother Now	Group 25	15	1.86	13	1.79	62	1.84	89	.45	.84	6	1.63	6	2.08	64	1.88	75	2.60	.03[1]
Occupation of Mother Now	Group 26	15	1.30	13	1.81	62	1.42	89	2.12	.06	6	1.65	6	1.33	64	1.38	75	5.36	.000[2]
Occupation of Mother Now	Group 27	15	1.06	13	1.15	62	1.21	89	.43	.86	6	1.60	6	1.00	64	1.16	75	1.84	.12
Occupation of Mother Now	Group 28	15	1.20	13	1.24	62	1.41	89	.66	.68	6	1.30	6	1.06	64	1.23	75	1.52	.20
Occupation of Mother Now	Group 29	15	1.51	13	1.60	62	1.73	89	.55	.77	6	1.47	6	1.61	64	1.62	75	.94	.46

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows Clerical/Highly Skilled Group is significantly different from Skilled work, Retired, Dead and Home Groups at the 0.050 level
[3] Categories based on modified Elley-Irving Socio Economic Scale -Prof/Cleric = Categories 1, 2, 3
Skilled = Categories 4, 5, 6
Ret/Home = Retired, Dead, Home

Occupation of Father Now

The father's occupation at present might have influence on the motivations of the respondent to enrol extramurally. The categories in Table 14 (Analysis of variance by Occupation of Father Now) have been compressed from the original eight categories of the modified Elley-Irving Socio-Economic scale into groups of three that best suit the distribution of the responses.(Appendix 7) The eight categories which the Scheffe test reports on are High Professional, Low professional, Clerical/ Highly skilled, Skilled work, Semi-skilled work, Unskilled/ Repetitive work, retired, Dead, and Home.

Table 14 (Analysis of Variance by Occupation of Father Now) shows that significant differences exist for females only in Group 10 (same job needs). The Scheffe test shows that no two Groups are significantly different at the .05 level.

The males show two significant differences, both at the .05 level. Group 5 (influences of others) and Group 26 (time/money) are indicated. The Scheffe test indicates that no significant differences exist at the .05 level.

In summary, although the Scheffe test for females and males shows no large differences between any Group and the occupation of the father

now, the means indicate some relationship. A main motivation to enrol for females whose fathers are in the Unskilled Group, was achievement and promotion within a job. For males whose fathers are in the Unskilled Group, a main motivation was the influences of others, and the main frustration was lack of time and money.

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Table 14 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Occupation[4] of Father Now : Females, Males

Independent variable	Scale Number	Female						Total *n*	f Ratio	f Prob.	Male						Total *n*	f Ratio	f Prob.
		Mean									Mean								
		n	Prof/Cler	*n*	Unskilled	*n*	Ret/Home				*n*	Prof/Cler	*n*	Unskilled	*n*	Ret/Home			
Occupation of Father Now	Group 1	19	1.75	3	1.88	68	1.85	89	.72	.64	8	2.10	5	2.00	63	1.86	75	.86	.53
Occupation of Father Now	Group 2	19	2.09	3	2.38	67	1.78	88	1.42	.21	8	2.19	5	1.38	63	2.17	75	2.10	.06
Occupation of Father Now	Group 3	19	2.73	3	2.50	68	2.56	89	.83	.55	8	2.04	5	2.82	63	2.48	75	1.23	.30
Occupation of Father Now	Group 4	19	1.89	3	2.17	68	1.89	89	.30	.94	8	2.24	5	2.00	63	1.77	75	.96	.46
Occupation of Father Now	Group 5	19	1.28	3	1.25	68	1.26	89	.08	1.00	8	1.37	5	1.50	61	1.28	75	2.42	.04[1]
Occupation of Father Now	Group 6	19	1.73	3	1.84	68	1.78	89	.34	.91	8	2.00	5	1.67	61	1.65	73	1.10	.37
Occupation of Father Now	Group 7	19	1.86	3	2.13	68	1.90	89	.60	.73	8	1.61	5	2.44	61	1.93	73	.88	.51
Occupation of Father Now	Group 8	19	2.14	3	2.20	68	2.43	89	1.51	.19	8	2.35	5	2.35	61	2.16	73	.41	.87
Occupation of Father Now	Group 9	19	1.83	3	1.92	68	1.99	89	.36	.90	8	1.80	5	2.27	61	1.92	73	1.29	.27
Occupation of Father Now	Group 10	19	1.53	3	2.17	68	1.72	89	2.29	.04[1]	8	1.68	5	2.38	61	1.82	73	1.42	.22
Occupation of Father Now	Group 11	19	1.23	3	1.38	68	1.39	89	.48	.82	8	1.37	5	1.47	61	1.42	73	.81	.57
Occupation of Father Now	Group 12	19	1.15	3	1.00	68	1.37	88	1.11	.36	8	1.18	5	1.10	63	1.25	75	.64	.70
Occupation of Father Now	Group 13	19	1.10	3	1.13	68	1.22	88	.71	.65	8	1.07	5	1.13	63	1.16	75	.17	.98
Occupation of Father Now	Group 14	19	1.51	3	1.20	68	1.55	88	1.27	.28	8	1.09	5	1.18	63	1.32	75	.75	.61
Occupation of Father Now	Group 15	19	1.19	3	1.13	68	1.25	88	.66	.68	8	1.04	5	1.00	63	1.05	75	.37	.89

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level

[4] Based on modified Elley-Irving Scale Prof/Clerical = Categories 1,2,3
Skilled = Categories 4,5,6
Ret/Home = Retired, Dead, Home

Table 14 continued over page

Table 14 - : continuation of Scales by Occupation[4] of Father Now : Female, Male

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	Prof/ Cler	*n*	Skilled	*n*	Ret/ Home				*n*	Prof/ Cler	*n*	Skilled	*n*	Ret/ Home			
Occupation of Father Now	Group 16	19	1.59	3	1.32	68	1.61	88	1.17	.33	8	1.11	5	1.25	63	1.37	75	.88	.52
Occupation of Father Now	Group 17	19	1.50	3	1.45	68	1.85	89	1.99	.08	8	1.32	5	1.25	63	1.53	75	.52	.79
Occupation of Father Now	Group 18	19	1.74	3	1.38	68	1.83	89	1.09	.37	8	1.36	5	1.69	63	1.46	75	.95	.46
Occupation of Father Now	Group 19	19	1.21	3	1.25	68	1.24	89	.83	.55	8	1.13	5	1.17	63	1.18	75	.38	.89
Occupation of Father Now	Group 20	19	1.71	3	1.17	68	1.82	89	1.78	.11	8	1.29	5	1.88	63	1.55	75	.56	.76
Occupation of Father Now	Group 21	19	1.27	3	1.00	68	1.28	89	.71	.65	8	1.57	5	1.19	63	1.22	75	.88	.52
Occupation of Father Now	Group 22	19	1.88	3	2.28	68	2.03	89	.64	.70	8	1.64	5	1.66	63	1.95	75	.46	.84
Occupation of Father Now	Group 23	19	1.50	3	1.75	68	1.61	89	.58	.74	8	1.50	5	1.57	63	1.71	75	1.52	.18
Occupation of Father Now	Group 24	19	1.52	3	1.5	68	1.44	89	.48	.82	8	1.58	5	1.85	63	1.43	75	1.28	.28
Occupation of Father Now	Group 25	19	1.85	3	2.07	68	1.88	89	.44	.85	8	1.95	5	2.07	63	1.89	75	.41	.87
Occupation of Father Now	Group 26	19	1.48	3	1.88	68	1.41	89	.63	.71	8	1.74	5	2.32	63	1.42	75	2.80	.02[1]
Occupation of Father Now	Group 27	19	1.17	3	1.00	68	1.22	89	.57	.75	8	1.04	5	1.25	63	1.22	75	.28	.59
Occupation of Father Now	Group 28	19	1.33	3	1.42	68	1.40	89	.63	.70	8	1.17	5	1.04	63	1.27	75	.61	.72
Occupation of Father Now	Group 29	19	1.53	3	1.92	68	1.73	89	.61	.72	8	1.68	5	1.88	63	1.65	75	1.29	.27

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[4] Based on modified Elley-Irving Scale Prof/Clerical = Categories 1,2,3
Skilled = Categories 4,5,6
Ret/Home = Retired, Dead, Home

Satisfied With Education

Whether or not respondents are satisfied with education as a subject is an important independent variable in this research which concerns extramural education students.

The questionnaire asked for a five point Likert response for this question. These were: Extremely Satisfied, Very Satisfied, Satisfied, Somewhat Satisfied and Not Satisfied. These have been compressed in Table 15 (Analysis of Variance by Satisfaction with Education) to three points. The first point combines Extremely Satisfied and Very Satisfied, the second point is Satisfied and the third point combines Somewhat Satisfied and Not satisfied. The Scheffe range refers to the original five points used in the questionnaire.

An analysis of difference and *f* probabilities for Table 15 (Analysis of Variance by Satisfaction with Education) shows that there is only one significant difference. It is indicated for males in Group 10 (same job needs). The Scheffe test reveals that there is no significant difference at the .05 level.

In summary, there were no strong differences for females. The Scheffe test on the one strong indication (same job needs) for males showed no large differences between any Group and satisfaction with education. However the means indicate that for males who are not satisfied, the main motivation to enrol was to show achievement and promotion within a job.

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Table 15 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Satisfied with Education : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	V.Satis	*n*	Satis	*n*	Not Sat				*n*	V.Satis	*n*	Satis	*n*	Not Sat.			
Satisfied with Education	Group 1	61	1.83	26	1.82	5	1.65	91	.29	.84	38	2.03	26	1.74	12	1.75	75	1.90	.11
Satisfied with Education	Group 2	60	1.91	26	1.75	5	1.90	90	.20	.90	38	2.14	26	2.12	12	1.50	75	.70	.60
Satisfied with Education	Group 3	61	2.67	26	2.54	5	2.30	91	.75	.53	38	2.66	26	2.40	12	2.09	75	1.48	.22
Satisfied with Education	Group 4	61	1.82	26	2.00	5	2.00	91	.49	.69	38	1.79	26	1.77	12	2.02	75	.34	.85
Satisfied with Education	Group 5	61	1.24	26	1.43	5	1.13	91	2.12	.10	38	1.37	26	1.27	12	1.20	75	.43	.78
Satisfied with Education	Group 6	61	1.87	26	1.77	5	1.73	91	1.31	.28	36	1.39	26	1.56	12	1.37	73	1.28	.29
Satisfied with Education	Group 7	61	1.88	26	1.92	5	1.80	91	.06	.98	36	1.98	26	1.83	12	1.53	73	.75	.56
Satisfied with Education	Group 8	61	2.40	26	2.23	5	2.24	91	1.44	.24	36	2.36	26	2.06	12	1.89	73	2.39	.06
Satisfied with Education	Group 9	61	1.95	26	1.97	5	1.80	91	.16	.93	36	2.02	26	1.80	12	2.09	73	.66	.62
Satisfied with Education	Group 10	61	1.56	26	1.87	5	1.87	91	1.55	.21	36	1.79	26	1.62	12	2.56	73	3.49	.01[1]
Satisfied with Education	Group 11	61	1.44	26	1.20	5	1.40	91	1.78	.16	36	1.45	26	1.36	12	1.73	73	.68	.61
Satisfied with Education	Group 12	60	1.41	26	1.24	5	1.08	90	1.14	.34	38	1.30	26	1.30	12	1.01	75	1.74	.15
Satisfied with Education	Group 13	60	1.25	26	1.16	5	1.05	90	.57	.64	38	1.17	26	1.15	12	1.03	75	.55	.70
Satisfied with Education	Group 14	60	1.55	26	1.38	5	1.48	90	1.03	.38	38	1.30	26	1.32	12	1.10	75	.19	.94
Satisfied with Education	Group 15	60	1.21	26	1.17	5	1.30	90	.67	.58	38	1.06	26	1.02	12	1.00	75	.84	.51

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows Very Satisfied Group being significantly different from the Satisfied Group at the 0.05 level
[3] Table groups compressed from original as follows :
V. Satisfied = Extremely Satisfied and Very Satisfied
Satisfied = Satisfied
Not Satisfied = Somewhat Satisfied and Not Satisfied

Table 15 continued over page

Table 15 - : continuation of Scales by Satisfied with Education : Females, Males

Independent Variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	V.Satis	*n*	Satis	*n*	Not Sat.				*n*	V.Satis	*n*	Satis	*n*	Not Sat			
Satisfied with Education	Group 16	60	1.63	26	1.46	5	1.50	90	1.21	.31	38	1.33	26	1.38	12	1.17	75	.35	.84
Satisfied with Education	Group 17	61	1.79	26	1.68	5	1.80	91	.28	.84	38	1.58	26	1.48	12	1.17	75	1.12	.36
Satisfied with Education	Group 18	61	1.88	26	1.63	5	1.85	91	1.84	.15	38	1.51	26	1.45	12	1.23	75	.43	.79
Satisfied with Education	Group 19	61	1.29	26	1.23	5	1.20	91	1.07	.37	38	1.26	26	1.17	12	1.05	75	1.35	.26
Satisfied with Education	Group 20	61	1.86	26	1.69	5	1.60	91	.81	.49	38	1.65	26	1.50	12	1.23	75	.84	.50
Satisfied with Education	Group 21	61	1.24	26	1.33	5	1.10	91	.52	.67	38	1.35	26	1.15	12	1.18	75	1.30	.28
Satisfied with Education	Group 22	61	1.91	26	2.18	5	1.73	91	2.19	.10	38	1.79	26	2.07	12	1.60	75	1.32	.27
Satisfied with Education	Group 23	61	1.47	26	1.72	5	1.50	91	1.65	.18	38	1.63	26	1.83	12	1.48	75	.95	.44
Satisfied with Education	Group 24	61	1.42	26	1.56	5	1.45	91	.58	.63	38	1.32	26	1.55	12	1.31	75	1.90	.12
Satisfied with Education	Group 25	61	1.80	26	2.07	5	1.75	91	1.29	.28	38	1.75	26	2.07	12	1.84	75	1.11	.36
Satisfied with Education	Group 26	61	1.33	26	1.56	5	1.20	91	1.63	.19	38	1.55	26	1.52	12	1.23	75	.82	.51
Satisfied with Education	Group 27	61	1.22	26	1.10	5	1.10	91	.91	.44	38	1.22	26	1.23	12	1.09	75	.20	.93
Satisfied with Education	Group 28	61	1.37	26	1.39	5	1.13	91	.89	.45	38	1.19	26	1.33	12	1.15	75	1.00	.42
Satisfied with Education	Group 29	61	1.72	26	1.82	5	1.60	91	1.16	.33	38	1.67	26	1.59	12	1.53	75	.44	.78

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Table groups compressed from original as follows :
V. Satisfied = Extremely Satisfied and Very Satisfied
Satisfied = Satisfied
Not Satisfied = Somewhat Satisfied and Not Satisfied

Satisfied with Life

A respondent's satisfaction with life at present could have an important influence for the study, particularly in the areas of frustrations and positive benefits of extramural study and with respect to psychological type.

The questionnaire asked for a five point Likert response for this question.(Appendix 7) These have been compressed in Table 16 (Analysis of Variance by Satisfaction with Life) to three points. The first point combines Extremely Satisfied and Very Satisfied, the second point is Satisfied and the third point combines Somewhat Satisfied and Not satisfied. The Scheffe range refers to the original five points used in the questionnaire as outlined above.

Table 16 (Analysis of Variance by Satisfaction with Life) shows that significant differences exist in Group 28 (child-care) at the .05 level for females. The Scheffe test shows no significant difference between Groups at the .05 level.

The male sample shows significant differences in Groups 23 (study skill) and 25 (isolation) at the .05 level. The Scheffe test shows no significant difference between Groups. At the .01 level, Group 15 (support) is indicated for males. The Scheffe test shows the Very Satisfied Group being significantly different from the Somewhat Satisfied Group at the

.05 level. At the .000 level, Group 27 (others attitudes) is indicated. The Scheffe test reveals the Not Satisfied Group being significantly different from the Extremely Satisfied, Very Satisfied, Satisfied and Somewhat Satisfied Groups at the .05 level.

In summary, for females who are not satisfied with life the means showed that their main frustration was difficulty with child-care. For males who are not satisfied with life the means showed that their main frustrations were difficulties with study skills and being isolated. A main barrier for this Group of males was lack of support. Males who are not satisfied with life are much more frustrated by others' attitudes than the other Groups.

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Table 16 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Satisfied with Life : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	V.Satis	*n*	Satis	*n*	Not Sat				*n*	V.Satis	*n*	Satis	*n*	Not Sat			
Satisfied with Life	Group 1	45	1.79	38	1.78	9	1.82	91	.78	.54	36	1.87	27	1.87	13	1.78	75	.58	.68
Satisfied with Life	Group 2	44	1.85	38	1.75	9	1.97	90	.32	.87	36	2.20	27	1.93	13	1.73	75	1.57	.19
Satisfied with Life	Group 3	45	2.53	38	2.64	9	2.00	91	1.26	.29	36	2.38	27	2.46	13	2.36	75	.66	.62
Satisfied with Life	Group 4	45	1.81	38	1.84	9	1.96	91	1.45	.23	36	1.76	27	1.99	13	1.38	75	.95	.44
Satisfied with Life	Group 5	45	1.31	38	1.25	9	1.34	91	.25	.91	36	1.25	27	1.27	13	1.21	75	.80	.53
Satisfied with Life	Group 6	45	1.83	38	1.70	9	1.69	91	.32	.86	35	1.56	27	1.64	12	1.55	73	2.40	.06
Satisfied with Life	Group 7	45	1.99	38	1.82	9	1.53	91	1.50	.21	35	1.98	27	1.91	12	1.75	73	.92	.46
Satisfied with Life	Group 8	45	2.35	38	2.33	9	2.32	91	1.03	.39	35	2.27	27	2.16	12	2.20	73	1.74	.15
Satisfied with Life	Group 9	45	1.96	38	1.91	9	1.95	91	.45	.77	35	1.92	27	1.99	12	2.18	73	.70	.59
Satisfied with Life	Group 10	45	1.65	38	1.63	9	1.84	91	.40	.81	35	1.82	27	1.83	12	1.65	73	.31	.87
Satisfied with Life	Group 11	45	1.33	38	1.30	9	1.75	91	1.13	.35	35	1.45	27	1.39	12	1.67	73	.64	.64
Satisfied with Life	Group 12	45	1.33	37	1.35	9	1.24	90	.56	.69	36	1.19	27	1.29	13	1.16	75	.63	.64
Satisfied with Life	Group 13	45	1.20	37	1.17	9	1.16	90	.23	.88	36	1.13	27	1.19	13	1.12	75	.58	.68
Satisfied with Life	Group 14	45	1.62	37	1.51	9	1.52	90	.86	.49	36	1.31	27	1.33	13	1.39	75	.73	.57
Satisfied with Life	Group 15	45	1.20	37	1.26	9	1.25	90	1.58	.19	36	1.00	27	1.04	13	1.09	75	3.96	.01[2]

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows Very Satisfied Group being significantly different from Somewhat Satisfied Group at the 0.05 level
[3] Table groups compressed from original as follows :
V. Satisfied = Extremely Satisfied and Very Satisfied
Satisfied = Satisfied
Not Satisfied = Somewhat Satisfied and Not Satisfied

Table 16 continued over page

Table 16 - : continuation of Scales by Satisfied with Life : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	V.Satis	*n*	Satis	*n*	Not Sat				*n*	V.Satis	*n*	Satis	*n*	Not Sat			
Satisfied with Life	Group 16	45	1.64	37	1.59	9	1.60	90	.51	.73	36	1.36	27	1.32	13	1.72	75	1.43	.23
Satisfied with Life	Group 17	45	1.86	38	1.79	9	1.32	91	1.03	.39	36	1.48	27	1.48	13	1.68	75	.21	.93
Satisfied with Life	Group 18	45	1.77	38	1.83	9	1.60	91	.34	.85	36	1.47	27	1.43	13	1.53	75	.24	.91
Satisfied with Life	Group 19	45	1.24	38	1.17	9	1.17	91	1.05	.39	36	1.11	27	1.21	13	1.14	75	.97	.43
Satisfied with Life	Group 20	45	1.88	38	1.74	9	1.67	91	.55	.70	36	1.50	27	1.52	13	1.66	75	.22	.93
Satisfied with Life	Group 21	45	1.22	38	1.25	9	1.60	91	1.07	.38	36	1.31	27	1.24	13	1.11	75	.21	.93
Satisfied with Life	Group 22	45	1.91	38	2.00	9	2.60	91	1.77	.14	36	1.78	27	2.01	13	1.98	75	1.11	.36
Satisfied with Life	Group 23	45	1.60	38	1.57	9	1.65	91	.05	1.00	36	1.48	27	1.76	13	2.05	75	2.73	.04[1]
Satisfied with Life	Group 24	45	1.49	38	1.47	9	1.42	91	.18	.95	36	1.44	27	1.50	13	2.01	75	2.37	.06
Satisfied with Life	Group 25	45	1.90	38	1.80	9	2.10	91	.38	.82	36	1.71	27	2.09	13	2.40	75	2.63	.04[1]
Satisfied with Life	Group 26	45	1.28	38	1.55	9	1.66	91	2.17	.08	36	1.47	27	1.46	13	1.90	75	2.04	.10
Satisfied with Life	Group 27	45	1.16	38	1.14	9	1.16	91	.89	.47	36	1.18	27	1.07	13	2.21	75	7.66	.001[4]
Satisfied with Life	Group 28	45	1.32	38	1.34	9	2.00	91	2.62	.04[1]	36	1.19	27	1.27	13	1.24	75	2.21	.08
Satisfied with Life	Group 29	45	1.79	38	1.65	9	1.77	91	.56	.69	36	1.61	27	1.70	13	2.00	75	.63	.65

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[3] Scheffe Test shows Very Satisfied Group being significantly different from the Somewhat Satisfied Group at the 0.05 level
[4] Scheffe Test shows Not Satisfied Group being significantly different from Extremely Satisfied, Very Satisfied, Satisfied and Somewhat Satisfied Groups at the 0.05 level
[3] Table groups compressed from original as follows :
V. Satisfied = Extremely Satisfied and Very Satisfied
Satisfied = Satisfied
Not Satisfied = Somewhat Satisfied and Not Satisfied

Vocational Training

It was expected that the greater majority of respondents would have been trained as teachers. It was necessary to gauge the proportion and to assess the implications on motivational reasons for the decision to study along with its effect on any possible link between career choice and psychological type.

The occupations of the respondents have been compressed from the original eight categories of the modified Elley-Irving Socio-Economic scale into groups of three that best suit the distribution of the responses.(see Appendix 7) The eight categories which the Scheffe test reports on are High Professional, Low professional, Clerical/ Highly skilled, Skilled work, Semi-skilled work, Unskilled/ Repetitive work, retired, Dead, and Home.

Table 17 (Analysis of Variance by Vocational Training) shows analysis of variance *f* probabilities do not exist for females. They are present at the .05 level of significance for males in Groups 3 (need for achievement), 12 (no resources) and 27 (others' attitudes). The Scheffe test for Group 3 (need for achievement) shows that the High professional Group is significantly different from the Low professional and Skilled work Group at the .05 level.

In summary, for females there is no relationship between vocational training and the independent variables. For males in the High professional Group, the motivation to enrol to satisfy a need for achievement was much less strong than for the other groups.

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Table 17 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Vocational[3] Training : Females, Males

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	High Prof	*n*	Low Prof	*n*	Cler/ Skill				*n*	High Prof	*n*	Low Prof	*n*	Cler/ Skill			
Vocational Training	Group 1	10	1.70	69	1.84	3	2.08	81	.52	.67	7	1.46	61	1.89	3	1.27	70	1.30	.28
Vocational Training	Group 2	10	1.84	69	1.81	3	2.67	81	1.09	.36	7	1.25	61	2.13	3	2.17	70	.45	.72
Vocational Training	Group 3	10	2.70	69	2.59	3	3.00	81	.74	.53	7	1.88	61	2.49	3	3.00	70	3.56	.02[2]
Vocational Training	Group 4	10	1.90	69	1.91	3	2.00	81	.02	1.00	7	1.28	61	1.83	3	2.67	70	2.60	.06
Vocational Training	Group 5	10	1.17	69	1.29	3	1.00	81	.79	.51	7	1.09	61	1.34	3	1.56	70	.68	.56
Vocational Training	Group 6	10	1.92	69	1.72	3	1.78	81	.85	.47	7	1.53	59	1.68	3	1.56	68	.18	.91
Vocational Training	Group 7	10	1.69	69	1.93	3	2.17	81	.54	.66	7	1.25	59	2.01	3	2.00	68	1.78	.16
Vocational Training	Group 8	10	2.42	69	2.37	3	2.60	81	.52	.67	7	1.92	59	2.16	3	2.33	68	.64	.59
Vocational Training	Group 9	10	1.78	69	1.96	3	2.22	81	.51	.68	7	1.48	59	1.94	3	2.44	68	1.75	.17
Vocational Training	Group 10	10	1.34	69	1.76	3	1.78	81	1.40	.24	7	1.36	59	1.94	3	1.33	68	2.65	.06
Vocational Training	Group 11	10	1.16	69	1.36	3	1.25	81	.93	.43	7	1.42	59	1.40	3	1.92	68	1.59	.20
Vocational Training	Group 12	10	1.35	68	1.31	3	1.60	80	.39	.76	7	1.05	61	1.23	3	1.80	70	2.83	.05[1]
Vocational Training	Group 13	10	1.11	68	1.18	3	1.25	80	.38	.76	7	1.02	61	1.14	3	1.33	70	.64	.59
Vocational Training	Group 14	10	1.34	68	1.55	3	1.53	80	.47	.70	7	1.25	61	1.30	3	1.13	70	1.03	.39
Vocational Training	Group 15	10	1.23	68	1.18	3	1.67	80	2.11	.11	7	1.00	61	1.04	3	1.00	70	.28	.84

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows High Professional Group significantly different from Low Professional and Skilled-work Group at the 0.05 level
[3] Categories are modified Elley-Irving Socio-economic Scales - High Prof = Category 1
Low Prof = Category 2
Cler/Skill = Category 3, 4

Table 17 continues over page

Table 17 - : continuation of Scales by Vocational[3] Training : Female, Male

Independent variable	Scale Number	Female									Male								
		Mean						Total *n*	f Ratio	f Prob.	Mean						Total *n*	f Ratio	f Prob.
		n	High Prof	*n*	Low Prof.	*n*	Cler/ Skill				*n*	High Prof.	*n*	Low Prof	*n*	Cler/ Skill			
Vocational Training	Group 16	10	1.49	68	1.60	3	1.83	80	.71	.55	7	1.25	61	1.35	3	1.17	70	.97	.41
Vocational Training	Group 17	10	1.67	69	1.77	3	2.00	81	.32	.81	7	1.44	61	1.50	3	1.60	70	.51	.68
Vocational Training	Group 18	10	1.67	69	1.82	3	2.00	81	.48	.70	7	1.65	61	1.45	3	1.50	70	1.40	.25
Vocational Training	Group 19	10	1.13	69	1.25	3	1.22	81	.30	.82	7	1.09	61	1.17	3	1.44	70	1.16	.33
Vocational Training	Group 20	10	1.56	69	1.85	3	1.67	81	.94	.42	7	1.81	61	1.51	3	1.78	70	1.80	.16
Vocational Training	Group 21	10	1.24	69	1.26	3	1.50	81	.52	.67	7	1.42	61	1.21	3	1.33	70	.39	.76
Vocational Training	Group 22	10	1.82	69	2.05	3	1.96	81	.66	.58	7	1.68	61	1.95	3	1.67	70	.46	.71
Vocational Training	Group 23	10	1.47	69	1.58	3	1.33	81	.87	.46	7	1.90	61	1.68	3	1.67	70	.23	.87
Vocational Training	Group 24	10	1.52	69	1.44	3	1.42	81	.34	.80	7	1.50	61	1.41	3	1.50	70	1.18	.33
Vocational Training	Group 25	10	2.04	69	1.86	3	1.25	81	1.53	.21	7	1.57	61	1.90	3	1.50	70	.89	.45
Vocational Training	Group 26	10	1.47	69	1.42	3	2.00	81	1.02	.39	7	1.29	61	1.47	3	1.50	70	.37	.77
Vocational Training	Group 27	10	1.07	69	1.18	3	1.67	81	1.76	.16	7	1.34	61	1.16	3	1.00	70	2.95	.04[1]
Vocational Training	Group 28	10	1.43	69	1.41	3	1.56	81	.39	.76	7	1.11	61	1.27	3	1.22	70	.23	.88
Vocational Training	Group 29	10	1.80	69	1.70	3	1.56	81	1.04	.38	7	1.84	61	1.64	3	1.56	70	.20	.90

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[3] Categories are modified Elley-Irving Socio-economic Scales - High Prof = Category 1
Low Prof = Category 2
Cler/Skill = Category 3, 4

Myers-Briggs Temperament

It was an important question for this thesis whether the motivational reasons for the decision to study extramurally were affected by temperament type.

Four Temperament Types are identified by the MBTI. They are NF (Intuitive/Feeling), NT (Intuitive/Thinking), SF (Sensing/Feeling) and ST (Sensing/Thinking).

Table 18 (Analysis of Variance by Myers - Briggs Temperament) shows that significant differences exist for males in Group 28 (child-care) at the .01 level of significance. The Scheffe test reveals that the NF temperament is significantly different from the NT and SJ temperaments at the .05 level.

In summary, for females there was no apparent relationship between Myers-Briggs Temperament and the independent variables. The frustration of child-care difficulties for males with the NF temperament is more intense than for the other temperaments.

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Table 18 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Myers-Briggs Temperament[4] : Females, Males

Independent variable	Scale Number	Female											Male										
		Mean								Total *n*	f Ratio	f Prob.	Mean								Total *n*	f Ratio	f Prob.
		n	N-F	*n*	N-T	*n*	S-J	*n*	S-P				*n*	N-F	*n*	N-T	n	S-J	*n*	S-P			
Myers-Briggs Temperament	Group 1	25	1.90	23	1.75	30	1.83	5	1.60	82	.71	.55	10	2.03	21	1.90	30	1.83	7	1.89	67	.46	.71
Myers-Briggs Temperament	Group 2	25	1.92	22	1.55	30	1.88	5	1.70	81	1.08	.36	10	2.15	21	2.33	30	1.93	7	2.14	67	1.03	.38
Myers-Briggs Temperament	Group 3	25	2.74	23	2.37	30	2.72	5	2.50	82	2.58	.06	10	2.55	21	2.64	30	2.47	7	2.36	67	.56	.64
Myers-Briggs Temperament	Group 4	25	1.84	23	1.78	30	2.00	5	1.93	82	.61	.60	10	1.63	21	1.95	30	1.83	7	1.76	67	.52	.67
Myers-Briggs Temperament	Group 5	25	1.19	23	1.27	30	1.31	5	1.13	82	.47	.71	10	1.43	21	1.25	30	1.32	7	1.29	67	.35	.79
Myers-Briggs Temperament	Group 6	25	1.79	23	1.78	30	1.69	5	1.67	82	.27	.85	9	1.74	20	1.78	30	1.58	7	1.76	65	.71	.55
Myers-Briggs Temperament	Group 7	25	1.84	23	1.96	30	2.00	5	1.80	82	.36	.78	9	1.78	20	1.88	30	1.93	7	2.07	65	.28	.84
Myers-Briggs Temperament	Group 8	25	2.30	23	2.44	30	2.38	5	2.32	82	.46	.71	9	2.16	20	2.32	30	2.09	7	2.14	65	1.03	.39
Myers-Briggs Temperament	Group 9	25	2.05	23	1.96	30	1.94	5	1.83	82	.26	.86	9	1.70	20	1.96	30	2.00	7	1.90	65	.76	.52
Myers-Briggs Temperament	Group 10	25	1.79	23	1.64	30	1.71	5	1.33	82	.75	.52	9	1.63	20	1.95	30	1.78	7	2.00	65	.93	.43
Myers-Briggs Temperament	Group 11	25	1.32	23	1.37	30	1.36	5	1.45	82	.16	.92	9	1.42	20	1.45	30	1.38	7	1.32	65	.21	.89
Myers-Briggs Temperament	Group 12	25	1.28	22	1.27	30	1.39	5	1.20	81	.48	.70	10	1.22	21	1.29	30	1.25	7	1.17	67	.17	.92
Myers-Briggs Temperament	Group 13	25	1.16	22	1.22	30	1.17	5	1.20	81	.12	.95	10	1.08	21	1.17	30	1.11	7	1.07	67	.49	.69
Myers-Briggs Temperament	Group 14	25	1.59	22	1.37	30	1.62	5	1.44	81	1.04	.38	10	1.42	21	1.23	30	1.26	7	1.46	67	1.31	.28
Myers-Briggs Temperament	Group 15	25	1.20	22	1.09	30	1.30	5	1.40	81	1.68	.18	10	1.10	21	1.05	30	1.02	7	1.00	67	1.25	.30

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level

Myers-Briggs Temperament Types:
N-F = Intuitive-Feeling
N-T = Intuitive-Thinking
S-J = Sensing-Judging
S-P = Sensing-Perception

Table 18 continued over

Table 18 - : continuation of Scales by Myers-Briggs Temperament[4] : Females, Males

Independent variable	Scale Number	Female											Male										
		Mean								Total *n*	f Ratio	f Prob.	Mean								Total *n*	f Ratio	f Prob.
		n	N-F	*n*	N-T	*n*	S-J	*n*	S-P				*n*	N-F	*n*	N-T	*n*	S-J	*n*	S-P			
Myers-Briggs Temperament	Group 16	25	1.64	22	1.40	30	1.70	5	1.55	81	1.97	.13	10	1.40	21	1.27	30	1.34	7	1.46	67	.69	.56
Myers-Briggs Temperament	Group 17	25	1.74	23	1.70	30	1.85	5	1.64	82	.41	.75	10	1.58	21	1.49	30	1.44	7	1.37	67	.49	.69
Myers-Briggs Temperament	Group 18	25	1.86	23	1.72	30	1.78	5	1.45	82	1.36	.26	10	1.50	21	1.43	30	1.44	7	1.39	67	.13	.94
Myers-Briggs Temperament	Group 19	25	1.20	23	1.22	30	1.22	5	1.07	82	.33	.81	10	1.17	21	1.22	30	1.20	7	1.10	67	.39	.76
Myers-Briggs Temperament	Group 20	25	1.83	23	1.70	30	1.79	5	1.27	82	2.22	.09	10	1.57	21	1.41	30	1.61	7	1.38	67	1.00	.40
Myers-Briggs Temperament	Group 21	25	1.30	23	1.22	30	1.23	5	1.30	82	.22	.89	10	1.30	21	1.36	30	1.17	7	1.21	67	.88	.46
Myers-Briggs Temperament	Group 22	25	2.06	23	1.92	30	1.95	5	2.08	82	.41	.75	10	2.11	21	1.85	30	1.85	7	2.02	67	.72	.55
Myers-Briggs Temperament	Group 23	25	1.62	23	1.46	30	1.57	5	1.65	82	.53	.66	10	1.63	21	1.51	30	1.81	7	1.50	67	2.10	.11
Myers-Briggs Temperament	Group 24	25	1.46	23	1.37	30	1.46	5	1.40	82	.25	.86	10	1.55	21	1.37	30	1.38	7	1.50	67	.59	.62
Myers-Briggs Temperament	Group 25	25	1.97	23	1.75	30	1.86	5	2.00	82	.62	.61	10	1.90	21	1.92	30	1.82	7	2.00	67	.26	.85
Myers-Briggs Temperament	Group 26	25	1.36	23	1.30	30	1.58	5	1.40	82	1.41	.25	10	1.60	21	1.55	30	1.43	7	1.64	67	.50	.67
Myers-Briggs Temperament	Group 27	25	1.26	23	1.17	30	1.10	5	1.40	82	1.27	.29	10	1.30	21	1.17	30	1.18	7	1.07	67	.44	.73
Myers-Briggs Temperament	Group 28	25	1.28	23	1.31	30	1.41	5	1.20	82	.74	.53	10	1.57	21	1.21	30	1.14	7	1.24	67	4.86	.001[3]
Myers-Briggs Temperament	Group 29	25	1.57	23	1.64	30	1.84	5	1.47	82	2.00	.12	10	1.60	21	1.62	30	1.61	7	1.67	67	.03	1.00

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[3] Scheffe Test shows NF Group being significantly different from NT and SJ Group at the 0.05 level
[4] Myers-Briggs Temperament Types: N-F = Intuitive-Feeling
N-T = Intuitive-Thinking
S-J = Sensing-Judging
S-P = Sensing-Perception

Myers-Briggs Psychological Type

It was expected that significant differences would exist between particular psychological types, gender, and the motivational reasons causing respondents to study extramurally.

There are sixteen types that are used as the ranges for the Scheffe test. They are:

ESTJ - Extrovert/Sensing/Thinking/Judging

ENTJ - Extrovert/Intuition/Thinking/Judging

ISTP - Introvert/Sensing/Thinking/Perception

INTP - Introvert/Intuition/Thinking/Perception

ISFJ - Extrovert/Sensing/Feeling/Judging

ENFJ - Extrovert/Intuition/Feeling/Judging

ISFJ - Introvert/Sensing/Feeling/Judging

INFP - Introvert/Intuition/Feeling/Perception

ESTP - Extrovert/Sensing/Thinking/Perception

ESFP - Extrovert/Sensing/Feeling/Perception

ISTJ - Introvert/Sensing/Thinking/Judging

ENTP - Extrovert/Intuition/Thinking/Perception

ENFP - Extrovert/Intuition/Feeling/Perception

INTJ - Introvert/Intuition/Thinking/Judging

INFJ - Introvert/Intuition/Feeling/Judging

Table 19 (Analysis of Variance by Myers - Briggs Type - Female) shows analysis of variance *f* probabilities exist for females in Group 12 (no resources) at the .05 level of significance. At the .01 level of significance Group 7 (need degree) is indicated. The Scheffe test for both these Groups shows that no two Groups are significantly different at the .05 level.

For males, Table 20 (Analysis of Variance by Myers - Briggs Type - Male) a significant difference at the .05 level is found in Group 28 (child-care). The Scheffe test shows no significant difference at the .05 level. At the .000 level, Group 13 (self-image needs) is indicated. The Scheffe test shows that the ESTJ type is significantly different from the ISTJ type at the .05 level.

In summary, for females the Scheffe test showed no notable differences between types and independent variables. However, the means showed that for the ENFJ female, an important barrier to an early enrolment was lack of resources. The means show that the ESTP female is strongly motivated by the need for a degree. For males however, the means showed that the ENFP male is strongly frustrated by child-care difficulties. For males a strong difference in the barrier of self- image needs is linked to the types ISFJ and ESTJ. The ISFJ male has a greater frustration with self-image needs, in comparison to the ESTJ male who does not see this as a barrier.

(Facing page 118)

Table 19 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Myers-Briggs Type : Females

Independent Variable	Scale Number	ESTJ *n*=8	ENTJ *n*=6	ISTP *n*=3	INTP *n*=4	ESFJ *n*=3	ENFJ *n*=6	ISFP *n*=2	INFP *n*=5	ESTP *n*=1	ESFP *n*=0	ISTJ *n*=13	ISFJ *n*=6	ENTP *n*=2	ENFP *n*=6	INTJ *n*=11	INFJ *n*=7	Total *n*	f Ratio	f Prob.
Myers-Briggs Type	Group 1	1.69	2.04	1.92	1.63	2.17	1.79	1.38	2.15	1.25	0	1.77	2.00	1.38	1.92	1.70	1.79	82	.90	.56
Myers-Briggs Type	Group 2	2.13	1.70	2.17	2.13	1.83	1.50	2.00	2.00	1.00	0	1.54	2.00	1.50	2.00	1.27	2.29	81	1.09	.38
Myers-Briggs Type	Group 3	2.63	2.50	3.00	2.38	2.67	2.58	2.50	2.90	1.50	0	2.73	2.83	2.00	2.50	2.36	2.93	82	1.31	.23
Myers-Briggs Type	Group 4	1.79	2.11	2.56	1.92	2.22	1.67	1.33	2.00	1.67	0	1.92	2.17	1.50	1.89	1.61	1.90	82	.88	.58
Myers-Briggs Type	Group 5	1.13	1.39	1.78	1.38	1.11	1.11	1.00	1.00	1.33	0	1.36	1.22	1.00	1.33	1.21	1.29	82	.71	.75
Myers-Briggs Type	Group 6	1.67	2.11	2.00	1.83	2.00	1.83	1.83	1.87	1.33	0	1.56	1.61	2.17	1.72	1.52	1.81	82	.89	.57
Myers-Briggs Type	Group 7	1.44	2.33	2.17	2.25	2.00	1.83	1.00	1.50	2.50	0	2.46	1.83	1.50	1.92	1.73	1.93	82	2.45	.01[1]
Myers-Briggs Type	Group 8	2.20	2.50	2.47	2.30	2.33	2.30	2.00	2.36	2.60	0	2.49	2.30	2.30	2.37	2.49	2.29	82	.44	.96
Myers-Briggs Type	Group 9	1.58	2.11	2.22	1.96	2.17	1.78	1.75	2.27	1.17	0	1.95	2.22	1.83	2.08	1.89	2.17	82	.72	.75
Myers-Briggs Type	Group 10	1.38	1.72	2.00	2.33	1.56	1.94	1.17	1.73	1.00	0	1.97	1.56	1.17	1.61	1.42	1.81	82	1.23	.28
Myers-Briggs Type	Group 11	1.28	1.67	1.50	1.31	1.58	1.29	1.50	1.25	1.00	0	1.37	1.54	1.38	1.46	1.23	1.11	82	.86	.60
Myers-Briggs Type	Group 12	1.27	1.23	1.07	1.05	2.27	1.63	1.50	1.28	1.00	0	1.42	1.23	1.00	1.10	1.44	1.00	81	2.17	.02[1]
Myers-Briggs Type	Group 13	1.28	1.21	1.17	1.06	1.25	1.17	1.25	1.25	1.00	0	1.10	1.25	1.25	1.13	1.28	1.04	81	.32	.99
Myers-Briggs Type	Group 14	1.73	1.50	1.73	1.25	1.53	1.67	1.40	1.72	1.00	0	1.68	1.30	1.40	1.93	1.34	1.20	81	.98	.49
Myers-Briggs Type	Group 15	1.19	1.25	1.17	1.00	1.67	1.25	1.75	1.40	1.00	0	1.38	1.25	1.00	1.08	1.05	1.00	81	1.44	.16

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level

Table 19 continued over page

Table 19 - : continuation of Scales by Myers-Briggs Type : Females

Independent variable	Scale Number	ESTJ n=8	ENTJ n=6	ISTP n=3	INTP n=4	ESFJ n=3	ENFJ n=6	ISFP n=2	INFP n=5	ESTP n=1	ESFP n=0	ISTJ n=13	ISFJ n=6	ENTP n=2	ENFP n=6	INTJ n=11	INFJ n=7	Total n	f Ratio	f Prob.
Myers-Briggs Type	Group 16	1.63	1.50	1.83	1.19	2.08	1.71	1.63	1.85	1.00	0	1.81	1.33	1.50	1.75	1.40	1.32	81	1.60	.10
Myers-Briggs Type	Group 17	1.73	1.60	2.53	1.35	2.27	1.87	1.30	1.96	1.00	0	1.82	1.73	1.70	1.73	1.87	1.42	82	1.18	.31
Myers-Briggs Type	Group 18	1.69	1.46	1.42	1.56	2.17	1.79	1.50	2.00	1.00	0	1.88	1.63	2.13	1.88	1.84	1.82	82	1.29	.24
Myers-Briggs Type	Group 19	1.21	1.17	1.33	1.33	1.33	1.22	1.17	1.27	1.00	0	1.15	1.22	1.33	1.00	1.18	1.29	82	.36	.98
Myers-Briggs Type	Group 20	1.67	1.67	1.33	1.58	2.50	1.72	1.50	2.20	1.00	0	1.95	1.56	1.83	1.72	1.73	1.71	82	1.11	.37
Myers-Briggs Type	Group 21	1.13	1.25	1.67	1.50	1.50	1.08	1.25	1.40	1.00	0	1.27	1.17	1.50	1.42	1.05	1.21	82	.99	.47
Myers-Briggs Type	Group 22	1.77	1.73	2.50	2.53	2.13	1.92	1.94	2.28	2.00	0	1.91	2.06	1.69	2.15	1.85	1.95	82	1.19	.30
Myers-Briggs Type	Group 23	1.47	1.63	2.00	1.73	1.75	1.50	1.63	1.70	1.25	0	1.50	1.58	1.25	1.79	1.32	1.57	82	.74	.72
Myers-Briggs Type	Group 24	1.50	1.38	1.58	1.50	1.33	1.33	1.00	1.50	2.00	0	1.46	1.33	1.00	1.67	1.39	1.43	82	.67	.80
Myers-Briggs Type	Group 25	1.75	1.79	2.42	2.00	2.17	1.96	1.38	1.65	3.00	0	1.77	1.96	1.13	2.33	1.75	1.82	82	1.30	.23
Myers-Briggs Type	Group 26	1.50	1.33	1.50	1.63	1.50	1.50	1.75	1.20	1.00	0	1.65	1.58	1.00	1.33	1.23	1.29	82	.65	.81
Myers-Briggs Type	Group 27	1.13	1.42	1.50	1.00	1.17	1.08	1.25	1.20	1.00	0	1.15	1.00	1.00	1.42	1.14	1.29	82	.69	.78
Myers-Briggs Type	Group 28	1.46	1.22	1.44	1.79	1.33	1.28	1.17	1.20	1.00	0	1.36	1.44	1.17	1.44	1.21	1.19	82	.82	.64
Myers-Briggs Type	Group 29	1.96	1.56	2.00	2.17	1.78	1.78	1.17	1.53	1.33	0	1.82	1.61	1.00	1.61	1.61	1.43	82	1.50	.14

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level

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Table 20 - : Analysis of Variance - *f* Ratios and *f* Probabilities for 29 Motivation Scales by Myers-Briggs Type : Males

Independent Variable	Scale Number	ESTJ *n*=6	ENTJ *n*=8	ISTP *n*=6	INTP *n*=4	ESFJ *n*=2	ENFJ *n*=0	ISFP *n*=0	INFP *n*=6	ESTP *n*=1	ESFP *n*=1	ISTJ *n*=18	ISFJ *n*=3	ENTP *n*=4	ENFP *n*=1	INTJ *n*=5	INFJ *n*=3	Total *n*	f Ratio	f Prob.
Myers-Briggs Type	Group 1	1.88	2.03	1.88	1.63	2.13	0	0	2.13	1.75	2.00	1.76	1.92	2.13	1.50	1.75	2.00	67	.54	.89
Myers-Briggs Type	Group 2	2.12	2.63	2.00	1.75	1.25	0	0	2.08	2.50	3.00	1.89	1.50	2.25	2.00	2.40	2.33	67	.99	.47
Myers-Briggs Type	Group 3	2.17	2.56	2.33	2.88	3.00	0	0	2.58	2.00	2.50	2.53	2.50	2.38	2.00	2.80	2.33	67	.63	.82
Myers-Briggs Type	Group 4	2.06	2.88	1.72	1.92	1.17	0	0	1.61	1.67	2.00	1.70	2.67	2.67	1.33	1.53	1.78	67	1.36	.21
Myers-Briggs Type	Group 5	1.39	1.17	1.33	1.42	1.17	0	0	1.39	1.33	1.00	1.26	1.67	1.33	1.67	1.20	1.44	67	.35	.98
Myers-Briggs Type	Group 6	1.44	1.79	1.67	1.83	1.67	0	0	1.53	1.00	2.33	1.63	1.67	2.00	1.00	1.50	1.33	65	1.07	.41
Myers-Briggs Type	Group 7	2.00	1.69	2.08	1.88	2.75	0	0	1.80	1.50	2.00	1.77	2.33	1.88	1.00	2.25	2.00	65	.73	.73
Myers-Briggs Type	Group 8	2.03	2.38	2.10	2.30	2.30	0	0	2.16	1.20	2.40	2.11	2.20	2.55	1.60	2.00	2.33	65	.97	.50
Myers-Briggs Type	Group 9	1.89	2.08	1.89	1.79	2.50	0	0	1.73	1.50	2.00	1.94	2.44	1.79	1.17	2.04	1.83	65	.74	.71
Myers-Briggs Type	Group 10	1.83	1.96	2.11	2.08	1.50	0	0	1.40	2.33	1.33	1.72	2.00	1.33	2.00	2.42	1.89	65	1.27	.26
Myers-Briggs Type	Group 11	1.21	1.56	1.29	1.25	1.38	0	0	1.30	2.00	1.50	1.35	1.67	1.50	2.00	1.38	1.42	65	.71	.74
Myers-Briggs Type	Group 12	1.17	1.50	1.20	1.10	1.40	0	0	1.37	1.00	1.00	1.23	1.53	1.20	1.00	1.16	1.00	67	.70	.76
Myers-Briggs Type	Group 13	1.00	1.28	1.08	1.13	1.50	0	0	1.08	1.00	1.00	1.03	1.67	1.06	1.00	1.10	1.08	67	3.60	.000[2]
Myers-Briggs Type	Group 14	1.23	1.35	1.46	1.15	1.30	0	0	1.47	1.00	1.40	1.27	1.33	1.25	1.60	1.08	1.27	67	.54	.89
Myers-Briggs Type	Group 15	1.00	1.06	1.00	1.00	1.00	0	0	1.17	1.00	1.00	1.03	1.00	1.00	1.00	1.10	1.00	67	.71	.74

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level
[2] Scheffe Test shows ESTJ Group being significantly different from ISFJ Group at the 0.05 level

Table 20 continued over page

Table 20 - : continuation of Scales by Myers-Briggs Type : Males

Independent Variable	Scale Number	ESTJ n=6	ENTJ n=8	ISTP n=6	INTP n=4	ESFJ n=2	ENFJ n=0	ISFP n=0	INFP n=6	ESTP n=1	ESFP n=1	ISTJ n=18	ISFJ n=3	ENTP n=4	ENFP n=1	INTJ n=5	INFJ n=3	Total n	f Ratio	f Prob.
Myers-Briggs Type	Group 16	1.38	1.44	1.46	1.13	1.38	0	0	1.42	1.00	1.50	1.32	1.50	1.25	2.00	1.15	1.17	67	.92	.54
Myers-Briggs Type	Group 17	1.43	1.60	1.40	1.20	2.00	0	0	1.80	1.00	1.20	1.38	1.60	1.50	1.00	1.52	1.33	67	1.40	.19
Myers-Briggs Type	Group 18	1.29	1.34	1.42	1.31	1.50	0	0	1.38	1.50	1.25	1.49	1.42	1.50	1.50	1.60	1.75	67	.44	.95
Myers-Briggs Type	Group 19	1.17	1.33	1.11	1.25	1.00	0	0	1.17	1.00	1.00	1.20	1.44	1.67	1.00	1.07	1.22	67	.63	.82
Myers-Briggs Type	Group 20	1.39	1.46	1.33	1.42	2.17	0	0	1.56	1.67	1.67	1.59	1.78	1.17	2.00	1.53	1.44	67	.79	.67
Myers-Briggs Type	Group 21	1.17	1.38	1.25	1.25	1.25	0	0	1.25	1.00	1.00	1.19	1.00	1.88	1.00	1.00	1.50	67	1.15	.34
Myers-Briggs Type	Group 22	2.19	2.03	2.06	1.78	1.75	0	0	2.13	1.63	1.75	1.72	2.13	1.47	2.75	1.93	1.88	67	.86	.59
Myers-Briggs Type	Group 23	1.92	1.47	1.54	1.56	1.63	0	0	1.83	1.50	1.25	1.79	1.92	1.50	1.00	1.55	1.42	67	.85	.61
Myers-Briggs Type	Group 24	1.42	1.25	1.54	1.38	1.50	0	0	1.42	1.00	1.25	1.38	1.42	1.50	1.75	1.45	1.75	67	.42	.95
Myers-Briggs Type	Group 25	1.96	1.69	2.04	2.13	1.75	0	0	2.17	1.25	1.75	1.82	1.75	1.75	1.50	2.25	1.50	67	.73	.72
Myers-Briggs Type	Group 26	1.33	1.50	1.67	1.50	1.25	0	0	1.58	1.00	1.50	1.42	2.00	1.75	2.50	1.50	1.33	67	.81	.64
Myers-Briggs Type	Group 27	1.17	1.31	1.08	1.00	1.00	0	0	1.33	1.00	1.00	1.25	1.00	1.13	1.00	1.10	1.33	67	.37	.97
Myers-Briggs Type	Group 28	1.28	1.29	1.28	1.25	1.17	0	0	1.56	1.33	1.00	1.09	1.11	1.17	2.33	1.07	1.33	67	2.20	.02[1]
Myers-Briggs Type	Group 29	1.78	1.38	1.72	2.00	1.83	0	0	1.61	1.00	1.33	1.63	1.22	1.83	1.33	1.53	1.67	67	.83	.62

[1] Scheffe Test shows no two groups are significantly different at the 0.05 level

Pearson Correlation Coefficients

Continuous scores of the MBTI were necessary for the present study in order for them to be analysed for correlations between the motivational reasons for studying extramurally and the eight continuous MBTI scales.

In the present study, correlation coefficients were calculated to measure the relationship between the two variables - Myers-Briggs continuous scores and the 29 Motivation Scales. The eight continuous scales are extrovert, introvert, sensing, intuitive, thinking, feeling, judging and perceptive.

For females, Table 21 (Pearson Correlation Coefficient by Myers-Briggs Continuous Scales - Female) indicates that Group 2 (help my children) correlates at the .05 level with Extrovert and Perceptive. Group 3 (need for achievement) correlates at the .01 level with Sensing. Group 7 (need degree) correlates at the .01 level with Thinking. Group 13 (self-image needs) correlates negatively at the .05 level with Introvert. Group 14 (over-loaded) correlates at the .001 level, positively with Extrovert and negatively with Introvert. Group 16 (other roles) shows a correlation at the .01 level positively for Extrovert and negatively for Introvert. Group 17 (new life-role) correlates at the .05 level with Thinking and Judging. Group 18 (use time) correlates negatively with Sensing at the .05 level. Group 21 (specific course) correlates negatively at the .05 level with Judging and positively at the .01 level with Perceptive. Group 22 (home

demands) shows a positive correlation at the .05 level with feeling and a negative correlation with Judging. At the .01 level, Group 22 shows a positive correlation with Perceptive. Group 23 (study skill) shows a correlation with Feeling at the .05 level. Group 26 (time/money) correlates negatively at the .05 level with Intuitive. Group 29 (timing) correlates at the .001 level with Sensing and Thinking and at the .05 level with Judging.

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Table 21 - : Pearson Correlations Coefficients for Myers Briggs and Motivation Scales: The Predisposing Factors, Barriers to Prior Enrolment and enabling factors

Motivation Scales	Continuous MBTI scores for Females : n = 83							
	Extrovert	Introvert	Sensing	Intuitive	Thinking	Feeling	Judging	Perceptive
Group 1	.07	-.05	-.08	.07	-.15	.10	-.08	.07
Group 2	.20*	-.11	.04	.02	-.11	.06	-.10	.21*
Group 3	.09	-.02	.24**	-.14	-.00	.15	.06	.03
Group 4	.09	-.07	.09	-.11	.03	-.02	-.14	.17
Group 5	-.08	.12	.09	-.04	.09	-.01	.09	-.06
Group 6	.14	-.09	-.10	.12	-.17	.07	-.08	.09
Group 7	-.08	.15	.03	-.02	.25**	-.08	.12	-.04
Group 8	-.13	.14	-.15	.07	.15	-.11	.09	-.08
Group 9	-.07	.13	-.02	.08	-.04	.13	-.08	.10
Group 10	-.11	.02	-.01	-.01	.06	-.05	-.05	.05
Group 11	.05	-.14	-.05	.01	-.08	-.04	.01	-.01
Group 12	.09	-.14	.05	-.09	.09	-.00	.17	-.14
Group 13	.16	-.18*	.00	-.00	.03	-.04	.05	.00
Group 14	.35***	-.33***	-.02	.08	.13	-.06	.01	.06
Group 15	.02	-.07	.13	-.17	-.05	-.07	.09	-.10
Group 16	.31**	-.28**	.05	.04	.04	.03	.02	.07
Group 17	.07	-.08	.06	-.02	.18*	-.08	.19*	-.11
Group 18	-.04	.05	-.19*	.11	.05	-.00	.16	-.08
Group 19	.03	.00	.03	-.00	-.10	.05	.02	-.03
Group 20	-.04	.10	-.14	.12	.08	.01	.15	-.05
Group 21	.07	-.02	-.07	.14	-.05	.09	-.22*	.26**
Group 22	.01	.04	.04	.09	-.14	.22*	-.22*	.28**
Group 23	.08	-.01	.06	.07	-.17	.23*	-.06	.12
Group 24	.10	-.04	.11	-.07	.07	.04	.06	.00
Group 25	.15	-.15	.01	.09	-.18	.26**	.07	.07
Group 26	-.05	-.06	.11	-.23*	.00	-.09	.11	-.12
Group 27	.10	-.08	-.08	.04	.08	-.09	-.08	.06
Group 28	.10	-.08	.09	-.03	.05	-.00	.00	.05
Group 29	.05	-.06	.24**	-.16	.24**	-.10	.23*	-.15

* = p <.05
** = p <.01
*** = p <.001

Table 22 (Pearson Correlation Coefficient by Myers-Briggs Continuous Scales - Male) displays for males the correlation coefficients between the continuous MBTI scores and the 29 motivation scales. Group 1 (need more status) correlates negatively at the .05 level with Thinking, Feeling and Judging. Group 1 also correlates positively at the .05 level with Perceptive. At the .01 level a negative correlation is found with Sensing and a positive correlation is found with Intuitive. Group 2 (help my children) correlates negatively with Introvert and Sensing at the .05 level. Group 3 (need for achievement) correlates negatively at the .05 level with Thinking. Group 5 (influences of others) correlates negatively at the .05 level with thinking. Group 6 (understand people) correlates negatively with Sensing at the .05 level. Group 8 (personal challenge) correlates at the .05 level negatively with Sensing and positively with Intuitive. There is a positive correlation at the .05 level between Extrovert and Group 11 (new job needs). Group 13 (self-image needs) shows a positive at the .05 level with Intuitive. Group 14 (over-loaded) shows positive correlation with Intuitive and Perceptive and a negative correlation with Thinking at the .05 level. At the .01 level, there is a positive correlation with Group 14 (over-loaded) and Feeling. Group 15 (support) shows a negative correlation at the .05 level with Thinking and Judging, and also with Sensing at the .01 level. Group 17 (new-life role) shows a negative correlation with Thinking and a positive correlation with Intuitive and Feeling at the .05 level. Group 21 (specific course) shows a negative correlation with Sensing at the .05 level. Group 22

(home demands) shows a correlation at the .05 level with Extrovert and Perceptive. Group 25 (isolation) shows a positive correlation at the .05 level with Extrovert and Perceptive and a negative correlation at the .05 level with Judging. A positive correlation with Perceptive is found with Group 26 (time/money) and negative correlations with Sensing and Judging at the same level. Group 27 (others attitudes) shows a negative correlation with Sensing and a positive correlation with Intuitive at the .05 level. In Group 28 (child-care) all of the continuous scores show correlation except for Introvert. At the .05 level Extrovert and Intuitive are positive and Sensing, Thinking and Judging are negative. Feeling and Perceptive show a strong correlation with Group 28 (child-care) at the .01 level. Group 29 (timing) shows a positive correlation at the .05 level with Thinking.

To summarise the MBTI scales, the correlations are listed by gender and independent variables. There can be no doubt that motives are consistently affected by MBTI factors.

Extrovert

Female	Male
Are positive towards the motive help my children and to the barriers of parenting demands and other roles.	Are positive towards the motive of a degree for a better job

Introvert

Are negative towards the barriers of self-image needs, parenting demands and other roles.	Are negative towards the motive of helping their children.

Sensing

Female	Male
Are positive towards the motive of need for achievement and negative to the enabling event of something to do in their spare time.	Are negative to the motives of needing more status, helping their children, understanding people and the personal challenge. Are also negative to the barrier of other roles and negative to the enabling event of a specific course becoming available. Are negative to the frustrations of lack of time and money, others' attitudes and child-care difficulties.

Intuitive

Are negative to the barrier of lack of time and money.	Are positive to the motivation of needing more status and to personal challenge. Are positive towards the barriers of self-image needs and parenting demands. Are also positive to the enabling event of a specific course becoming available. Are positive towards the frustration of child-care difficulties.

Thinking

Are positive towards the motivation of needing a degree and to the enabling event of a new life role. Are positive towards the frustration of child-care difficulties.	Are negative towards the motives of needing more status, the need for achievement and the influence of others. Are negative to the barriers of parenting demands and no support. Are negative to the enabling event of new life role and to the frustrations of child-care difficulties and late return of assignments.

Feeling

Female	Male
Are positive towards the frustrations of home demands, study skill difficulties and isolation.	Are negative to the motive of the need for more status. Are positive to the barrier of parenting demands. Are positive to the enabling event of a new life role. Are positive to the frustration of child-care difficulties.

Judging

Are positive to the enabling event of a new life role and negative to a specific course becoming available. Are negative to the frustrations of home demands and the late return of assignments.	Are negative to the motivation of needing more status. Are negative towards the barrier of no support. Are negative to the frustrations of isolation, lack of time and money and child-care difficulties.

Perceptive

Are positive to the motive of helping their children. Are positive to the enabling event of a specific course becoming available and to the frustrations of home demands.	Are positive to the motivation of needing more status and towards the barrier of parenting demands. Are positive to the frustrations of home demands, isolation, other's attitudes and child-care difficulties.

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Table 22 - : Pearson Correlations Coefficients for Myers Briggs and Motivation Scales: The Predisposing Factors, Barriers to Prior Enrolment and enabling factors

Motivation Scales	Continuous MBTI scores for Males : n = 68							
	Extrovert	Introvert	Sensing	Intuitive	Thinking	Feeling	Judging	Perceptive
Group 1	.20	-.16	-.28**	.30**	-.23*	-.21*	-.21*	.24*
Group 2	.16	-.22*	-.21*	.13	.00	.02	.03	-.02
Group 3	-.06	.11	-.17	.17	-.20*	.19	.02	-.02
Group 4	.10	-.04	-.03	.10	-.11	.14	-.13	.11
Group 5	.01	.03	.04	-.04	-.22*	.19	-.05	.04
Group 6	.04	-.03	-.21*	.19	-.16	.18	.01	-.04
Group 7	.00	.12	.06	.05	-.19	.17	.12	-.10
Group 8	.02	.04	-.27*	.24*	-.10	.05	.01	-.12
Group 9	.06	.06	.00	.06	-.14	.13	.16	-.14
Group 10	.05	.04	-.00	.01	.09	-.09	.07	-.05
Group 11	.26*	-.20	-.08	.13	-.14	19	-.05	.06
Group 12	.07	.02	.01	.00	.11	.01	.16	.01
Group 13	.14	.02	-.07	.20*	-.16	.16	-.06	.09
Group 14	.14	-.05	-.15	.22*	-.20*	.29**	-.19	.26*
Group 15	-.09	-.11	-.29**	.07	-.21*	.13	-.23*	.12
Group 16	.15	-.05	-.10	.08	-.19	.19	-.09	.12
Group 17	.02	.11	-.11	.21*	-.24*	.23*	.07	.02
Group 18	-.17	.24	-.10	.17	-.14	.14	.18	-.14
Group 19	.05	.03	-.06	.17	-.05	.04	.09	-.02
Group 20	-.02	.12	.10	-.05	-.12	.16	.16	-.07
Group 21	.14	-.08	-.22*	.17	-.15	.09	-.10	.10
Group 22	.20*	-.09	-.04	.15	-.12	.19	-.13	.23*
Group 23	-.02	.07	.19	-.15	-.09	.10	.07	-.04
Group 24	.10	-.01	-.03	.12	-.12	.13	.10	.02
Group 25	.21*	-.11	.06	.06	.05	-.01	-.21*	.23*
Group 26	.09	-.08	-.24*	.11	-.17	.13	-.24*	.22*
Group 27	.04	-.01	-.24*	.20*	-.09	.07	-.07	.00
Group 28	.26*	-.18	-.21*	.26*	-.20*	.28**	-.25*	.35**
Group 29	.13	.06	-.03	.15	.20*	-.17	.11	-.01

* = p <.05
** = p <.01
*** = p <.001

Reasons For Studying Education Extramurally

It was necessary for the present study to differentiate by gender the respondent's own interpretation of their particular reasons for choosing education as an extramural subject.

Respondents were asked to briefly describe three reasons for their choice of Education as a subject. There were sixteen reasons identified from their answers.(Appendix 6) As the question was open-ended, the responses were tallied and a percentage was taken for each particular reason. These percentages need to be viewed with a certain amount of caution, especially in some of the sub-groups where the total is very small. Table 23 (Reasons for Studying Education Extramurally) displays the percentage for each response by total, and three age categories 19-29, 30-49 and 50+.

For females, over total responses, the most popular reason was Job security/ relevance (43%), followed by Gain degree/ qualification (33%). The least indicated reason given was Time/ money/ fill gap (1%).

For females aged 19-29 the highest response was for Gain degree/ qualification (44%). The next highest response in this age category was for Career preparation/ development (33%). The lowest response was for Financial reward and Future opportunities/ role model (6%).

For females aged 30-49 the highest response was for Job security/ relevance (47%), followed by More knowledge/ educational trends (32%). The lowest response was for Time/ money/ fill gap (2%).

For females 50+ years Job security/ relevance (43%) is the most indicated, followed by Gain degree/ qualification. The least indicated response at this age level was Financial reward (7%).

In the total male sample, the highest percentage indicates Job security/ relevance (37%), followed by three reasons which have equal responses. These are Job/ degree requirement/ promotion, Gain degree/ qualification and Cross-discipline papers/ enjoyment/ personal interest (33%). The lowest percentage was for Role-model (1%). In the 19-29 year age group, the highest percentage is shared with Career preparation/ development and Job/ degree requirement/ promotion (43%). The second highest percentage is for Cross-discipline papers/ enjoyment/ personal interest (36%). The lowest percentage shown is shared between three reasons - Job security/ relevance, Financial reward and Understanding people/ life/ family (7%).

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Table 23 : Reasons for studying
Education extramurally as reported by respondents : Females and Males

Motivational Scales	Females %				Males %			
	Total $n = 94$	19-29 yrs $n = 18$	30-49 yrs $n = 62$	50+ yrs $n = 14$	Total $n = 76$	19-29 yrs $n = 14$	30-49 yrs $n = 55$	50+ yrs $n = 7$
Career preparation/ development	.31	.33	.31	.21	.21	.43	.15	.29
More knowledge/ educational trends	.29	.11	.32	.29	.26	.29	.24	.29
Job security/ relevance	.43	.22	.47	.43	.37	.07	.42	.43
Job/degree requirement/ promotion	.16	.11	.18	.07	.33	.43	.31	.29
Gain degree/qualification	.33	.44	.29	.36	.33	.29	.33	.29
Influence/keep abreast of others	.04	0	.05	.07	.04	0	.04	0
Intellectual stimulation/ personal challenge	.30	.28	.29	.29	.18	0	.24	.14
Financial reward	.06	.06	.06	.07	.09	.07	.11	0
Self improvement/ fulfilment	.07	0	.08	.14	.05	0	.07	0
Cross-discipline papers/ enjoyment/ personal interest	.15	.11	.15	.21	.33	.36	.33	.29
Understanding people/ life/ family	.07	.11	.08	0	.08	.07	.09	0
Time/ money/ fill gap	.01	0	.02	0	0	0	0	0
Future opportunities	.06	.06	.08	0	.22	.29	.24	0
Role model	.02	0	.03	0	.01	0	.02	0

For the 30-49 year-old group, the highest response is for Job security/ relevance (42%). The second highest response was shared between Gain degree/ qualification and Cross-discipline papers/ enjoyment/ personal interest. The lowest reason shown in this age-group was for Role-model (2%). At the 50+ age group the greatest reason shown was Job security/ relevance (43%). The next strongest responses were shared by five - Career preparation/ development, More knowledge/ educational trends, Job/ degree requirement/ promotion, Gain degree/ qualification and Cross-discipline papers/ enjoyment/ personal interest (29%). The lowest percentage given was Intellectual stimulation/ personal challenge (14%).

In summary, 43% of females stated that the main reason for studying education extramurally was job security and relevance. When broken down by age, the main reason for females aged 19-29 was to gain a degree or qualification (44%), while for females aged 30-49 (47%) and 50+ (43%) the main reason was for job security and relevance. For males 37% stated that their main reason for studying education was job security and relevance. When broken down by age, the main reasons for males aged 19-29 were career development, job or degree requirement and for promotion (43%). For males in the 30-49 year old group 42% gave job security and relevance as their main reason for studying education extramurally. In the 50+ age group 43% of males gave job security and relevance as their main reason for studying education extramurally.

Open ended Questions in Part Six of the Questionnaire

Part six of the questionnaire required respondents to answer in an open-ended way. Because of this, some of the respondents opted not to fill in this section of the questionnaire. Therefore it needs to be kept in mind that the total number of respondents varied considerably in the amount that was written, if at all. This must be considered in relation to the interpretation of the following tables, particularly where the total numbers have been broken out into age categories.

Because some of the respondents indicated more than one motivational reason and motivational change, the total number of responses in each category was used as the divisor in calculating the percentage, rather than the total number of respondents in each dependent variable. Appendix 7 shows the 25 labels derived from the given responses in the original and changes in motivation. The same labels are used to describe the original motivations to study education and any changes that may have occurred in these. The responses were tallied for both female and male, with the percentages found for the total sample. These were broken down into the age categories 19-29 years, 30-49 years and 50+ years.

Original Motivation to Study Education Extramurally

In order to establish whether there had been any motivation change for studying extramurally, it was necessary to elicit the original motivation in enroling. It was envisaged that these motivations would differ between the age groups.

The labels used as independent variables in Table 24 (Original Motivation to Study Education Extramurally as Reported by Respondents) are interchangeable with Table 25 (Changes in the Original Motivation to Study Education Extramurally as Reported by Respondents) because different respondents repeated the same reasons for motivation.

Of the total sample of females, 17% indicated that Gain knowledge/ personal interest was the major motivation in the decision to study. The second highest percentage was for Career development (11%).

The 19-29 year-old group indicated that two major motivations led to the decision to study. These were Self-motivated/ fulfilment and Teachers College/ job (29%). Because of the low number of respondents in this age category, only three other choices in total were indicated. These were Certain age/ time finish, Rewards of Study and Career development (14%).

The 30-49 year-old group indicated that the major motivation to study was Gain knowledge/ personal interest (21%). The second highest motivation was Achieving degree (12%).

For the 50+ year group, four major motivations were shown in the decision to study. They are - Self-motivated/ fulfilment, More time/ money/ fill gap, Financial rewards and Gain knowledge/ personal interest. Because of the small numbers in this sample, only two other motivations were indicated - Intellectual/ self-challenge and Teachers College/ job.

Males over the total sample indicated that the major reason for a decision to study was Achieving degree (34%). The second highest reason was Career development (19%).

For the 19-29 year group, the major motivation was Lack self-confidence/ direction. The second highest motivation was Achieving degree (29%). Because of the small numbers in this age group who responded, only two other motivations were indicated. These were Intellectual/ self-challenge and Teachers/ job (14%).

Males in the 30-49 year group showed their major motivation to study as Achieving degree (38%). The second highest choice was Career development (23%).

Only four males 50+ years responded. Two showed Achieving degree as the most important motivational reason to begin study, with one each showing Financial rewards and Lack of self-confidence.

In summary, 17% of females showed that their major motivation was to gain knowledge and for personal interest. When broken down into age

groups, 29% of 19-29 year-old females said that the decision to enrol was self-motivation and Teachers College or job requirements. For the 30-49 year-old females, 21% showed their major motivation was to gain knowledge and for personal interest. Although there were low numbers in the 50+ group, the main motivations showed up as being self-motivation, more time and money, financial rewards, to gain knowledge and for personal interest. For males 34% stated that the major reason for studying was to achieve a degree. When broken down into age groups, 19-29 year-old males who were a small group, stated that their major motivation was a lack of self-confidence or direction. 38% of males in the 30-49 year-old group indicated their main motivation as achieving a degree. In the small group of 50+ year-old males, achieving a degree was the most important motivational reason.

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Table 24 : Original Motivation to study Education extramurally as reported by respondents : Females and Males

Motivational Scales	Females %				Males %			
	Total $n = 61$	19-29 yrs $n = 7$	30-49 yrs $n = 43$	50+ yrs $n = 14$	*Total* $n = 58$	19-29 yrs $n = 7$	30-49 yrs $n = 47$	50+ yrs $n = 4$
Self-motivated/fulfilment	.06	.29	0	.14	.03	0	.05	0
Completing second degree	0	0	0	0	0	0	0	0
Achieving degree	.08	0	.12	0	.34	29	.38	.50
Administration changes	0	0	0	0	.02	0	.02	0
Nearing end degree/ completing goal	0	0	0	0	0	0	0	0
Job related improvement	.06	0	.07	.07	.03	0	.04	0
Certain age/time finish	.02	.14	0	0	0	0	0	0
More time/money/full gap	.05	0	.02	.14	.05	0	.06	0
Intellectual/self challenge	.08	0	.07	.07	.05	.14	.04	0
Job qualification	.03	0	.07	0	.02	0	.02	0
Keep abreast family/ colleagues	.05	0	.05	.07	0	0	0	0
Financial rewards	.03	0	0	.14	.07	0	.06	.25
Rewards of study	.06	.14	.07	0	0	0	0	0
Improved self confidence	0	0	0	0	0	0	0	0
Future directions	0	0	0	0	0	0	0	0
Lost momentum/ personal circumstances	0	0	0	0	0	0	0	0
New interests/ stresses taken over	0	0	0	0	0	0	0	0
Lack self-confidence/ direction	.06	0	.07	.07	.12	.43	.06	.25
Subject choice / change	.02	0	.02	0	.02	0	.02	0
Teachers College/job	0.09	.29	.07	.07	.03	.14	.02	0
Gain knowledge/ personal interest	.17	0	.21	.14	0	0	0	0
Insight into education	.02	0	.02	0	.02	0	.02	0
Career development	.11	.14	.12	.07	.19	0	.23	0
Cost of study/finance/ life quality	0	0	0	0	0	0	0	0
Achieving status	.02	0	.02	0	0	0	0	0

Changes in the Original Motivation to Study Education

It was hypothesised that changes in motivation would have occurred over the course of study, and that these would differ among the age groups.

Respondents were also asked to note any changes in their original motivation to study education, in an open-ended way. As some of the motivations were repeated from those given as original motivations, the same labels as those in Table 25 (Changes in the Original Motivation to Study Education Extramurally as Reported by Respondents) were used. Any independent variable that indicates a nil response in all categories, indicates an original motivation and not a change in motivation.

The total female sample indicated that the major motivational change in the decision to study education was Achieving degree (17%). The second most preferred response was Self-motivated/ fulfilment (13%).

The 19-29 age group consisted of only seven respondents. Two of these indicated Lost momentum/ personal circumstances (29%), with the remaining five indicating the following motivational changes - Self-motivated/ fulfilment, Completing second degree, Achieving degree, Keep abreast family/ colleagues and Achieving status (14%).

For females aged 30-49, the major motivational change was Achieving

degree (18%). The next most indicated motivational change was Self-motivated/ fulfilment (10%).

In the females aged 50+ the highest percentage indicated Self-motivated/ fulfilment as the major motivational change (19%). The second most indicated change in motivation was shared among Achieving degree, Job related improvement and Intellectual/ self-challenge (13%).

The total male sample indicated that the major motivational change in their decision to study education was Nearing end degree/ completing goal (26%). The second most indicated reason for motivational change was Rewards of study (11%).

For the 19-29 year age group of males, which was a small group, Nearing end degree/ completing goal (30%) was the highest percentage of motivational change. The second highest percentage was shared between Improved self-confidence and Lost momentum/ personal circumstances.

For the 30-49 year males, the major motivational change at 25% was Nearing end degree/ completing goal. The second most indicated major changes were Self-motivated/ fulfilment, Completing second degree and Rewards of study.

The 50+ male age group showed that the major motivational change was Rewards of study. As this was a small group, the only other motivational changes indicated were Nearing end degree/ completing goal, Improved self-confidence and Achieving status.

In summary, 17% of females showed that their main motivational change in the decision to study education was achieving a degree. For 19-29 year-old females, 29% stated that their main change was a loss in momentum or was due to personal circumstances. For 30-49 year-old females, 18% showed the major motivational change was achieving a degree, while for the 50+ age group the main change was to self-motivation or fulfilment. For males 26% indicated their main motivational change as nearing the end of a degree or completing a goal. This was similar for 30% of 19-29 year-old males and 25% of 30-49 year-old males. In the 50+ age group (which was a small number) the main motivational change was the rewards of study.

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Table 25 : Changes in the Original Motivation to study Education extramurally as reported by respondents : Females and Males

Motivational Scales	Females %				Males %			
	Total $n = 72$	19-29 yrs $n = 7$	30-49 yrs $n = 49$	50+ yrs $n = 16$	Total $n = 70$	19-29 yrs $n = 10$	30-49 yrs $n = 55$	50+ yrs $n = 5$
Self-motivated/fulfilment	.13	.14	.10	.19	.07	0	.09	0
Completing second degree	.01	.14	0	0	.07	0	.09	0
Achieving degree	.17	.14	.18	.13	0	0	0	0
Administration changes	0	0	0	0	.01	0	.02	0
Nearing end degree/ completing goal	.07	0	.08	.06	.26	0	.25	.20
Job related improvement	.06	0	.04	.13	.03	.30	.04	0
Certain age/ time finish	.06	0	.08	0	0	0	0	0
More time/ money/ full gap	.06	0	.08	0	.03	0	.04	0
Intellectual/ self challenge	.04	0	.02	.13	.03	0	.02	0
Job qualification	.01	0	.02	0	.01	.10	.02	0
Keep abreast family/ colleagues	.04	.14	.02	.06	.01	0	.02	0
Financial rewards	0	0	0	0	.01	0	.02	0
Rewards of study	.05	0	.04	.06	.11	0	.09	.40
Improved self confidence	.06	0	.06	.06	.10	.10	.07	.20
Future directions	.03	0	.04	0	.20	0	.02	0
Lost momentum/ personal circumstances	.08	.29	.08	0	0	.14	.05	0
New interests/ stresses taken over	.03	0	.04	0	.20	0	.04	0
Lack self-confidence/ direction	0	0	0	0	0	.07	0	0
Subject choice/ change	.01	0	0	.06	.10	0	.04	0
Teachers College/ job	.01	0	.02	0	0	0	0	0
Gain knowledge/ personal interest	.01	0	0	.06	0	.07	.02	0
Insight into education	.01	0	0	.06	0	0	.02	0
Career development	.03	0	.04	0	0	0	.02	0
Cost of study/ finance/ life quality	.03	0	.04	0	0	0	.04	0
Achieving status	.01	.14	0	0	0	0	0	.20

The Decision to Study Education Extramurally and the Coinciding of Life Transitions

An important question for the present study was whether the motivations in the decision to study education extramurally were influenced by any life transition. It was expected that this would occur.

Respondents were asked to record if their decision to study education coincided with any life transitions that may have been experienced. Because of the open-ended nature of the question, not all of the sample responded and this must be considered in relation to the interpretation of Table 26. (Life Transitions Coinciding with the Decision to Study Extramurally).

For the total sample of females the most indicated life transition was Start work/ promotion/ new job (24%). The next highest percentage was Shift/ isolation (15%).

For 19-29 year-old females, the most indicated life transition was Marriage breakdown/ separation/ divorce (38%). The next most indicated transition was Start work/ promotion/ new job (25%).
The 30-49 year age group for females indicated that Start work/ promotion/ new job (25%) was the major coinciding life transition. The next highest percentage was Shift/ isolation (20%).

For the 50+ female age group the most indicated life transition was Children at university/ leave home (31%). The next most indicated life transition was Start work/ promotion/ new job (23%).

For the total sample of males the most indicated life transition was Start work/ promotion/ new job (37%). The next highest percentage was Mid-life crisis (16%).

For 19-29 year-old males, the most indicated life transition was Start work/ promotion/ new job (88%). The next most indicated transition was Shift/ isolation (14%).

The 30-49 year age group for males indicated that Start work/ promotion/ new job (36%) was the major coinciding life transition. The next highest percentage was Mid-life crisis (23%).

Only three males 50+ years responded. The major life transitions they indicated were Start work/ promotion/ new job, Illness/ accident/ death and New relationship/ marriage (33%).

In summary, for 24% of females the life transition most indicated was starting work, a new job, or promotion within a job. When broken down into age groups, 38% of the 19-29 year-old females indicated the main transition as marriage breakdown, separation or divorce. 25% of 30-49

year old females stated that the major coinciding life transition was starting work, a new job or promotion. For the 50+ female age group, 31% nominated their children starting university and leaving home as the main life transition. For males, 37% indicated starting work, new job or promotion as the main life transition. This was similar for 88% of the 19-29 year-old males and 36% of 30-49 year old males. The small number in the 50+ age group showed the main transitions as starting work, new job or promotion; illness, accident or death; and new relationship or marriage.

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Table 26 : Life Transitions coinciding with the decision to Study Education Extramurally: Females and Males

Motivational Scales	Females %				Males %			
	Total $n = 64$	19-29 yrs $n = 8$	30-49 yrs $n = 44$	50+ yrs $n = 13$	*Total* $n = 24$	19-29 yrs $n = 8$	30-49 yrs $n = 14$	50+ yrs $n = 3$
Start work/promotion/new job	.24	.25	.25	.23	.50	.75	.36	.33
Spouse absent	.02	0	.02	0	0	0	0	0
Restart after overseas travel	.03	.13	.02	0	.04	0	.07	0
Marriage breakdown/separation/divorce	.10	.38	.09	0	.04	0	.07	0
Study award	.02	0	0	.08	.04	0	.07	0
Emigration	.02	0	.02	0	.04	.13	0	0
Child start school/children older	.13	0	.14	.15	.04	0	.07	0
Shift/isolation	.15	.13	.20	.08	.08	.13	.07	0
Illness/accident/death	.08	.13	.07	.08	.04	0	0	.33
Career choice over marriage	.02	0	.02	0	0	0	0	0
Child as preschooler	.05	0	.07	0	0	0	0	0
Children at university/leave home	.06	0	0	.31	0	0	0	0
"Mid-life" crisis	.02	0	0	.08	.12	0	.23	0
Finish work	.05	0	.07	0	0	0	0	0
On own for first time	.02	0	.02	0	0	0	0	0
New relationship/marriage	0	0	0	0	.08	0	.07	.33

Extramural Education and Changes in Values as Reported by Respondents

It was probable that the decision to study extramurally, the occurrence of any life transitions and the formation of new values might be inter-related.

Respondents were asked to record in an open-ended way whether the combination of studying education extramurally and the coinciding of any life transitions may have caused the formation of new values. Again it needs to be remembered when regarding the percentages, that not all respondents filled in this part of the questionnaire. Consequently caution must be exercised particularly with regard to the broken out age groups.

Table 27 (Extramural Education and Changes in Values) outlines the results as a percentage of the total number of responses made.

Females in the total sample indicated two major value formations. These were Independence/ individuation and Worth of self/ gender (16%). The next highest percentage shows Understanding actions/ differences of others (11%).

Females aged 19-29 years indicated that Directions for future/ life reassessment (44%) was the major value formation. The next highest percentage was Worth of self/ gender (22%).

In the 30-49 year age group, females indicated Independence/ individuation (20%) as the major value formation. The second highest percentage was indicated as Understanding actions/ differences of others (15%).

For the females in the 50+ age group, the highest percentage for value formation was Worth of self/ gender at 31%, followed by Worth of education/ teaching methods 11%.

Males in the total sample indicated the major value formation as Understanding actions/ differences of others (23%). The second highest percentage indicated was Worth of education/ teaching methods (16%).

Males aged 19-29 years (a small group) indicated two major value formations. These were Understanding actions/ differences of others and Worth of education/ teaching methods (27%).

In the 30-49 year age group, males indicated Understanding actions/ differences of others (21%) as the major value formation. The second highest percentage was indicated in three value formations - Worth of career, Worth of research/ disciplined thinking and Worth of education/ teaching methods (11%).

There was only one male in the 50+ age group who responded with Independence/ individuation as the major value formation.

In summary, 16% of females showed that the major value formations were towards independence, individuation and worth of self or gender. When broken into age groups 44% of females aged 19-29 showed the major value formation as being directions for the future or life reassessment. 20% of females aged 30-49 nominated independence and individuation as the major value formation. In the 50+ age group, 31% of females showed worth of self or gender as the main value formation. For males, 23% stated that their main value formation was understanding the actions or differences of others. When broken down by age 27% of males aged 19-29 indicated their main value formations as being understanding the actions or differences of others. This was similar for 21% of males in the 30-49 year age group.

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Table 27 : Extramural Education and Changes in Values as reported by Respondents : Females, Males

Motivational Scales	Females %				Males %			
	Total $n = 62$	19-29 yrs $n = 9$	30-49 yrs $n = 13$	50+ yrs $n = 13$	*Total* $n = 31$	19-29 yrs $n = 11$	30-49 yrs $n = 19$	50+ yrs $n = 1$
Worth of career	.08	0	.13	0	.06	0	.11	0
Independence/individuation	.16	.11	.20	.18	.06	0	.05	100
Directions for future/life reassess	.11	.44	.08	0	.03	0	.05	0
Job accountability	.02	0	0	.08	0	0	0	0
Changed philosophy of education	.03	0	.03	.08	.10	0	.16	0
Worth of relationships	.02	0	0	.08	.03	0	.05	0
Understanding reactions/differences of others	.11	.11	.15	0	.23	.27	.21	0
Worth of research/disciplined thinking	.03	0	.05	0	.10	.09	.11	0
Open-mindedness	.06	.11	.08	0	.03	.09	0	0
Worth of education/teaching methods	.08	0	.08	.15	.16	.27	.11	0
Strengthen beliefs	.02	0	.03	0	.06	.09	.05	0
Worth of self/gender	.16	.22	.10	.31	0	0	0	0
Worth of health/happiness	.02	0	0	.08	0	0	0	0
Cultural sensitivity	.03	0	.03	.08	.06	.09	.05	0
Worth of education for social mobility	.02	0	.03	0	.03	.09	0	0
Communication in interaction	.03	0	.05	0	0	0	0	0
Recognition of coping strategies	.02	0	0	.08	.03	0	.05	0

Demographic Profile

A demographic profile of a "typical" FEES was developed from an analysis of the demographic variables. The highest percentage from each of the demographic variables was found by dividing the total number of female respondents into the frequency in each category. This enabled an accurate representation of a typical FEES to be created. The data is as follows:

Table 28 - Demographic Profile Variables - Female

Demographic Variable	Category	Percent
Marital Status	Married	60.2
Occupation	Low Professional	71.7
Country of Origin	New Zealand	85.9
Age	45 - 49	20.8
Number of Dependents	1 - 5 children	54.5
Myers-Briggs Type	ISTJ	15.0
Myers-Briggs Temperament	Sensing-Feeling	36.6
Education Variables	University Entrance	39.8
Education of Mother	Secondary	52.5
Education of Father	Secondary	40.2
Home Variables	Own Home	72.0
Location	City/large town	62.6
Earnings	$30 - 40 000	26.0
Town/City	Auckland	30.3
Where born	New Zealander	92.9
Vocational training	Low professional	83.1
Employment variables	Employed	84.7
Occupation of Father as a Child	Clerical/highly skilled	35.4
Occupation of Father Now	Dead	40.6
Occupation of Mother as a Child	Home	60.0
Occupation of Mother Now	Retired	32.0
Years of study	0-5 years	48.8
Completion of degree	15-20 papers	30.2
Satisfied with life	Satisfied	40.8
Satisfaction with Choice of Education	Very satisfied	54.17
Ethnicity	European	91.0

Chapter 6

Discussion

The present study sought to discover what motivates FEES in the decision to study education extramurally, whether the motivations are different over age groups and whether the original motivations have changed. Frustrations and benefits of study were also examined. The present study also investigated whether the motivations are related to personality types and whether the decision to study extramurally coincided with a life transition, thus causing the formation of new values. Comparisons in each of these areas of enquiry were made with MEES in order to more fully illuminate the FEES' motivations.

Limitations of the Present Study

Because of the open-ended nature of Part 6 of the questionnaire (which involved changes in motivation and the coinciding of life transitions, with the consequent formation of new values), some respondents did not write anything, particularly those in the 19-25 age group and the 50+ group. This made comparison with the bigger 26-49 age groups difficult. However, percentages were able to be made and a feeling for any developing patterns could be obtained, which will be useful for further study.

It was surprising that Part 5 of the questionnaire (which dealt with the positive effects of study), did not show as significant by factor analysis. This was due to the fact that Part 5 was marked strongly as very true, giving rise to an over-load in one factor. This had the effect that, as most agreed, a variable could not be obtained - a correlation can not be obtained without a variance. An interesting point was that many respondents felt that they already possessed the positive traits described, finding the three-point Likert Scale too limiting. The positive effects described in the questionnaire - such as I am better organised; I have more self-esteem; I am proud of my success - were obtained from the pilot questionnaire and interviews. Farmer and Vispoel (1990), comment that in order to gain a better understanding of achievement behaviour (which is necessary in all learning), affective reactions need to be considered alongside negative reactions as both are important dimensions of behaviour.

Part 6 of the questionnaire invites respondents to discuss changes in motivation to study. This may have been worded ambiguously as some respondents described a falling off in interest and a decline in study habits. It did however, produce a pattern which may be worth following up in a subsequent study which is relevant to why extramural students lose their motivation (drive) to study. This would be of benefit in structuring extramural courses. Bown (1990), makes the distinction between "motivation to learn" and "motivation to attend" stating that

intrinsic human motivation includes curiosity and an urge for knowledge. This has implications for those who are involved in teaching extramural students.

A Description of Analysis of Variance For the 29 Motivation Scales

Gender

Males showed a greater tendency than females with the motivation concerning helping their children and setting an example for them to follow. This could be interpreted as a role model motivation from the point of view that career orientation is a prime facet of the masculine role. The fact that women also indicated this but to a somewhat lesser extent, may confirm this.

Females were twice as likely as males to have difficulty attending compulsory on-campus courses with children. Also females tended to express the difficulty of extramural study when children were sick. This demonstrates the conflict that is experienced between the roles of mother and career and study demands (Fitzgerald and Betz, 1983). Hall (1975) found that the number and age of children that women had was directly related to the amount of role conflict they experienced.

> "I had arranged to have my baby looked after by my mother while I came to Massey, but then they changed the course to a

> week earlier. Mum was not able to come then so I had to pay a stranger to look after her."
>
> (Lynn, 28)

> "My kids always seem to come down with something just when an assignment is due. Then I have to ask my lecturer for an extension. They're pretty understanding though. I suppose they have got kids themselves."
>
> (Judy, 31)

Females were half as inclined as males to obtain new knowledge as part of their motivation to study extramurally. This is contrary to von Prümmer (1988), who found that for women, the most relevant factor in their decision to study was the opening up of new areas of knowledge. Part of the answer may lie in the fact that von Prümmer's research was carried out at a West German distance teaching university that does not offer undergraduate degree programmes. In the areas of enjoyment, intellectual stimulation (confirmed in Galliano 1982), understanding how people learn and communicating on an intellectual level, females and males showed equal preferences.

Very significant gender differences in the barriers to commencing study at an earlier time were found in the present study. Twice as many females as males reported that an early marriage, early pregnancy of

self or partner, and single parenting demands were recognisable barriers. According to Gilligan (1982), women reason differently about moral dilemmas and are more tied to a perspective of care and responsibility and emphasising relationships and attachments between people more than men are. Whereas the present study found that females and males reported equally on the fact that too many other roles prevented them from studying earlier, it is apparent that those roles differ considerably. This is perhaps demonstrated by the fact that both females and males reported equally in Group 18 (too young to enrol and parenting demands), where youth and the stresses of finance and a young family could be factors. This also ties in with the very significant difference in gender in Group 15, which involves no support from family and partner and the non-availability at that time of good child-care.

> "I was 19 and just about to start my P.A. year when I found I was pregnant. In those days abortion was hardly an option and there was no D.P.B. I had to get married and care for our child while I watched my husband get on with his career."
>
> (Ellen, 43)

Enabling events in the decision to begin study showed very significant differences. 59% of females and 29% of males reported the motivation that their children were old enough now, with 64% females and 44%

males indicating the more settled nature of their lives as a motivation for beginning study. Again, it can be seen that the decision for a female to enrol is strongly embedded in the context of what is perceived as other people's needs. In Group 17, 10% more females than males cited a diminished workload as a motivation to begin study. Money and Anderson (1988) confirm in their study that the lessening of role demands was one of the most reported motivations for women to begin study.

The motivation that study was something to do in spare time was equally weighted between females and males and was related to a diminished work-load. However, 51% of females and 28% of males regarded the spare time as time to spend on themselves. This could possibly be due to the fact some of the female respondents are studying while staying at home to care for children and some female respondents aged over 50 would have fewer family demands.

Another very significant gender difference in the enabling of enrolment was the convenience of extramural study because of family and job commitments - 88% of females and 65% of males. An almost equal number of females and males reported that their job offered the support, time, money or scheduling and that they had received study grant assistance. As there was an almost equal number of females and males in the low professions Group, it could be possible that teaching

would offer the support and flexibility of scheduling with the timing of university on-campus courses to coincide with school holidays, and also the availability of study grants. The convenience of study needs also to be seen in the light of those who stay at home to look after young children.

> " It's really convenient for me because I stay at home to look after my two children. This way I don't have to rush off to lectures and I can revolve my study time around my family commitments."
>
> (Margaret, 32)

> "My wife works full-time. We decided that the first one to get a job would work at that while the other one stayed at home to look after the kids. She got a job first so I try to study while I look after the kids."
>
> (Ken, 30)

Age

Females in the 50+[1] age group are more likely to attribute their decision to begin study more to reasons of being previously over-loaded, than do females in the other age groups. This includes parenting and marriage demands as well as the demands of other roles. As women grow older, their children grow up and household responsibilities lessen

[1] According to the mean but no two groups significantly different by the Scheffe test

with the decreasing family (Hildreth, Dilworth-Anderson and Rabe, 1983). Also, females aged 50+[1] indicated strongly that the decision to study was motivated by the desire to do spend some time on themselves, and giving them something to do in their spare time.

Females in the 50+ age group showed a significant difference from those females in the 19-29 age group in the motivation area concerning the personal challenge of studying, the obtaining of new knowledge, the intellectual stimulation and in the understanding of how people learn. Yet in males, the 19-29[1] age group indicated this more strongly than the other male age groups, who would not be starting out in a career. Why the 19-29[1] year age group for females were not as inclined to this is not clear and needs further research, perhaps along the lines of the "invisibility" of women in a male-dominated society. The difference can be seen in terms of the older age group of women being further away from their formal schooling years, therefore being perhaps feeling more in need of intellectual stimulation. Also, women in the 50+ age group would be less likely than the younger age group to be concentrating on career and family demands. This is confirmed by the very strong indication 50+[1] females made compared with 19-29 females in the motivation to study to do with children being old enough, a more settled life, good enough finances and the need to compensate for a gap in their lives. Glick (1977) has termed this the "empty nest period", but it

[1] According to the mean but no two groups significantly different by the Scheffe test

also must be stated that 50+ women have increased opportunities to explore careers outside of the home. As well, 50+ women are confronted with 25-35 years of being without the maternal role, in the light of rapidly advancing social and technological changes, coupled with a longer life-span.

Males in the 50+[1] age group showed an even stronger significant difference than the females over the age groups in the motivation of a diminished work load and a more settled life. It is possible that males in this age group may also be preparing for the extra years ahead in the light of more time on their hands, being less likely to be as career-oriented than the younger age groups.

In the 30-49[1] year age group, females indicated more strongly than the other age groups that they were frustrated by getting time off work and financing their study. This may be related to career and family demands in that this age group is more into the role of career and a growing family which would deplete finances and time. Another possible reason for the mentioned frustrations in the 30-49 age group is that this group contained the highest proportion of separated and divorced women. Read, Elliot, Escobar and Slaney (1988) in their study concerning marital status and motherhood on re-entry women, state that separated and divorced women considered financial need as a more salient reason

[1] According to the mean but no two groups significantly different by the Scheffe test

for seeking their career goals than did married women. This is consistent with Weiss's (1984) finding that a steep drop in household income follows marital disruption. There is a stronger difference between males aged 19-29 and males aged 30-49[1] in the frustrations of finance for study and getting time off work. Younger males could be more likely to be unable to meet the financial demands of study and may not be in the position to get time off work easily.

For males in the 30-49[1] age group, a stronger indication was made for the motivation of helping and being an example to children than in the other age groups. This possibly indicates that males in this age group have children in their formative years when role models appear to be more emphasised. Also their children would still be in formal schooling where education involves parental support. Males in the 30-49[1] age group had a stronger preference than the other age groups in the motivation of needs within the career in the light of career achievement, promotion and getting over a salary bar. This highlights the emphasis on career for men of this age. Males of this age group also showed a stronger leaning than males in other age groups towards the barrier of too many other roles. this ties in with career and family commitments. This is related to the stronger indication males made in this age group than the other male groups in the frustration of child difficulties and study.

[1] According to the mean but no two groups significantly different by the Scheffe test

Ethnicity

More Maori/Polynesian females than other ethnic groups showed as important the motivation to study in order to achieve within a career, to get over a salary bar and to gain job promotion. This may confirm Ranginui Walker's statement that education is a status-sifting device and that pakeha dominance over Maori has created an achievement gap between Maori and pakeha in education.(1985)

> "The fact that I'm a woman and I'm Maori means I have to work harder to prove that I'm somebody."
>
> (Lynn, 33)

In the area of frustrations to do with studying extramurally, the lack of study skills shows a significant difference between Maori/Polynesian groups and the European group. This is also true for males[1] between the two groups. As the meaning for this is unclear, the item requires further research. A very significant difference exists between the Maori/Polynesian group and the European and Asian groups.

The female Maori/Polynesian group indicated more strongly than other groups the influence of others and achievement within a race in the decision to study. This could make sense in the light of the need for more highly educated Maori/Polynesian in New Zealand. The same motivation showed a stronger trend for Maori males than for European males.

[1] According to the mean but no two groups significantly different by the Scheffe test

In the motivation to study because others were studying and also because the study would help in understanding the development of children, Maori females indicated this more strongly than the European group. Once again this could be due to the heightened awareness of the need for Maori in top positions in New Zealand and to the whanau influence, but further research is needed in this area. This need for research is further reflected in the very strong significant difference found between Maori and European males in the motivation to study covering time and money. Maori males indicated this very strongly.

Salary

For females, a motivation in the decision to study (which was indicated strongly), was the need to earn more money and to demonstrate financial independence, especially in the salary range of $20 000-40 000[1]. This is perhaps linked to the discrepancy which exists between male and female wages in light of the fact that there are more males in positions of responsibility in education. (NZEI Annual Report, 1991)

There is a very strong difference in the motivation of job achievement and promotion, between females in the salary ranges of $0-10 000 and $30-40 000. Females in the higher salary bracket indicated the stated motivation with a far greater preference than those females in the lower salary bracket. Perhaps this due to the fact that the latter are more

[1] According to the mean but no two groups significantly different by the Scheffe test

likely to be still developing within a career or that they are being supported financially and do not yet have a career. Males[1] in this salary range also indicated this but not so strongly. This could be that males in this salary bracket are still achieving within their careers and in comparison to women it might tie in with the idea that women tend to work harder at being recognised in their careers.

> "I was the only girl in my family and I had to work twice as hard as my two brothers. We all went to university and were all as smart as each other. They got senior positions before I did and I'm the oldest."
>
> (Sharon, 45)

Occupation of Respondent

For females, The Clerical/highly skilled group differed significantly from the High Professional group in the motivation to study concerning setting an example for and helping their children. It may be that the Clerical/highly skilled group are catching up on previously lost educational chances and in the forming of new values of the worth of education, want to pass these on to their children. Whereas the High Professional group may have seen the worth of education earlier and thus brought their children up with those values, particularly as this group is classed as the highest on the Elley-Irving Socio-Economic Scale. The Low professional group indicated more strongly than the other

[1] According to the mean but no two groups significantly different by the Scheffe test

groups that they were more inclined to the motivation to study of wanting to earn more money and wanting to be more independent. However, the High Professional group indicated this motivation more strongly than did the Clerical/highly skilled group. This could possibly be because the women in the High professional group were striving to compete against males for the top positions in their career - an area in which there are fewer women. This is seen in the number of female principals in New Zealand compared to male principals. In 1990 the percentage of women as permanent principals by school grading G4 was only 11.5% (NZEI Annual Report, 1991).

The Low professional group indicated more strongly than the other groups in the frustration area of the financial difficulties of study and getting time off work. The reason for this is unclear as it would seem that the Clerical/highly skilled group would experience these difficulties more because of a lower salary and the unavailability of school holidays. In the above mentioned three areas of Help my children, Need for Money and Time/money, the High professional group shows a strong significant difference to the Clerical/highly skilled group. Chapman (1986) states in her profile of women principals that women are improving themselves professionally by gaining extra qualifications beyond those gained with their Trained teachers Certificate. It could be that the change in the economic situation has meant that more women

[1] According to the mean but no two groups significantly different by the Scheffe test

are looking to their teaching and consequent promotions within the service as a career, with the prospect of being in the education service for most of their working lives.

For males[1], the Clerical/ highly skilled group show a much higher frustration level than the other groups of being unable to talk to lecturers and the loneliness of working just from books. This may be partly to the fact that it is their first attempt at learning at the tertiary level and being unused to university practices. The difference here from females in the same group might possibly be attributed to the males being less able to communicate frustrations.

The male Low professional group indicated more strongly than the Clerical/ highly skilled group the motivation to study for getting over a salary bar and to show achievement and the need for promotion in a career. This may be that this group is more likely to be in positions of responsibility and are looking to get further up in the career.

Education of Mother

The females in the Primary education group showed the strongest preference for the motivations to study of a personal intellectual challenge and the barrier of enrolling caused from too many other roles, than did the other groups. The Primary[1] education group also showed a

[1] According to the mean but no two groups significantly different by the Scheffe test

preference in the motivational area of spare time for themselves, than did the other groups. As well the Primary educated group had a stronger inclination to the barrier of the poorness and non-recognition of education than did the other groups. The females in the Secondary education group indicated the motivations of getting a degree or qualification for a new job more strongly than did the other groups. The females in the Secondary education group also indicated more strongly than the other groups the frustrations of financing the study and getting time off work.

Strong differences were noted between the female Primary and Tertiary education groups in the motivational areas of personal challenge and the burden of other roles. It becomes apparent that mothers who were primary educated are older than those mothers who are Tertiary educated. Females of Primary educated mothers want to obtain more knowledge and intellectual stimulation much more than the females of Tertiary educated mothers. This may be due to the fact that the mothers have indicated their lack of educational opportunity to their daughters, possibly wanting them to achieve more than they did. Females of Primary educated mothers also differ more than the females of Tertiary educated mothers in the barriers of not enrolling at an earlier time because of parenting demands, too many other roles and no support from family or partner. It is possible that the females of the Primary

[1] According to the mean but no two groups significantly different by the Scheffe test

educated groups are following the parenting pattern of their mothers, possibly with an early marriage and the emphasis that was put on the domestic role of women at that time.

> "Mum got married early and so did I. Then I realised there must be more to life so I started studying. Now I've got a better job."
>
> (Jane, 27)

The Secondary education group differs very strongly to the Tertiary education group in the motivational areas of needs within the present career and the frustrations of finance and time off work. Females of Secondary educated mothers showed more strongly that they needed a degree in order to change jobs or that it was needed as part of their career demands. Perhaps these females are the product of an era which has seen greater educational opportunities open for women, and a lessening emphasis of the female domestic role. The financial frustrations for females of Secondary educated mothers could be due to the fact that these females come from a lower socio-economic class than do those females of tertiary educated women. It is also possible that the females in the tertiary educated group are younger and do not have the same family responsibilities as those females in the Secondary educated group.

[1] According to the mean but no two groups significantly different by the Scheffe test

The Tertiary educated group for females differs very strongly to the other two groups in the frustration area of the difficulty of attending compulsory courses with children and the difficulties when children are sick. This probably relates to the fact that the females of Tertiary educated mothers are younger and do not have the child-care responsibilities of the other two groups.

There was a strong difference between the Primary educated group and the Tertiary group in the decision not to enrol at an earlier time because of the poorness of the family and the little importance that was placed on education. This is related again to the fact that the Primary educated group are more likely to be older, coming from a time when education for women was not so important. The Primary educated group for females favoured the motivation of a new life-role more strongly than the other groups. This also indicates that these women are older than the other groups, having less family responsibilities thus needing perhaps to fill a gap, and looking to the future.

> "I haven't got any family worries now. My life has taken a new direction. I'm looking towards travelling."
>
> (Peggy, 53)

Males showed one strongly significant difference between the Tertiary educated group and the Primary educated group in the decision not to

[1] According to the mean but no two groups significantly different by the Scheffe test

enrol earlier. The males whose mothers were Tertiary educated showed that they suffered more from a poor self-image than did those of the other groups. It is difficult to reason why the younger males admitted to a poor self image - there are the possibilities of the effects of the feminist wave, working mothers and the fact that young men of the nineties are more able to show feelings. This is another possibility for further research.

Education of Father

Females[1] of Primary educated fathers indicated more strongly than the other groups that they were motivated by a need to earn more money and to be financially independent. One reason for this could be the greater educational and career opportunities that have opened up for women of this age who would be in their forties. Another reason may be that these females grew up when the age of consumerism was starting, perhaps indicating the need for things that the family of origin didn't have.

Females of Primary educated fathers also showed a stronger inclination than females of Secondary educated fathers to be motivated by self-improvement needs and thwarted in earlier enrolment because of the demands of other roles. Self-improvement motivations for females of Primary educated fathers included learning to communicate on an

[1] According to the mean but no two groups significantly different by the Scheffe test

intellectual level, the need for personal growth, to improve self-esteem and to have more confidence in themselves. Ladan and Crooks (1975) found that mature women students were motivated by self-actualisation through developing a self-identity. Reehling (1980)found that older returning women had a high internal motivation for self-improvement. Von Prümmer (1988) notes that the older returning female student is highly motivated by the wish for self-improvement and to increase self-esteem. With regard to the barrier to enrolment because of the pressure of other roles, females of Primary educated fathers showed the influence of parenting demands and no support from partner and family. This may reflect again the emphasis on a marriage and family role more for this age-group and less on education and career.

Females of Primary educated fathers showed more strongly than females of Secondary educated fathers that they were motivated by the idea of a personal challenge. This would relate to the same reasons as for the education of the mother as previously stated.

The females from Primary educated fathers showed a much stronger preference than did the other groups for the limitations of poorness of the family of origin and the relative unimportance with which education and careers for women were then viewed. Females in this group also indicated more strongly the new life role motivation to study. Reasons

[1] According to the mean but no two groups significantly different by the Scheffe test

for these must relate to those given for females of Primary educated mothers.

Males of primary educated fathers show a very significant difference from males whose fathers are Secondary educated in the motivational area of the need for a degree for a career change. Ladan and Crooks' (1976) study on continuing education for men that men in their forties resumed their education in order to achieve further occupational success. This is confirmed by Spanard (1990), who reports the development of a new career is one of the primary goals for returning males in their forties.

Males of Primary educated fathers also indicated more strongly than the other groups the motivation to study for more status. This might be related to the motivational needs of career change and promotion within a career, along with the acquisition of power and control of their future with regard to new administration changes within the education system.

Occupation of the Mother When the Respondent was a Child

Females[1] whose mothers came from the Skilled[1] group were more inclined than the other groups to nominate barriers in the decision not to enrol at an earlier age. These were to do with the family being too poor and the family not seeing education as important. Unless the

[1] According to the mean but no two groups significantly different by the Scheffe test

mother acted as a role model in promoting the value of working for money over education, the reason for this does not seem clear and would require further research.

Females whose mothers came from the Retired/home Group were more inclined than other groups to indicate the motivation to enrol as something to do in spare time and that as the workload had diminished they wanted to spend some time on themselves. It could be that these women are of an older age group with lessened family responsibilities, who put off studying until the family was old enough. Also it is possible that they are catching up on missed opportunities.

Females whose mothers came from the Skilled Group showed a significant difference from the other groups in the motivation to study concerning others. These women were motivated from the urging of friends partners or parents, and from the anticipation of understanding the development of their future family. These women were in their thirties and forties and it is possible that they have spent time developing their careers. This ties in with the role model idea of working for the benefit of finance rather than the benefit of education.

Males[1] whose mothers came from the Skilled group were more inclined than males in the other groups to be frustrated by the difficulties of

[1] According to the mean but no two groups significantly different by the Scheffe test

home and family demands, and study. Also the convenience of study and support offered by their jobs was a stronger motivation than those in the other groups. Again the reasons for these motivations do not seem clear and would require further research.

Between those males whose mothers have come from the Skilled and Retired/ home Groups there exists a strong difference. Males whose mothers come from the Retired/ home Group show more frustration from difficulty financing study and getting time off work for in-campus courses. There seems to be no apparent connection.

Occupation of Father When Respondent Was a Child

Females[1] whose fathers come from the Clerical/ skilled Group show stronger preference than do the other groups for the motivation of achievement and promotion within a career. They also experience more frustration with balancing home and study demands[1], more frustration with learning study skills and more frustration with assignments getting back late[1], and more frustration with the difficulty of balancing work and on-campus travel[1]. These women may have had limited experience with university methods and would appear to be balancing family, study and career demands in their quest for qualifications.

[1] According to the mean but no two groups significantly different by the Scheffe test

Females[1] whose fathers have come from the Unskilled Group show a greater inclination than the other groups towards the barrier in earlier study that is to do with poorness in the family and the family not seeing the importance of education. Women in this group may have had to leave school early in order to help support their family. There is a strong difference between this group and those females whose fathers have come from the Clerical/ skilled Group in that the former group were motivated more from the influence of others.

Females whose fathers come from the High professional Group differ significantly from those whose fathers come from the Unskilled Group. The latter were more motivated to begin study because of a more settled life, good enough finances, and compensation for a gap in their lives. The women in this group may not have had an earlier educational opportunity and perhaps have concentrated more on job and family demands. With the children getting older and leaving home there may not be so much of a financial squeeze than when they were younger.

Occupation of Mother Now

The females[1] whose mothers are presently in the Professional/ clerical and Retired/ home groups differ significantly from those females whose mothers are presently in the Skilled group. This difference is stronger in these groups in the motivation of wanting to help their children and set

[1] According to the mean but no two groups significantly different by the Scheffe test

an example. The females whose mothers are in the Professional/ clerical group may be involved in education, thus seeing it as important for their children. Those females whose mothers are in the Retired/ home group may be older mothers whose children are in Secondary school and see the importance of a role model.

Females whose mothers are presently in the Retired/ home group were more inclined than the other groups to being thwarted in earlier study by the demands or parenting. This confirms that they are older mothers who also showed stronger motivations than the other groups in the motivation of the convenience[1] of extramural study. The fact that the group are older mothers is further confirmed by the stronger motivation than the other groups in the motivation for a new life role[1] which describes the children are older and life is more settled.

Males[1] whose mothers are presently in the Skilled Group show a greater significance than those males in the other groups in the frustration and isolation of studying extramurally. It is possible that this is the first exposure for these males to university methods.

Males[1] whose mothers are presently in the Clerical/ highly skilled Group differ significantly in the time/money frustration than those males whose mothers are in the other groups. Males whose mothers are presently in

[1] According to the mean but no two groups significantly different by the Scheffe test

the Clerical/ highly skilled Groups have more difficulty financing study and getting time off work for on-campus courses. There appears to be no reason for this and further research may be needed.

Males whose mothers are presently in the Clerical/ highly skilled Group show a strong difference from the other groups in that they are less likely to be frustrated by assignments taking time to come back. Perhaps this group is more used to the university and education systems.

Occupation of Father Now

Females[1] whose fathers are presently in the Retired/ home Group showed a stronger preference than the other groups for the motivation to study concerning the need for a degree or qualification in order to get a new or better job. These females possibly represent the late forties and over age group who are moving up within their careers or considering new ones for the future.

Males[1] whose fathers are presently in the Unskilled Group were more strongly inclined than the other groups to be motivated to study by the influence of others. This influence could maybe have come from teachers or their children who have achieved more scholastically. The motivation also included the idea of achieving for one's race. It could be posited that Maori respondents whose fathers were presently in the

[1] According to the mean but no two groups significantly different by the Scheffe test

Unskilled Group were influenced by this motivation, but this needs further research. The males in this group also showed more strongly than others that they found frustrations with financing study and getting time off work for on-campus courses. Whether or not a possible reason for this is because they are in a low socio-economic group like their fathers remains unclear.

Satisfied With Education

Males[1] in the Not Satisfied Group showed a greater difference than the other two groups in the motivation to study concerning needs in their job. These were the need to get over a salary bar to gain more money and the need for achievement and promotion within their job. Although these males are dissatisfied with the choice of Education as a subject, it must be seen as a compulsory component for the qualification. Restriction from other areas of more personal interest could possibly be causing the dissatisfaction.

Satisfied With Life

Females[1] in the Not Satisfied Group showed a stronger leaning than the other groups to the frustrations and difficulties involved with study and sick children and the attending of on-campus courses with children. Some of this group of females may include those women who are bringing up children on their own. Read, Escobar and Slaney (1988),

[1] According to the mean but no two groups significantly different by the Scheffe test

report that dissatisfaction at home was experienced more by separated and divorced women than by unmarried women and note that the reasons may be due to the reasons behind the separation and divorce as well as the change in status brought about by the separation and divorce. Mohney and Anderson (1988) suggest that the major responsibility for home-making and nurturing along with career and study demands, can cause women to experience role conflict and the feeling that there is not enough time being spent on the woman's needs.

> "I wish I could just lock myself away every day for an hour to catch up on my study. The kids are always wanting something."
>
> (Angela, 32)

Males[1] in the Not Satisfied Group were more likely than those in the other groups to express frustrations over study skills and the feeling of being isolated[1]. The males in this Group's frustrations included the difficulty of the terminology, trouble with learning to write essays, the feeling that they weren't working fast enough, and the frustration of working just from books without any instant help. These frustrations coupled with other responsibilities would certainly cause a general dissatisfaction with life. Butler (1981) comments that study skill problems are inherent with the mature returning student and provision needs to be made for overcoming the difficulties.

[1] According to the mean but no two groups significantly different by the Scheffe test

In comparison with the other groups, males in the Not Satisfied Group were very strongly inclined towards the frustration involving the attitudes of others. These involved the experiencing of negative attitudes of others and sex-stereotyping. While the latter frustration is surprising and would need further investigation, literature suggests that the man who continues his education may be viewed by others as pursuing "non-masculine" goals. (Ladan and Crooks, 1975) Further research by Ladan and Crooks (1976) refutes this. While the literature from Ladan and Crooks is 16 years old and is in a Canadian setting, a replication of the study may prove interesting in the light of males living in New Zealand society in which male-dominated traditions still survive.

The Very Satisfied Group of males differed strongly from the Non-satisfied Group of males in the frustration area of no support from family and no good child-care. This is puzzling and is possibly an anomaly from the Likert Scale where the Very Satisfied group may have marked these not true.

Vocational Training

Males[1] in the Clerical/ skilled Group show a stronger inclination than males in the other groups not to have enrolled at an earlier time because of disinterest in education and a lack of finance in the original family. This seems to tie in with socio-economic class and a lesser

[1] According to the mean but no two groups significantly different by the Scheffe test

emphasis on the importance of education for males as a career. Males[1] in the Clerical/ skilled Group also differed from the other groups with relation to the frustrations involved in negative attitudes of others. These could stem from the relative unimportance the family of origin placed on education coupled perhaps with "macho" reactions of workmates.

Males in the High profession Group differ strongly from the other groups in the motivation to study in order to prove that it can be done and to show the satisfaction of achieving. The High profession group indicated this motivation much less than the other groups, with the inference that they have already achieved within a career or university and do not feel the same need for achievement.

Myers-Briggs Temperament

Males[1] with the Myers-Briggs temperament NF differed strongly from the other groups being more inclined to indicate frustrations of difficulties with child-care and study. The NF group would possibly be more affected by these frustrations because of their ability to understand and communicate with people and their awareness of other people's needs. This Group likes to focus on the effects situations have on people, hence they view the difficulties involved with children as being very important.

[1] According to the mean but no two groups significantly different by the Scheffe test

Myers-Briggs Psychological Type

The present study sought to understand if motivations of were FEES related to personality types. Clarke, Smith and Moran (1981) suggest that female education students make a conscious, aware decision to choose their courses not from personality motivations, but from a keen awareness of different orientations to education. Results of means showed that for females and males, the most frequently occurring type was ISTJ. The ISTJ type chooses careers where their talent for organisation and accuracy is rewarded. As this type often moves into supervisory and management role, it makes sense that they are studying with an eye to promotion in their career. Also this type has a talent for absorbing and remembering facts which would stand them in good stead for the demands of study.

Females[1] of the Psychological Type ESTP indicated more strongly than the other groups the motivation of always wanting to get a degree. This fits in with how an ESTP type can see ways of achieving goals by using circumstances in new ways, thus the concept of extramural study would suit this type. As an ESTP may have to work harder at school it is possible that they would come back to study later in life.

Females[1] of the Psychological Type ENFJ were more strongly inclined than the other groups to the barrier on earlier enrolment because of the

[1] According to the mean but no two groups significantly different by the Scheffe test

poorness of the family and the little value that was placed on education. An ENFJ type is more likely to see possibilities beyond what is known, using intuition to heighten insight. Hence the idea of ignorance and poverty as reasons for barriers, coupled with the fact that an ENFJ will base decisions on personal values.

Males of the Psychological Type ESTJ showed a very strong significant difference with the Psychological Type ISFJ in the barrier to an earlier enrolment because of self-image needs. Both types enjoy organisation but an ISFJ is more involved in feelings. An ESTJ would live by the rules, so the concept of a poor self-image would not be acceptable to them. However an ISFJ, although having a respect for facts, can have intense private feelings. If these feelings are undeveloped, an ISFJ may retreat inwardly and not be effective in the world.

Males[1] of the Psychological Type ENFP showed a stronger leaning than the other groups to the frustrations involved in child-care and study. This type shows a concern for people and show a lot of enthusiasm for starting projects. As these projects take compulsive energy, it is possible that this type will experience conflict between their feelings for people and completing what they set out to do.

[1] According to the mean but no two groups significantly different by the Scheffe test

Continuous MBTI Scores For Females and Males

These are derived simply from a direct count on each of the bi-polar dimensions, whereas the MBTI is based on a calculation where the polar opposites are subtracted from the other score. The difference is standardised. The score then, is taken as definitive but in the case of the continuous score, it is taken separately and not in relation to each other. It is based on the assumption that each has meaning separate from each other.

Group 1: More Status

The male Intuitive correlates very strongly with the need for more status because of the interest shown in new possibilities. The male Perceptive has a strong correlation because of the flexibility that status might offer. Sensing, Thinking and Feeling males are negatively correlated to the idea of status. Sensing types tend to ignore their aspirations, Thinking types make decisions on evidence and Feeling types make decisions based on values.

Group 2: Help Children

The female Extrovert related strongly to the motivation of helping and setting an example for children possibly because they tend to experience the world in order to understand it. The female Perceptive correlated strongly with this motivation perhaps because they welcome a new light on situations.

Male Introverts and Sensing types correlated negatively to the motivation of helping children, respectively this could possibly be because of a focus on the inner world and the importance of facts.

Group 3: Need for Achievement

The female Sensing type related very strongly to this motivation that involves the satisfaction of achievement and the proof that it can be done. This could be because a Sensing type needs to see practical and realistic applications.

Group 5: Influence of Others

The male Thinking type relates negatively in a strong way to this motivation perhaps in the sense that he would look more at the principles involved in an impersonal way.

Group 6: Understand People

The male Sensing type is negatively correlated in a strong way to the motivation of understanding family and people. Maybe this is due to their orientation to what is happening in the here and now and the preference for straight forward suggestions.

Group 7: Need Degree

The female Thinking type related strongly to the motivation of always wanting to have a degree, maybe because they favour putting things in

logical order. It is possible that the Thinking female would have planned her life in steps, putting off the getting of a degree until other needs were attended to.

Group 8: Personal Challenge

The Intuitive male correlated strongly with the motivation of studying for enjoyment, for obtaining more knowledge and for the intellectual challenge. This type enjoys a challenge and the learning of new skills which would bring many possibilities and interesting outcomes.

The Sensing male had a strong negative correlation with the motivation of a personal challenge, perhaps because of their preference for working things in logical steps, so that the degree would be seen as part of an ordered process with a particular outcome.

Group 11: New Job Needs

The male Extrovert correlated strongly with the motivation of needing a degree to change careers. This type enjoys variety and action and would need a job change if boredom set in or there weren't enough people around him.

Group 13: Self-image Needs

Female Introverts correlated negatively in a strong way to the barrier in

not enrolling earlier involving a poor self-image, possibly because they internalise ideas, preferring to think about ideas rather than share them.

Intuitive males related strongly to the barrier in the decision to study concerning self-image. This type enjoys theoretical aspects and general concepts, focusing on how things could be improved.

Group 14: Overloaded

Extrovert females related extremely strongly to the barrier of an early marriage, single parenting, parenting demands and the burden of too many other roles. This may be due to an impatience that things did not happen quickly enough in the order of their lives They may have had to put study off until the barriers were overcome.

Introvert females also correlated in an extremely strong way to the barrier of being over-loaded, possibly because of their focus on the inner world coupled with the fact that they often do not act.This would have the consequence of the idea of beginning study slipping into the future.

Intuitive males related strongly to the barrier of being overloaded. This could be to do with their capacity of taking on many projects.

Thinking males also correlated strongly to the over-loaded barrier, perhaps with respect to the fact that they like to be treated fairly.

Feeling males associated in a very strong manner to the barrier of being overloaded. This type can often be hypersensitive over emotional issues and are interested in how things affect people.

Perceptive males also related strongly to the barrier of being overloaded maybe because this type starts many projects and then has trouble finishing them.

Group 15: Support

The barrier in the decision not to enrol at an earlier date involving no support from family or friends or that there was inadequate child-care, was negatively supported in a strong way by Sensing, Thinking and Judging males. Sensing males are careful about facts which reflects on their responses. Thinking males seem not to be bothered by actions of others. Judging males prefer to run their own lives so in this case do not let others take the blame for a barrier in the decision not to enrol at an earlier time.

Group 16: Other Roles

This barrier in the decision not to enrol at an earlier time covered being too young to enrol, parenting demands, no support and too many other roles. Extrovert females correlated very strongly with this, with the inference that their enthusiasm and involvement with people and things has created so many roles that study was put off.

The Introvert female indicated a strong negative correlation with the barrier of other roles. this is possibly to do with the focus on internal things, a reluctance to share inner thoughts and the fact the demands of other roles meant putting off opportunities.

Group 17: New Life Roles

The Thinking female related strongly to the event enabling enrolment to do with children being old enough, a more settled life, good enough finances and to fill a gap. This may be due to the fact that the Thinking type would be following a logical and planned step in the life pattern.

The Judging female also correlated strongly with the enabling event of a new life role, perhaps with the idea of getting things settled and finished.

The Intuitive male showed a strong correlation with the concept of a new life role. A return to study could signify again the possibility of future challenges.

The Thinking male is strongly and negatively correlated with a new life role, probably because this concept does not fit the pattern that he has mapped out for himself.

The Feeling male correlates strongly with the enabling event of a new life role, maybe because there are no more people around to please so that he feels the time is appropriate for study.

Group 18: Use Time

The Sensing female is negatively and strongly connected with the enabling event of a diminished work load, and time to spend on herself. She would not view the opportunity of study as something to do in spare time but as a practical way of reaching a goal. The Thinking female would probably use her spare time in developing skills she has already, rather than using new ones.

Group 21: Specific Course

The Judging female correlates strongly and negatively with the enabling event of a specific course becoming available, because of the emphasis

she places on planning and following events. She is in control of events, rather than the other way around.

The Perceptive female relates very strongly to this enabling event that has caused her to enrol. She can adapt well to changing situations and does not mind leaving things open for last minute changes.

Group 22: Home Demands

The Feeling female relates strongly to the frustration of home demands, which includes difficulties balancing a home, family and study, tiredness, starting assignments and no time for rest and recreation. The Feeling female would experience difficulty with these things because of her need to be surrounded by harmony, her enjoyment in pleasing others before herself and an avoidance of telling people unpleasant things.

The Judging female is negatively and strongly correlated to the frustrations involved in home and study, as she will work to a set plan and schedule of work, making sure she is in control and that study and others are not in control of her.

The Perceptive female is very strongly correlated to the frustrations of home demands and study, possibly because she often leaves things until

the last minute, experiencing difficulties in starting and finishing. She works best under the pressures of a deadline so in effect can't avoid the frustrations of home demands.

The Extrovert male correlates strongly with the frustrations of home demands and study. He enjoys talking on the phone and being surrounded by people. His involvement with others and things would take up study time, hence the frustration experienced.

The Perceptive male also relates strongly to the frustrations involving home demands and study. The reasons for this would be similar to those frustrations experienced by the Perceptive female.

Group 23: Study skills

The Feeling female correlates strongly with frustrations involved in study skills. These involve difficulty with the terminology, trouble learning to write essays and the feeling of not working fast enough. This could be due to the fact that the Feeling female avoids telling others unpleasant things and would probably not easily tell her lecturer of her difficulties. As well she is influenced by other people which may explain why she feels she is not working as fast as others. She relates well to the personal touch so would probably have difficulty learning just from books.

Group 25: Isolation

The Feeling female is very strongly correlated with the frustrations involved with the loneliness of studying extramurally, being unable to talk to lecturers and just working from books. The reasons for these would be the same as for the frustrations outlined in study skill problems.

The Extrovert male relates strongly to the frustrations of the isolation in studying extramurally mostly in relation to the way he enjoys interacting with people in his working environment, preferring face-to-face situations rather than written ones.

The Judging male relates negatively in a strong way to the frustrations of isolation. He needs only the essentials to begin work and likes to be in control, setting and following his own plan. The structure and schedules necessary for extramural work will suit him very well.

The Perceptive male correlated strongly with the frustrations of isolation most likely because of the trouble he experiences in making decisions, feeling as if he never has enough information. As he is an information gatherer and welcomes new light on situations, he would experience the feeling of isolation in extramural study.

Group 26: Time/ Money

The Intuitive female correlates negatively and strongly with the frustration of financing study and getting time off work for on-campus courses. She has a way of focusing on how things can be improved, relying on imagination and insight.

The Sensing male also correlates negatively and strongly with frustrations of time and money. He does not see these as obstacles because he works realistically and practically in a step-by-step fashion with what is available to him.

The Judging male also relates strongly and negatively to the frustrations of financing study and getting time off work. Because of the orderly and planned way he conducts business it is possible that he would have planned a way to finance study and get time off work before it became a problem.

The Perceptive male correlates strongly to frustrations to do with time, money and study. This probably relates to the way he lets life happen, leaving things to the last minute and then dealing with the problems.

Group 27: Attitudes of Others

The Sensing male negatively and strongly correlated with the experiencing of negative attitudes of others. Olski (1980) notes that the

attitudes of family and friends are very often negative towards adults who want a degree, and that there is often scepticism from others that extramural study has not got the quality of internal study. The fact that thew Sensing male is upset by these attitudes makes sense in the light of the attention and care he places on facts and evidence, relying on direct experience to provide anecdotes.

The Intuitive male correlates strongly to the experiencing of negative attitudes of others. He may leap quickly to a conclusion, thus getting the facts wrong and becoming obsessed with unimportant details.

Group 28: Child Care

The Extrovert male correlates strongly with the frustrations involved in the difficulties involved in child-care and study because of the focus he has on his involvement with people and things.

The Sensing male relates negatively and strongly to frustrations of child-care and study. He would approach these problems in a practical way, facing any difficulties with realism in a step-by-step way.

The Intuitive male associates strongly with the frustrations of child-care and study. This could be due to the fact that the repetitive and sameness of domestic routines would thwart his enthusiasm for the novelty of learning new things.

The Thinking male and the Judging male both react strongly and negatively to the frustrations of child-care. The thinking Male does not need harmony in which to work and is capable of making impersonal decisions sometimes without paying attention to people's wishes. The Judging male, on the other hand will often continue work and not notice things that need to be done. Often he will expect others to follow through with his plans.

The Feeling male correlates strongly to the frustrations of child-care and study. He enjoys a harmonious atmosphere and will pay attention to setting that right before he settles to study. The Feeling male will empathise with others, showing compassion for their problems and disregard his own.

The Perceptive male also relates strongly to the frustrations of child-care and study. In order to avoid starting study, he may become involved in the situation around him and leave his study to the last moment.

Group 29: Timing

The Sensing female correlates very strongly with the frustrations of waiting a long time for assignments to come back and difficulties

involved with on-campus demands and job needs. She likes to work steadily and have a realistic idea of how long things take, coupled with sometimes seeing the future in negative terms.

The Thinking female also correlates strongly with timing frustrations. She likes to anticipate outcomes, having firm ideas about these and criticising where appropriate. An assignment which comes back late from marking will cause her to be frustrates as she likes to work in logical order.

The Judging female relates strongly to timing frustrations because she likes to get things settled and finished, scheduling study in order for each step to be done on time. She would need advance warning that the assignment was going to be late.

The Thinking male also has a strong association with the frustrations involved in timing. His reasons would be similar to the those experienced by the Thinking female.

Reasons For Studying Education Extramurally

The reasons that were given by respondents for their choice of education as a subject have been ordered in first and second choices. The percentages between age groups must be viewed with caution because of the low numbers who responded in the 19-29 age group and the 50+ age group. These would need further confirmation in another study.

For females and males, the most popular reason for studying education was for job security and relevance. This factor makes sense as a great proportion of respondents were teachers. The second choice of gaining a degree or qualification, was nominated by females. Three choices rated second for males - to gain a degree or qualification, as a promotion or job-related requirement, and for enjoyment, personal interest and as a cross-discipline paper. It appears that females are less interested than males in gaining a degree for promotion.

In the 19-29 age group, the most popular reason for studying education extramurally for females was to gain a degree or qualification, while for males in this age group, job requirement and career preparation were equal choices. As many respondents in this age group were students at Teachers College, it is surprising that females and males were not equal in their first choice. However, it must be remembered that the numbers in this age group were small. Second choice for females was as

preparation for a career, with second choice for males as personal interest, enjoyment and cross-discipline papers.

For females and males in the 30-49 age group, job security and relevance were chosen first. The females' second choice was for more knowledge and keeping up with educational trends, while the second choices for males equally was to gain a degree and for enjoyment, personal interest and cross discipline papers. It is interesting that most females in this age group do not study education as a fill-in paper or for personal interest, as do men. It could be supposed that women in this age group feel a need to keep up with educational trends, possibly as a way of gaining higher positions in Education in order to compete with men.

For females and males in the 50+ age group, job security and relevance was the first choice. For females the second choice was to gain a degree, while males rated this equally with career development, keeping up with more knowledge and educational trends and for enjoyment, personal interest and cross-paper discipline. It is to be remembered that numbers in this age group were small.

Original Motivations to Study Education Extramurally

Numbers of respondents who wrote open-endedly in Part 6 of the questionnaire are small in the 19-29 and 50+ age groups, so this must be taken into account when viewing the percentages.

The most popular original motivation for females to study education extramurally was to gain knowledge and for personal interest, while the second choice was career development. For males the most popular original motivation was to gain a degree, with career development as second choice. It appears that females do not begin study with the gaining of a degree as an original intent. Galliano and Gildea (1982) report however, that for both females and males, the major motivations in a return to study by adults were self-actualising and career-related goals.

For females in the 19-29 age group, the original motivation that was most strongly chosen was self-motivation and fulfilment, with second choices being to finish by a certain age, the rewards of study and for career development. For males in the 19-29 age group, first choice was the motivation of lack of self-confidence and for direction, with second choice being achieving a degree. These figures are difficult to comment on and would need further investigation.

Females in the 30-49 age group stated that gaining knowledge and personal interest was the original motivation for starting study, with achieving a degree and career development as second choices. This is confirmed in von Prümmer (1988), in her research on study motivation and long distance students. She found that the most relevant motivational factor in enrolling for women was the enjoyment of opening up new areas of knowledge. Males in the 30-49 age group indicated achieving a degree as their main motivation, with career development as their second choice. Again it would seem that females, unlike males, do not like to offer themselves to a three-year commitment. Sperling, (1991) comments in her study on mature women's access to education that for many mature women three years of study is often too large a commitment to make for reasons that are frequently out of their control, with regard to job, domestic and family demands.

In the 50+ age group, females rated equally the original motivations of self-motivation and fulfilment, more time and money or to fill a gap. Males of 50+ indicated the reason of achieving a degree as the main motivation, with financial rewards and lack of self-confidence or direction as second choice. With such small numbers in the 50+ age group, these reasons would need further study.

Changes in the Original Motivation to Study Education Extramurally

There is very little literature available which examines any changes in the original motivation to study extramurally. Rogers, (1979) notes that adult students are not at first aware of their reasons for studying, but these become mor clear after studying for a while. Tremaine and Owen (1984) state that women have many reasons for studying which relate to their circumstances and life-stage, with these changing throughout the time of study. Reehling, (1980) in her six-year longitudinal study, compared motivational changes of adult re-entry women, finding that self-improvement and intellectual stimulation as the original motivations, had changed to work and career-related reasons. Bewley (1979) hypothesised that "housewives" used the rationalisation of future job possibilities when they began extramural study, but later agree that their broader motivation is personal self-development. Over a decade later, replacing the term "housewives" with females, his hypothesis still appears to stand. However, this differs when broken out into age groups.

The present study found that the motivational change ranking highest among FEES was achieving a degree, with self-motivation and personal fulfilment as a close second choice. For males, the main motivational change was completing a degree (with an emphasis on the goal being in sight), with the rewards of study as second choice.

In the 19-29 age group, females indicated that their major motivational change was a loss in momentum and that personal circumstances had taken over. The second choices were equally self-motivation and fulfilment, achieving a degree, completing a second degree and financial rewards. For males in the 19-129 age group, the main motivational change was the completing or nearing the end of a degree, with improved self-confidence and a loss in momentum or the taking over of personal circumstances. Again, the numbers in this age group were small and need further study.

For females in the 30-49 age group, the main motivational change was towards achieving a degree with self-improvement as second choice. For males in the 30-49 age group, the major motivational change was nearing the end of a degree, with self-motivation and fulfilment, completing a second degree and rewards of study as second choice.

> " I initially began study to stimulate my brain as I lived in a small rural town. Now I'm looking forward to finishing this degree and starting my Masters."
>
> (Tina, 37)

> " When I first started, my main reasons for studying were to improve my prospects in the teaching profession but now I am near the end of the degree I might do another one."
>
> (Sam, 47)

In the 50+ age group, the most reported motivational change for females was self-motivation and fulfilment, with achieving a degree, job-related improvement and intellectual or self-challenge as second choices. In the 50+ age group for males, the most reported motivational change was rewards of study, with nearing end of degree, improved self-confidence and achieving as second choices. In the light of a small sample, the figures for this age group need to be confirmed.

Life Transitions Coinciding With the Decision to Study Education Extramurally

Literature suggests that certain factors influence females in enrolling at a later age, such as a non-emphasis on education in the family of origin, pregnancy, marriage or a shift. (Blaukopf, 1981; Kahnweiller and Johnson, 1980; Mohney and Anderson, 1988; Sperling, 1991) Blaukopf (1981) in a study concerning the impact of life-change events on women's decisions to return to college, found that a number of life-change events, either individually or in a series of concurrences, acted in a way that was considered a motivating factor for some women in the decision to return to study. These were viewed as positive growth experiences. This is confirmed by Hildreth, Dilworth-Anderson and Rabe (1983), who reported on women returning to study with the finding that although the women had attributed life-changes to the decision to return to study, these were viewed as positive growth

experiences. Aslanian and Brickell (1980) agree that adults often learn in order to cope with some change in their lives, and that learning can precede, accompany, or follow life transitions.

The present study sought to find out whether the same situation existed with FEES, and whether there were differences among the age groups. An interesting finding was that the females were much more inclined to write a narrative comment in the space provided in the questionnaire. The most reported life transition for females and males was starting work, promotion or a new job. Females reported the second choice as a shift or isolation, with males nominating what they termed a "mid-life crisis."

For females in the 19-29 age group, marriage breakdown, separation or divorce was the major life transition coinciding with a return to study, with start work, promotion or a new job as second choice. Males in the 19-29 age group stated that starting work, a promotion or a new job was their major life transition. It appears that marriage breakdown would occur at an earlier age than a decade ago, however it must be remembered that the sample was small, and the study would need to be replicated before any discussion could ensue.

The main life transition for women in the 30-49 age group was cited as start work, promotion or a new job, with a shift or isolation as second

choice. This could explode the myth of Massey extramural study as a "haven for mid-life divorced women." For males in the 39-49 age group, the main life transition was start work, promotion or a new job. Their second choice was "mid-life crisis". The choice of the term mid-life crisis was interesting and it could be posited that the males used the term as an umbrella for personal life transitions. McCrae and Costa (1982) found that most men never have a mid-life crisis, that a crisis can occur at any age and when it does, it is usually due to a long-standing emotional instability or neuroticism.

> "It coincided with me returning to a permanent teaching position. I found my knowledge of current educational trends needed updating."
>
> (Raewyn, 48)

> " I began studying when I became Deputy Principal to give me some status."
>
> (Andy, 44)

The 50+ age group for females nominated children leaving home or attending university as the main life transition, with start work, promotion or new job as their second choice. Males in the 50+ age group chose three transitions equally. These were start work, promotion or new job, illness; accident or death of someone close and a new relationship or marriage. It is tempting to mention "empty nest" or the rise in working-life age, but it is not possible with such a small sample.

It is clear then, that life events do interact with personal motivation and goals. There are many changes and role relationships in adult women's lives and there is little value in attempting to find a single trigger event. Events in women's lives need to be examined from the view of an over-all context and timing rather than in isolation. Bronfenbrenner (1979) points out the necessity to view human development from the concept of the developing person, the environment, and especially from the evolving interaction between the two. Blaukopf (1981) in her study of life events and females returning to study concludes that a schema of development goes on in women's lives and that a series of events rather than a single event occurring as part of an ongoing process, causes changes in perception.

Extramural Study and Reported Changes in Values

From the information gathered, the present study found that education extramural students, both male and female attributed the forming of new values in part to the interaction of motivations to begin study and life transitions. Results are noted from the age groups 19-29 and 50+ purely as a matter of interest and not as comparison groups because of the extremely small samples. Females noted that the main change in values was a growth in independence and individuation, with second choice as understanding the reactions and differences of others. Males reported their major change in values as being an understanding of the reactions and differences of others, with a better understanding of

education and teaching methods as second choice. It may be possible to say then that both females and males seek to achieve self-actualisation through the interaction of life-events, a decision to return to study and motivational reasons. Perhaps females view a return to study as a means of achieving self-actualisation through the development of a sense of identity, while males may view the return to study as a means of achieving self-actualisation through vocational success.

Females in the 19-29 age groups reported their main value change as directions for the future and a reassessment of life, with an increased sense of worth or gender as second choice. Males in the 19-29 age group noted that their main value change was shared between understanding the reactions and differences of others, and an better understanding of education and teaching methods. Second choice for males of this age group was shared among worth of research and disciplined thinking, open-mindedness, a strengthening of former beliefs, cultural sensitivity and the worth of education for social mobility.

For females aged 30-49, the main value change was independence and individuation, with understanding the reactions and differences of others as second choice. Males in the 30-49 age group indicated understanding the reactions and differences of others, with the second choice shared between worth of research and disciplined thinking, and increased worth of education and teaching methods.

> "My husband was absent for two years, which made study feasible. This caused me to look more closely at my career and to value it more, as a means of supporting my family."
>
> (Elizabeth, 42)
>
> "My cultural values changed as it coincided with a cross-cultural incident and friendship with someone of another culture."
>
> (James, 49)

Females aged 50-54 cited worth of self and gender as the main value change, with worth of education and teaching methods second. There was only one male in the 50+ age group who reported that understanding the reactions and differences of others was the main value change, followed by worth of education and teaching methods.

Value change then, in the context of this study was seen more greatly in terms of personal growth. Billington (1991) states that contrary to other literature on adult development (Loevinger, 1985), adults do experience personal growth at mid-life. In Billington's 1991 study on personal growth and adult learning, she found that students experienced growth only within an environment that was non-authoritarian, and which stressed mutual trust and respect, support and self-directed learning. Although the setting for the study was a non-traditional American College designed for adults who are continuing their jobs while learning in a one-to-one tutorial system, the system involved self-directed learning similar to Massey's extramural programme. However, Feuer

and Gerber (1988) argue that there is a consistent over-estimation of the adult learner's readiness to be self-directing. Der-Karabetian, Aghop and Best (1984) found that adult women studying Education have a sense of self-directedness and a strong internal drive for learning. This appears to be the case as found in the present study, but the matter requires further research.

Demographic Profile of FEES

Through the research involved in the present study, it becomes possible to create a reasonably accurate demographic and motivational profile of the female extramural student studying Education. The following description typifies a female extramural student of Education and may be useful to extramural educators and for further research.

She was born in New Zealand and is European. She is aged between 45 and 49, is married and has two children. She lives with her family in their own home, in the city of Auckland. Her father is dead and her mother is retired. She is employed as a teacher and earns between $30-40 000 a year. Her mother was educated to Secondary school level, working inside the home. Her father was educated to Secondary school level, working in a clerical or highly skilled occupation when she was a child. She obtained University Entrance and has been studying extramurally for up to five years. She has 15-20 papers. Her original motivation for studying Education was to gain knowledge and for

personal interest. This motivation changed to the achieving of a degree, coinciding with the life transition of starting work, being promoted or changing to a new job. Through a combination of these, she has experienced a change towards independence and individuation. She is very satisfied with her choice of Education as a subject and is satisfied with life in general. Her Myers-Briggs psychological type is ISTJ, which describes her as dependable and hard-working with a talent for organisation and accuracy.

Positive Effects of Study

Although the benefits of study were not identified by factor analysis (see Limitations of Study), a high number of respondents indicated that positive effects of study were very true. The three most highly rated positive effects for females were being proud of their success, using their own ideas and being more aware of others' perspectives. For males the three most highly rated effects were thinking more analytically, being proud of their success and being more aware of others' perspectives.

It is interesting to note the similarity of the positive effect of study for both females and males.

Chapter 7

CONCLUSION

The present study set out to explore some of the reasons why females participate in extramural education courses. To give depth to this study, males were studied alongside females as a comparison group, while excerpts were used from interviews and the questionnaire to give life and validation to the study. Adult development relating to the female learner was examined within the context of life-events and motivations, with findings being discussed in the light of current theory.

The present study sought to find answers to the reasons motivating FEES decision to return to study and to determine if in fact they differed from the motivations of MEES. The motivations of FEES were examined in order to discover whether they were related to personality types. Changes in the original motivation to study were explored with reference to the coinciding of life transitions and subsequent formation of new values.

It was expected that there would be a variety of different reasons why FEES began study and that they would differ from the motivations of MEES. What was not expected however, was the number of variations that exist between the 29 motivational scales or groups, and the

demographic variables. This illustrates the fact that what motivates FEES depends to a large extent on a variety of demographic factors as well as life-development events and psychological type. As FEES then do not represent a homogenous group, these findings will have practical implications for institutions offering extramural courses.

Gender

The demographic variable of gender was surprising in that males are much more inclined than females in the motivation of wanting to help their children more and to set an example. This is possibly a role model motivation, reflecting the dominance of a patriarchal society. The fact that females did not indicate this motivation as much as males, could mean the female encourages her children to value educational opportunities in other ways. The result indicating that females did not enrol at an earlier age because of parenting demands was to be expected, with women placing their decision to enrol within the context of other people's needs. This relates to the greater frustration women experienced with balancing job, study, child-care and home demands. Males were more motivated than females to the acquisition of more knowledge. Both females and males indicated putting off enrolling previously because of too many other roles. However a difference existed between those roles - females were affiliative-oriented while males were career-oriented. This is confirmed in an examination of the enabling events that led to study. Results showed that many more

females than males indicated that their children were old enough now, that their lives were more settled and that extramural study was convenient due to family circumstances.

Age

For the demographic variable of age, the present study concentrated on the age group 30-49 as numbers in the other samples were low. They have been reported in the discussion, but need further verifying. Females in the 30-49 age group indicated that their biggest frustration was trouble with finance and getting time off work to go to on-campus courses. This is unusual because most were teachers. It probably relates to the question grouping, with the strongest indication being for frustrations with finance. This would fit in with the way females fit study around the needs of the family. Males in the 30-49 age group indicated that the strong motivations for enrolling were career needs and to achieve a degree, which illustrates the career-oriented goals for men of this age. Often FEES have been labelled as "empty-nesters", women whose family responsibilities have eased off and who are now free to pursue their own interests. Yet in the present study, 20% of females were past the age of child-bearing. A larger study which encompasses other disciplines as well as Education is needed to confirm whether or not this is true.

Ethnicity

The demographic variable of ethnicity showed that a main motivation in enrolling for Maori and Polynesian females and male was to achieve within a career or for job promotion. Maori and Polynesian females indicated more than the other Groups the motivation to study because of the influence of others and in order to help them understand their children. This perhaps displays the more closely-woven family pattern in their cultures than in the other Groups. Both female and male Maori and Polynesian indicated the motivation of enrolling in order to achieve in their race. This could be a reflection of the low number of Maori and Polynesian in top education positions. Other universities in New Zealand would do well to follow the lead of Auckland University which is offering incentives for Maori to enrol in 1992.

Salary

Motivational reasons and the demographic variable of salary showed that females in the $20-40 000 salary bracket began study in order to earn more money and be financially independent. This may be due in part to the fact that this Group included those who were from single-parent families. Females in the $40 000+ salary range enrolled for the motivation of wanting to achieve in their job or gaining a promotion. This may indicate the need for women to compete with men in top educational positions.

Occupation

The demographic variable of occupation showed that the main motivation to study for the female Clerical/ highly skilled Group was to help their children with their education and to set a good example. Both the Low professional Group and the High professional group rated earning money and becoming independent as the major motivation in the return to study. These are interesting results as it could be expected that the Clerical/ skilled group would see the need for more money. Perhaps it can be argued that this Group realised the value of education later in life and want their children to maybe capitalise on an opportunity that was not available for the Group earlier in life. For the High and Low professional Groups the explanation might be that they are working for promotion within their profession. The Clerical/ highly skilled Group were frustrated more by communication problems with lecturers and the marking of assignments, probably due to an unfamiliarity with university systems.

Education of Parents

The demographic variable of parental education yielded some interesting results. Females of primary-educated mothers showed that their main motivations were the intellectual challenge and a new life role. These women were older and had less family responsibilities than other Groups. Barriers to an earlier enrolment were cited by this group as the poorness of the family, the non-recognition of the value of

education in the family and parenting demands. Females of primary-educated fathers also indicated that a main motivation in enrolling was the intellectual challenge, but also mentioned another motivation of wanting to earn more money, to be independent and for self-improvement. The same barriers were noted as for primary-educated mothers. It makes intuitive sense to reason that the daughter of a primary-educated father might receive parental messages about the importance of money for getting on in life, or for social mobility. Males of primary-educated fathers indicated that their main motivations for studying were the need for a degree in order for a career change and for status. This can be interpreted to mean that the son of a primary-educated father did not grow up viewing the importance of education. The change might come somewhere near the forties when males turn to education as a means of occupational success and for status.

Females of secondary-educated mothers cited their main motivation for beginning extramural study as needing a degree in order to change jobs or because of a career demand. It could be that the secondary-educated mother has lived through the growth in the value of education for females. The daughter might have picked up on educational opportunities that the mother missed, has established her place in the work-force, and is using education for better job opportunities. This is confirmed by the fact that the major frustration for the female of a secondary-educated mother is trouble with financing study.

A very interesting fact emerged for males of tertiary-educated mothers, who mentioned that the main barrier to enrolling earlier was self-image needs. As these males were younger, it was reflected that this may be a reaction following the wave of the women's movement or possibly a "nineties male" ability to express his self, however this needs further study. Females of tertiary-educated mothers, when compared with the other Groups reported least of all that they had difficulties with attending on-campus courses with children. This is probably due to the fact that these females were younger, thus not having children to worry about, or because their enrolment was part of a compulsory course at Teachers College.

Occupation of Parents when Respondent was a Child and Now

For the demographic variables of the occupation of the parents when the respondent was a child and at present, the females of the Skilled Group of mother as a child, showed that their main motivation for beginning study was the influence of others and in order to understand the development of their children. It appears that this Group was not aware of the value of education earlier in life and are catching up on the chances that were missed. This is borne out by the fact that this group mentioned their main barrier in not enrolling earlier was that the family was too poor and the value of education was not considered. Females of the Retired/ home group of mother as a child reported that

their major motivation was for something to do in their spare time, which indicates again that this Group also missed out on the value of education as a child. Males of the Skilled Group of mother as a child showed their main frustration being one of the demands of home conflicting with the demands of study - an interesting result because this was not so for females of this group. The females of the Clerical/ highly skilled father as a child, showed their main motivation as achieving and promotion within a career, with the implication of the importance of a job or career. For females of the Unskilled Group of father as a child however, the motivation is a new life role. This demonstrates that a parental message for these females is that careers and education for women come after the family has grown up. For the occupation of the mother now, males of the Clerical/ highly skilled Group showed more than the other Groups that they were not so frustrated by assignments coming back late or the difficulty of timing job and on-campus courses. This could be because this Group has learned coping strategies from their mothers to do with the combination of job and home demands.

Satisfaction with Life

The demographic variable of satisfied with life and the frustrations of study, shows that males who are not satisfied have experienced negative attitudes from others. It could be that family, friends and work mates are not aware of the value of education in its application to a career.

Vocational Training

The demographic variable of vocational training shows that High professional males were not as motivated to enrol in order to prove to themselves that it can be done, as any of the other Groups were. This would indicate that these males have already achieved, having had success in other areas.

Myers-Briggs Type Inventory

The analysis of percentages for the MBTI showed one type was predominant amongst females and males. This was the ISTJ type who is a painstaking, systematic and hard worker. They often move into management roles, which could be the reason for study for this type. Further research is warranted. The MBTI results showed that the psychological type ESTJ was less inclined than the other Groups to the motivation to study because of self-image needs. This makes sense because this type tends to be logical thinkers with a focus on facts, rather than the reasons that might be behind things. No Myers-Briggs temperament type was proved to be of significant value for the study. Motivations of FEES did prove to be related to some personality types.

The continuous scores for the MBTI clustered in various motivational reasons for study, barriers to and the enabling of enrolment and frustrations of study. These were as follows (the reasons why this could be are fully discussed in the previous chapter).

For female Extroverts, the strongest motivation was to help their children with their education and to set an example to them. Barriers to former enrolment were cited by Extrovert females as parenting demands and too many other roles. The Extrovert male displayed the major motivation to enrol as needing a degree for a new job, with the biggest frustrations being home demands, isolation and child-care problems.

Perceptive females' strongest motivation to study was to help their children and set an example, coupled with using spare time. A major frustration for this type was the difficulty of home demands and study. For the Perceptive male, the main motivation was the need for status, the main barrier was shown as parenting demands, the main enabling factor was time and money, with the main frustrations being home demands, isolation and child-care problems.

The Thinking female's motivation to study was the need for a degree, the enabling event was most commonly a new life role, and the biggest frustration was with getting assignments back late. The Thinking male had no common motivation, mentioning the barrier of parenting demands highly, along with the frustration at getting assignments back late.

The Judging female showed that the main enabling event was the chance of a new life role, with the main frustration being that of getting assignments back late.

The Feeling female showed no common motivation to study, but cited the frustrations of home demands and study, problems with study skills and the feeling of isolation. The Feeling male had no common motivation, but the biggest barrier to enrolling earlier was parenting demands. The biggest enabling event for Feeling males was the chance of a new life role, with child-care problems being the most cited frustration.

The Sensing female and the Intuitive female showed no common motivation, with the former citing the late arrival of assignments as the biggest frustration. Intuitive males showed the main motivations to study as the need for status and for a personal challenge, with the barrier to enrolling being self-image needs. This type stated that the main enabling event was a new life role, with the biggest frustration being the attitudes of others and child-care problems. The Introvert female and the Introvert male had no common motivation but the latter indicated that a barrier to former enrolment was parenting demands.

Within the data collected from the present study, it is fair to say there is room for much more extensive research into Myers-Briggs personality

type in relation to extramural study. Nevertheless, personality Type theory is proving to be an even more valuable framework for predicting and interpreting data on motivation, aptitude, achievement, communication styles and career patterns as recent research shows. (McCaulley, 1990; McCrae and Costa, 1989)

Reasons for Studying Education

Reasons for studying education showed that for both sexes in the 30-49 age group, job security and job relevance rated highest. As the greater part of the respondents were teachers, this is not surprising. The result displays for the age group, the importance of career advancement for both sexes.

Original Motivations to Study and Reported Changes

The original motivation to study results clearly show that for females this was to gain knowledge and for personal interest, while for males the original motivation was in order to gain a degree. This is perhaps an illustration of the multiple roles that women have in balancing study, home and family needs. The attaining of a degree is a clear commitment that women may feel they can not make. Males also have these demands, but to a lesser extent, because of the male's career orientation. With regard to the changes in motivation, females' main motivational change was towards attaining a degree, while for males, the main motivational change was to completing a degree. While this is

related to the original motivation, it was reported strongly by males that this was the motivational change. This could lead to the supposition that males perhaps also are not sure of their commitments and capabilities in the original decision to study. It is pertinent to look at the second highest motivational change reported by both sexes. For females this was to self-improvement and for males the change was to self-motivation. In the process of individuation it appears that females and males take different paths, influenced greatly by role expectations. The shift in emphasis for females from one of interpersonal relations towards mastery, self-confidence and an assertive stance seems to be the opposite for males, who have moved from an assertive stance towards increased emotional sensitivity. It is as if in the 30-49 age group, there seems to be an orientation towards a balance in which females and males explore new areas.

Life Transitions and the Decision to Study

The decision to study and the coinciding of a particular life transition was rated equally by females and males - that of starting work, promotion or a new job. Although life transitions are part of an on-going process and constantly interacting with personal motivation and goals, it is interesting to note that in the present study, females and males shared the same life transition. Perhaps this is a sign of a growing equity between the sexes, at least within education.

Formation of New Values

Both sexes also recognised the relationship between the formation of new values, the decision to begin study and the occurrence of a life transition. For females, the change in values was reported as a growth in independence and individuation, while for males, it was the better understanding of the reactions and differences of others.

The present study has shown that there are many and varied reasons underlying the decisions FEES make to begin study and that they very often differ from those of MEES. It has been found that particular motivations can be related to personality types and that one type (ESTJ) is predominant in Education both in females and males. It was also found that FEES motivations can change during the course of study and that they are different over the age groups. Finally the present study found there was a link between the decision to study, the occurrence of a life transition and the formation of new values. It is apparent that for women, the value of extramural study must be weighed against all the other aspects of her life that require an output of time, money and effort. The female extramural student needs to weigh the value of education against the value of all the other issues that are in her life at the time of the decision. Women are seemingly never disconnected from the importance of others, placing priority on considering their relationships when making a major decision such as the return to study. This has the effect of sequences in her life such as initial

study at university, marriage, children job, shift, extramural education and then a career. What motivates that decision is important for extramural educators with respect to the fact that processes throughout individuals' lives affect participation in education across the life span. This has become evident in the enormous recent growth in the area of adult development. There are very many motivations, but they must be viewed within the context of the individual's life and environment. The explanations for what humans do are to be found in interactions between characteristics of people and their environments in the past and present. According to Bronfenbrenner, (1979) "the main effects are in the interaction."

Major Pointers for Extramural Educators

1. The present study may assist those universities offering extramural study to develop and offer programmes to meet the needs of the returning female student, who represents an increasing percentage of the university population.

2. Further research may determine whether programmes with different philosophical orientations have different impacts on personality types.

3. A counselling system for extramural students may need to be developed at three levels. At the first level it would work to educate the faculty and administration as to the special problems of the returning student. The second level would work towards public or community education to alter the perception of individuals pursuing a return to

study, and thereby reducing stress produced by role-conflict. At the third level, a counselling system would work with the returning student to solve problems of personal adjustment.

4. Counsellors of extramural students would need to attend to the latter's career concerns, particularly for returning women, with the possibility of additional support in the form of a mentor. A concern for counsellors would be the recognition of the impact of role-conflict and role-overload that many returning women students experience as they attempt to balance the roles of student, mother, house and career person. Counsellors would also need to recognise that women will regard relationships as important factors to be considered in making personal decisions, as well as helping women to evaluate critically their commitments and balance among their roles. Another consideration for counsellors is that the circumstances of women's lives, society's low expectations of women which still exist, and the patriarchal social structure, often results in women's loss of confidence as public actors.

5. Narrative comments by respondents showed the need for a faster return of marked work, as well as a need for more individual feedback on performance in essays. There is value in extramural students maintaining supportive and personal relationships with members of staff, with a need for "dialogue". This may need to be in the form of personal tutorials as a compulsory part of on-campus courses. 6. There is a need to pay attention to individual tailoring of deadlines and course demands, and to initial discussions of educational backgrounds and

abilities, often very disparate, to provide the kind of guidance required to make extramural study a rewarding and inspiring experience and not just a mechanised process serving those few already adept at the art of learning.

7. There is a need for faculty and staff development that focuses on the needs, experiences and learning styles of adult learners, with a particular emphasis on the understanding of women's development.

8. There is a need for an awareness of the variances in age groups, personality types and between sexes in terms of the motivation to begin study, as well the need to know more specifically about the conditions under which it is most likely that adults would participate in (and drop out of) extramural study. Extramural educators could do well to look at the different dimensions of the MBTI with the help of resource people in order to better understand the full implications of personality differences and interactions evident both in students and staff.

9. There needs to be more changes in course content to include experiences of women as relevant bases of knowledge. Within the learning experience, women's experiences have an important part to play. By the incorporation of these experiences, higher education becomes not only directly apposite to women, but through the university experience, women's needs will necessarily be acknowledged and recorded as men's needs have in the past.

10. On-campus courses need to recognise more widely the value in the formation of adult groups and focused orientation programmes for the

informal sharing of educational and personal experiences. The realisation that a "fear of failure" reaction is typical in the decision to return to study might do much to alleviate attendant stress. Informal contact with staff and fellow students is minimal for extramurals. This is not the case for full-time students who have through interaction, a considerable amount of learning to handle ideas through debate and exchange of information.

11. Marketing efforts for extramural students should be carefully tailored with the motivational needs of various sub-groups of potential adult students in mind.

12. There is a need for an awareness in extramural education of the social context where social structures influence and act on people and the reverse, in an ecological frame-work.

The present study has explored the idea of work and career, as well as individuation, as a process of adult development and a progression of motivationally, socially and economically determined choices. This has important implications for discussions about the meaning of extramural education. For educators of extramural students then, it is as important to be interested not only in the motivation for beginning a course, but also for continuing in, and attending to the course. The frustrations that the respondents noted will be of use to educators of extramural students in order to maintain the motivation to study. It was apparent from the narrative comments on the motivation to study that respondents were

concerned with another meaning of motivation - the ability to attend. This combined with the high incidence of common frustrations mentioned by respondents seems to indicate a real need for counselling for personal, academic and goal-oriented concerns. The commitment and motivation of extramural educators must be very important factors in sustaining the commitment and motivation of extramural students. This has implications for further research - now that the motivations for enrolling in extramural courses have been clarified, perhaps it is now time to consider the upkeep and continuation of those motivations.

APPENDIX 1
INTERVIEW OF MOTIVATION

1. Time Interview started : | | | |

2. Address Digit : | | | |

3. Block Number : | | | |

Please tick the box with your age

19-24	25-29	30-34	35-39	40-44	45-49	50-54	55-60	60+

d) Marital Status : [nm : m : sep : div : d f] | |

e) Number of dependents : | | |

4. a) Occupation of father : | |

b) Education of father : P | | S | | T | |

c) Occupation of mother : | |

d) Education of mother : P | | S | | T | |

5. Academic Background :

6. Career Experience :

APPENDIX 1

7. MOTIVATIONS

Q.1 What made you decide to study extramurally?
Prompt: Why do you want a degree?
Prompt: How would that change your life?

Q.2 How many years have you been studying?

APPENDIX 1

Q.3 Why did you choose education?

Q4. What goals / aspirations are connected with your desire to study?

APPENDIX 1

Q.5 What frustrations have you met in the course of your study?
Prompt: Meeting deadlines.
Prompt: Finance
Prompt: Attitudes of family.
Prompt: Running home
Prompt: Sex-stereotyping.

MOTIVATION CHANGES / PERSONAL CHANGES

Q.6 Have your motivations to study changed since you started?
Prompt: If so, in what way?

APPENDIX 1

Q.7 Do you feel that you have changed as a person since you started studying extramurally?
Prompt: If so, in what way?

Q.8 Other topics discussed

APPENDIX 2

FEMALE / MALE EXTRAMURAL EDUCATION STUDENT

MOTIVATION QUESTIONNAIRE

Enter name and address ONLY if you require feedback.

1. | |
|---|
| |

2. Address Digit/Block No.					

3. **Personal Variables**

a) **Gender** Male / Female

b) **Age** - (Please tick the box with your age)

19-29	25-29	30-34	35-39	40-44	45-49	50-54	55-60	60+

c) **Salary** - (Please tick the box with your salary bracket)

0 - $10 000	10 - 20 000	20 - 30 000	30 - 40 000	40 +

d) **Marital Status** : nm : m : sep : div : d/f]
(nm = never married : m = married :
sep = separated : div = divorced : d/f = defacto)

e) **Number of dependents** :

f) **Country Born** :

g) **Ethnicity** : European ☐ Indian ☐
Maori ☐ Asian ☐
Pacific Is. ☐ Other ☐

h) **Occupation of father**
When you were a child

AND NOW

i) **Education of father** : P ☐ S ☐ T ☐
(P = Primary Schooling : S = Secondary : T = Tertiary)

j) **Occupation of mother**
When you were a child

AND NOW

k) **Education of mother** : P ☐ S ☐ T ☐
(P = Primary Schooling : S = Secondary : T = Tertiary)

APPENDIX 2

4. **Educational variables**

School Certificate ☐ Sixth Form Certificate ☐
University Entrance ☐ Bursary / Scholarship ☐

Vocational Training : ☐

University Unfinished degree (number of papers completed) ☐

Completed degree ☐ (e.g. B.A)_____

Total years tertiary study ☐

5. **Employment related variables**

a) unemployed seeking work ☐ d) home maker ☐
b) unemployed not seeking work ☐ e) occupation
c) employed ☐

_____

6. **Family and Home variables**

a) Benefit assistance ☐ b) with child in the home ☐
c) Rural / small town ☐ d) City / large town ☐
e) Superannuit ☐ f) Rent home ☐
g) Own home ☐ g) Boarding ☐

7. Briefly state up to three reasons why you are studying education:

8. How satisfied would you say you are with life in general?

extremely satisfied	very satisfied		somewhat satisfied	not satisfied
☐	☐	☐	☐	☐

9. How satisfied would you say you are with your choice of Education as a subject?

extremely satisfied	very satisfied		somewhat satisfied	not satisfied
☐	☐	☐	☐	☐

APPENDIX 2

QUESTIONNAIRE PART ONE

These questions aim to find out predisposing factors that helped to create or maintain motivation to enrol at Massey University.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		not true	somewhat true	very true
1.01	I want to improve my status in life	☐	☐	☐
1.02	I want to help my children with their education	☐	☐	☐
1.03	I want to set an example for my children	☐	☐	☐
1.04	I want to prove to myself that I can do it	☐	☐	☐
1.05	I want the satisfaction of achieving something	☐	☐	☐
1.06	I want to be more important	☐	☐	☐
1.07	I want to be respected by people	☐	☐	☐
1.08	I need to learn self discipline	☐	☐	☐
1.09	I want to earn more money	☐	☐	☐
1.10	I want to show that I can be independent	☐	☐	☐
1.11	I want to show that I can be financially independent	☐	☐	☐
1.12	I was influenced by my teacher	☐	☐	☐
1.13	I was influenced by my parents/ grandparents/children	☐	☐	☐
1.14	My brother / sister went to university	☐	☐	☐
1.15	I want to show that my race can achieve a higher degree	☐	☐	☐

APPENDIX 2

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		not true	somewhat true	very true
1.16	I have always wanted to do a degree/ diploma/certificate	☐	☐	☐
1.17	I want to understand my family	☐	☐	☐
1.18	I want to get my degree/diploma/certificate by a certain age	☐	☐	☐
1.20	I wanted to meet people	☐	☐	☐
1.21	I was bored with my life	☐	☐	☐
1.22	I want to understand / help people	☐	☐	☐
1.23	I find it is enjoyable / fun	☐	☐	☐
1.24	I want to obtain more knowledge	☐	☐	☐
1.25	I want/need the intellectual stimulation	☐	☐	☐
1.26	I want to understand how people learn	☐	☐	☐
1.27	I want to learn how to communicate on an intellectual level	☐	☐	☐
1.28	I want to improve my study habits	☐	☐	☐
1.29	I needed the personal growth	☐	☐	☐
1.30	I needed to improve myself	☐	☐	☐
1.31	I needed to improve my self-esteem	☐	☐	☐
1.32	I needed to have more confidence in myself	☐	☐	☐
1.33	I need to get over a salary bar to gain more money	☐	☐	☐
1.34	I need to show I am achieving within my career	☐	☐	☐
1.35	I need a degree to change my career	☐	☐	☐
1.36	I want the qualification for a second job	☐	☐	☐
1.37	I need it as part of my nursing training	☐	☐	☐
1.38	I need another/higher degree for a better job	☐	☐	☐
1.39	I want to get promoted within my job	☐	☐	☐

APPENDIX 2

QUESTIONNAIRE PART TWO

These questions deal with the barriers in your decision not to enrol at an earlier time.

HOW TRUE FOR YOU ARE THESE STATEMENTS CONCERNING BARRIERS TO PRIOR ENROLMENT?

		not true	somewhat true	very true
2.01	I had parenting demands	☐	☐	☐
2.02	I had an early marriage	☐	☐	☐
2.03	I had too many other roles	☐	☐	☐
2.04	The health of myself / family prevented me enrolling	☐	☐	☐
2.05	I had no support from family / partner	☐	☐	☐
2.06	I / partner had an early pregnancy	☐	☐	☐
2.07	Demands of single parenting prevented me enroling	☐	☐	☐
2.08	There was no "good" child care	☐	☐	☐
2.09	I had a poor self-image	☐	☐	☐
2.10	I was a victim of physical / emotional abuse	☐	☐	☐
2.11	I disliked school (no goal or dream)	☐	☐	☐
2.12	My family was too poor	☐	☐	☐
2.13	I had to get out of the house (pregnancy, marriage, army)	☐	☐	☐
2.14	My family did not see education as important	☐	☐	☐
2.15	There was no money for education	☐	☐	☐
2.16	I was unaware of available support	☐	☐	☐
2.17	I was too young to enrol	☐	☐	☐
2.17	No courses interested me then	☐	☐	☐
2.18	I have to study extramurally because I have a full time job	☐	☐	☐

APPENDIX 2

QUESTIONNAIRE PART THREE

These questions deal with those events that have occurred in your life that have enabled you to enrol.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		not true	somewhat true	very true
3.01	I wanted something to do in my spare time	☐	☐	☐
3.02	I wanted the time to spend on myself	☐	☐	☐
3.03	My children are old enough now	☐	☐	☐
3.04	My life is settled enough now	☐	☐	☐
3.05	My workload has diminished	☐	☐	☐
3.06	I wanted to study because my partner is studying	☐	☐	☐
3.07	My friends / parents / others urged me to enrol	☐	☐	☐
3.08	My job offered support (time, money, flexible scheduling)	☐	☐	☐
3.09	My finances are "good enough" now	☐	☐	☐
3.10	I received a study grant / assistance	☐	☐	☐
3.11	I became interested after I had attended courses in the community	☐	☐	☐
3.12	The course I wanted to take became available	☐	☐	☐
3.13	I have found extramural study convenient because of my family / job / commitment	☐	☐	☐
3.14	I anticipated having children and my study would help me understand their development	☐	☐	☐
3.15	I needed to compensate for a loss / gap in my life	☐	☐	☐
3.16	Study helped me find self-identity	☐	☐	☐

APPENDIX 2

QUESTIONNAIRE - PART 4

This section deals with the frustrations involved with studying extramurally.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		true true	true true	true true
4.01	I find the creche ineffective	☐	☐	☐
4.02	I have difficulty attending compulsory courses with children	☐	☐	☐
4.03	It has been hard to finance my study	☐	☐	☐
4.04	My study guides arrive too late	☐	☐	☐
4.05	I have experienced negative attitudes from others	☐	☐	☐
4.06	It has been difficult studying and running a home and family	☐	☐	☐
4.07	I have found the time-frames for assignments restrictive	☐	☐	☐
4.08	It is frustrating being unable to talk to tutors	☐	☐	☐
4.09	I have experienced sex-stereotyping	☐	☐	☐
4.10	I have experienced / noticed racial discrimination	☐	☐	☐
4.11	Sometimes my assignments take a long time to come back	☐	☐	☐
4.12	I have found the terminology difficult	☐	☐	☐
4.13	It has been difficult learning to write assignments	☐	☐	☐
4.14	It has been frustrating to work just from books	☐	☐	☐
4.15	Assignment evaluations have been unclear	☐	☐	☐
4.16	It is hard to get time off work for campus courses	☐	☐	☐
4.17	Enrolment forms have caused difficulty	☐	☐	☐
4.18	I have had trouble learning to write essays	☐	☐	☐
4.19	I find that tiredness holds me back	☐	☐	☐
4.20	I have difficulty balancing my home life and study	☐	☐	☐
4.21	It is frustrating not being able to devote enough time to study	☐	☐	☐

APPENDIX 2

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		not true	somewhat true	very true
4.22	I have found it is lonely studying extramurally	☐	☐	☐
4.23	It is difficult when you / your children get sick	☐	☐	☐
4.24	It is hard having no "instant" help	☐	☐	☐
4.25	I have little time for rest and recreation	☐	☐	☐
4.26	I have difficulty in getting started	☐	☐	☐
4.27	My partner / family feels left out	☐	☐	☐
4.28	I feel I don't work fast enough	☐	☐	☐
4.29	I feel guilty for not keeping up with my friends	☐	☐	☐
4.30	I have found there is poor communication in on-campus courses	☐	☐	☐
4.31	It is difficult when I travel to on-campus courses and begin / finish school next day	☐	☐	☐
4.32	I sometimes feel the marking is over-critical	☐	☐	☐
4.33	I would like more feedback from my lecturers	☐	☐	☐

APPENDIX 2

QUESTIONNAIRE - PART 5

This part deals with the positive effects of extramural study

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		not true	somewhat true	very true
5.01	I have gained confidence in "academic" conversations	☐	☐	☐
5.02	I have more self-esteem	☐	☐	☐
5.03	I have more self-assertion	☐	☐	☐
5.04	I can study more effectively	☐	☐	☐
5.05	I have learned to read in a more relevant way	☐	☐	☐
5.06	I am better organised	☐	☐	☐
5.07	I am more positive to others	☐	☐	☐
5.08	I tell others of the benefits of tertiary education	☐	☐	☐
5.09	I am more aware of others' perspectives	☐	☐	☐
5.10	I am more culturally aware	☐	☐	☐
5.11	I am more tolerant of others	☐	☐	☐
5.12	I am proud of my success	☐	☐	☐
5.13	I can cope with life's experiences better	☐	☐	☐
5.14	I am no longer over-awed by the university system	☐	☐	☐
5.15	I am using my own ideas now	☐	☐	☐
5.16	I can think more logically / analytically	☐	☐	☐
5.17	I find parenting easier	☐	☐	☐
5.18	I have become self-motivated	☐	☐	☐

APPENDIX 2

QUESTIONNAIRE PART 6

This section deals with changes in motivation to study and changes in values and directions.

6.01 Has your motivation to study changed since you first became an extramural student ? If so, then in what way ?

6.02 Did your decision to study extramurally coincide with a transition / crisis in your life? Did it cause you to form new values? If so, in what way?

APPENDIX 3

FEMALE / MALE EXTRAMURAL EDUCATION STUDENT
FREQUENCY OF RESPONSE TO QUESTIONS

QUESTIONNAIRE PART ONE

These questions aim to find out predisposing factors that helped to create or maintain motivation to enrol at Massey University.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

			not true	somewhat true	very true
1.01	I want to improve my status in life	F	13	39	46
		M	13	39	45
1.02	I want to help my children with their education	F	51	22	23
		M	33	21	45
1.03	I want to set an example for my children	F	35	30	32
		M	28	34	37
1.04	I want to prove to myself that I can do it	F	11	26	62
		M	12	34	53
1.05	I want the satisfaction of achieving something	F	3	28	67
		M	6	26	63
1.06	I want to be more important	F	53	36	9
		M	53	33	13
1.07	I want to be respected by people	F	30	53	15
		M	28	55	16
1.08	I need to learn self discipline	F	56	27	15
		M	42	38	17
1.09	I want to earn more money	F	26	40	32
		M	26	34	38
1.10	I want to show that I can be independent	F	36	34	28
		M	49	32	18
1.11	I want to show that I can be financially independent	F	45	34	19
		M	55	21	21
1.12	I was influenced by my teacher	F	80	12	6
		M	72	17	9
1.13	I was influenced by my parents/ grandparents/children	F	63	29	5
		M	61	30	8
1.14	My brother / sister went to university	F	74	11	13
		M	76	12	11
1.15	I want to show that my race can achieve a higher degree	F	90	2	5
		M	89	4	5

APPENDIX 3

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

			not true	somewhat true	very true
1.16	I have always wanted to do a degree/ diploma/certificate	F	23	35	39
		M	33	30	33
1.17	I want to understand my family	F	55	22	20
		M	61	24	12
1.18	I want to get my degree/diploma/ certificate by a certain age	M	41	29	29
		F	53	28	17
1.20	I wanted to meet people	F	62	30	6
		M	54	37	5
1.21	I was bored with my life	F	67	27	4
		M	71	18	7
1.22	I want to understand / help people	F	18	41	38
		M	24	41	32
1.23	I find it is enjoyable / fun	F	11	56	31
		M	13	64	18
1.24	I want to obtain more knowledge	F	1	19	28
		M	3	64	18
1.25	I want/need the intellectual stimulation	F	9	32	57
		M	12	49	36
1.26	I want to understand how people learn	F	11	47	40
		M	18	42	36
1.27	I want to learn how to communicate on an intellectual level	F	32	33	33
		M	28	49	20
1.28	I want to improve my study habits	F	34	44	20
		M	24	57	16
1.29	I needed the personal growth	F	21	33	44
		M	18	47	30
1.30	I needed to improve myself	F	33	38	27
		M	21	41	34
1.31	I needed to improve my self-esteem	F	38	36	23
		M	43	36	16
1.32	I needed to have more confidence in myself	F	37	34	27
		M	36	45	16
1.33	I need to get over a salary bar to gain more money	F	56	24	17
		M	57	16	24
1.34	I need to show I am achieving within my career	F	40	37	20
		M	28	46	22
1.35	I need a degree to change my career	F	53	29	16
		M	46	28	22
1.36	I want the qualification for a second job	F	83	11	4
		M	71	22	3
1.37	I need it as part of my nursing training	F	96	2	0
		M	95	1	0
1.38	I need another/higher degree for a better job	F	61	21	16
		M	50	29	16
1.39	I want to get promoted within my job	F	54	24	19
		M	37	30	29

APPENDIX 3

QUESTIONNAIRE PART TWO

These questions deal with the barriers in your decision not to enrol at an earlier time.

HOW TRUE FOR YOU ARE THESE STATEMENTS CONCERNING BARRIERS TO PRIOR ENROLMENT?

			not true	somewhat true	very true
2.01	I had parenting demands	F	45	17	35
		M	76	11	12
2.02	I had an early marriage	F	66	16	15
		M	83	12	4
2.03	I had too many other roles	F	41	24	31
		M	42	34	22
2.04	The health of myself / family prevented me enrolling	F	88	5	3
		M	92	5	1
2.05	I had no support from family / partner	F	69	15	13
		M	91	8	0
2.06	I / partner had an early pregnancy	F	84	4	9
		M	91	8	0
2.07	Demands of single parenting prevented me enrolling	F	89	2	5
		M	95	3	1
2.08	There was no "good" child care	F	93	4	0
		M	99	0	0
2.09	I had a poor self-image	F	73	18	5
		M	83	12	4
2.10	I was a victim of physical / emotional abuse	F	86	6	4
		M	95	3	1
2.11	I disliked school (no goal or dream)	F	83	7	6
		M	80	12	7
2.12	My family was too poor	F	73	16	2
		M	75	18	5
2.13	I had to get out of the house (pregnancy, marriage, army)	F	89	5	2
		M	92	5	1
2.14	My family did not see education as important	F	73	16	7
		M	84	12	3
2.15	There was no money for education	F	66	18	13
		M	70	22	7
2.16	I was unaware of available support	F	66	19	12
		M	76	17	5
2.17	I was too young to enrol	F	87	3	6
		M	88	4	5
2.17	No courses interested me then	F	87	3	6
		M	88	4	5
2.18	I have to study extramurally because I have a full-time job	F	23	14	55
		M	26	11	57

APPENDIX 3

QUESTIONNAIRE PART THREE

These questions deal with those events that have occurred in your life that have enabled you to enrol.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

			not true	somewhat true	very true
3.01	I wanted something to do in my spare time	F	47	40	11
		M	47	34	17
3.02	I wanted the time to spend on myself	F	47	34	17
		M	71	25	3
3.03	My children are old enough now	F	39	26	33
		M	70	18	11
3.04	My life is settled enough now	F	34	36	28
		M	47	38	13
3.05	My workload has diminished	F	71	19	7
		M	83	12	4
3.06	I wanted to study because my partner is studying	F	88	91	1
		M	86	13	0
3.07	My friends / parents / others urged me to enrol	F	64	27	7
		M	71	25	3
3.08	My job offered support (time, money, flexible scheduling)	F	59	24	15
		M	67	25	7
3.09	My finances are "good enough" now	F	38	37	22
		M	43	42	13
3.10	I received a study grant / assistance	F	83	3	12
		M	83	8	8
3.11	I became interested after I had attended courses in the community	F	81	11	6
		M	89	9	0
3.12	The course I wanted to take became available	F	77	16	5
		M	68	18	12
3.13	I have found extramural study convenient because of my family / job / commitment	F	11	28	60
		M	34	28	37
3.14	I anticipated having children and my study would help me understand their development	F	84	13	1
		M	87	12	0
3.15	I needed to compensate for a loss / gap in my life	F	68	22	7
		M	79	13	7
3.16	Study helped me find self-identity	F	46	32	20
		M	63	25	9

APPENDIX 3

QUESTIONNAIRE - PART 4

This section deals with the frustrations involved with studying extramurally.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

			not true	somewhat true	very true
4.01	I find the creche ineffective	F	94	3	1
		M	97	0	0
4.02	I have difficulty attending compulsory courses with children	F	76	16	6
		M	88	8	3
4.03	It has been hard to finance my study	F	55	29	14
		M	46	37	16
4.04	My study guides arrive too late	F	62	28	9
		M	74	21	4
4.05	I have experienced negative attitudes from others	F	79	17	2
		M	80	14	4
4.06	It has been difficult studying and running a home and family	F	26	40	31
		M	39	36	22
4.07	I have found the time-frames for assignments restrictive	F	41	47	10
		M	50	36	13
4.08	It is frustrating being unable to talk to tutors	F	30	43	26
		M	25	50	24
4.09	I have experienced sex-stereotyping	F	86	7	4
		M	88	4	7
4.10	I have experienced / noticed racial discrimination	F	95	3	0
		M	92	5	1
4.11	Sometimes my assignments take a long time to come back	F	39	38	20
		M	41	45	13
4.12	I have found the terminology difficult	F	55	33	10
		M	43	38	17
4.13	It has been difficult learning to write assignments	F	50	33	15
		M	39	45	14
4.14	It has been frustrating to work just from books	F	43	41	13
		M	39	39	20
4.15	Assignment evaluations have been unclear	F	66	24	7
		M	58	34	7
4.16	It is hard to get time off work for campus courses	F	76	13	10
		M	76	18	4
4.17	Enrolment forms have caused difficulty	F	80	16	2
		M	80	17	1
4.18	I have had trouble learning to write essays	F	57	23	16
		M	54	32	13
4.19	I find that tiredness holds me back	F	21	52	24
		M	30	41	28
4.20	I have difficulty balancing my home life and study	F	22	49	27
		M	29	37	33

APPENDIX 3

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

			not true	somewhat true	very true
4.21	It is frustrating not being able to devote enough time to study	F	13	51	34
		M	16	42	39
4.22	I have found it is lonely studying extramurally	F	38	38	21
		M	33	46	18
4.23	It is difficult when you / your children get sick	F	44	28	27
		M	55	24	18
4.24	It is hard having no "instant" help	F	31	37	30
		M	29	42	26
4.25	I have little time for rest and recreation	F	19	40	38
		M	36	32	30
4.26	I have difficulty in getting started	F	32	35	31
		M	24	38	36
4.27	My partner / family feels left out	F	72	15	11
		M	49	37	12
4.28	I feel I don't work fast enough	F	36	40	21
		M	25	46	26
4.29	I feel guilty for not keeping up with my friends	F	46	36	16
		M	61	25	12
4.30	I have found there is poor communication in on-campus courses	F	79	19	0
		M	83	13	1
4.31	It is difficult when I travel to on-campus courses and begin/finish school the next day	F	60	26	12
		M	63	22	12
4.32	I sometimes feel the marking is over-critical	F	60	31	7
		M	64	29	4
4.33	I would like more feedback from my lecturers	F	38	45	15
		M	37	45	16

APPENDIX 3

QUESTIONNAIRE - PART 5

This part deals with the positive effects of extramural study

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

			not true	somewhat true	very true
5.01	I have gained confidence in "academic" conversations	F	24	47	26
		M	22	50	26
5.02	I have more self-esteem	F	20	48	29
		M	32	47	20
5.03	I have more self-assertion	F	20	55	21
		M	37	46	16
5.04	I can study more effectively	F	17	54	27
		M	22	53	24
5.05	I have learned to read in a more relevant way	F	20	49	29
		M	28	49	22
5.06	I am better organised	F	29	46	22
		M	25	61	13
5.07	I am more positive to others	F	28	47	23
		M	34	51	13
5.08	I tell others of the benefits of tertiary education	F	19	37	41
		M	26	37	41
5.09	I am more aware of others' perspectives	F	14	41	43
		M	16	49	34
5.10	I am more culturally aware	F	23	35	38
		M	30	38	30
5.11	I am more tolerant of others	F	22	46	29
		M	32	45	22
5.12	I am proud of my success	F	6	45	47
		M	14	58	26
5.13	I can cope with life's experiences better	F	28	45	24
		M	33	47	17
5.14	I am no longer over-awed by the university system	F	21	34	41
		M	39	50	9
5.15	I am using my own ideas now	F	11	63	24
		M	18	58	22
5.16	I can think more logically/analytically	F	17	52	28
		M	14	53	32
5.17	I find parenting easier	F	63	27	7
		M	74	21	3
5.18	I have become self-motivated	F	26	47	24
		M	30	50	18

APPENDIX 4
Factor Analysis - Principal Components Analysis

Quest. No.	Motivation	FACTR 1	FACTR 2	FACTR 3	FACTR 4	FACTR 5	H^2
1.01	I want to improve my status in life	.69	.09	.16			.52
1.02	I want to help my children with their education	.12	.94	.05			.90
1.03	I want to set an example for my children	.14	.93	.12			.89
1.04	I want to prove to myself that I can do it	.14	.10	.90			.84
1.05	I want the satisfaction of achieving something	.13	.07	.91			.84
1.06	I want to be more important	.87	.03	.04			.77
1.07	I want to be respected by people	.76	.18	.06			.62
1.08	I need to learn self discipline	.41	.05	.07			.18
	PERCENT OF VARIANCE	34.8	17.7	16.9			
1.09	I want to earn more money	.67					.45
1.10	I want to show that I can be independent	.84					.70
1.11	I want to show that I can be financially independent	.81					.81
	PERCENT OF VARIANCE	65.3					
1.12	I was influenced by my teacher	.77					.60
1.13	I was influenced by my parents/ grandparents/children	.73					.53
1.14	My brother / sister went to university	.33					.11
1.15	I want to show that my race can achieve a higher degree	.80					.64
	PERCENT OF VARIANCE	46.9					
1.16	I have always wanted to do a degree/ diploma/certificate	.07	.77				.60
1.17	I want to understand my family	.69	-.02				.48
1.18	I want to get my degree/diploma/certificate by a certain age	.05	.79				.62
1.20	I wanted to meet people	.65	.20				.47
1.21	I was bored with my life	.30	-.28				.17
1.22	I want to understand / help people	.81	-.03				.66
	PERCENT OF VARIANCE	28.2	21.7				
1.23	I find it is enjoyable / fun	-.15	.73				.56
1.24	I want to obtain more knowledge	.19	.73				.57
1.25	I want/need the intellectual stimulation	.24	.61				.43
1.26	I want to understand how people learn	.28	.63				.48
1.27	I want to learn how to communicate on an intellectual level	.53	.60				.64
1.28	I want to improve my study habits	.56	.32				.41
1.29	I needed the personal growth	.65	.38				.57
1.30	I needed to improve myself	.82	.08				.67
1.31	I needed to improve my self-esteem	.84	.12				.72
1.32	I needed to have more confidence in myself	.82	.07				.68
	PERCENT OF VARIANCE	42.3	15.0				

APPENDIX 4
Factor Analysis - Principal Components Analysis - Page 2

Quest. No.	Motivation	FACTR 1	FACTR 2	FACTR 3	FACTR 4	FACTR 5	H^2
1.33	I need to get over a salary bar to gain more money	.76	.07				.58
1.34	I need to show I am achieving within my career	.81	.05				.66
1.35	I need a degree to change my career	.23	.76				.63
1.36	I want the qualification for a second job	-.02	.62				.38
1.37	I need it as part of my nursing training	-.02	.47				.22
1.38	I need another/higher degree for a better job	.24	.79				.67
1.39	I want to get promoted within my job	.78	.12				.62
		34.4	19.3				
2.01	I had parenting demands	.08	.20	.57	.22	.52	.69
2.02	I had an early marriage	.13	.12	.80	.00	.08	.68
2.03	I had too many other roles	.24	.17	.48	-.07	.50	.57
2.04	The health of myself / family prevented me enrolling	-.13	.71	.01	.32	.11	.63
2.05	I had no support from family / partner	.41	.41	.17	.44	.03	.57
2.06	I / partner had an early pregnancy	.05	.08	.85	-.09	.03	.73
2.07	Demands of single parenting prevented me enrolling	-.06	-.06	.69	.13	-.13	.52
2.08	There was no "good" child care	.00	.04	.02	.85	-.03	.72
2.09	I had a poor self-image	.35	.73	.06	-.25	.12	.74
2.10	I was a victim of physical /emotional abuse	.14	.84	.07	.12	.11	.75
2.11	I disliked school (no goal or dream)	.12	.61	.11	-.06	-.24	.46
2.12	My family was too poor	.89	-.03	-.02	.02	.12	.82
2.13	I had to get out of the house (pregnancy, marriage, army)	.63	.20	.12	.15	-.10	.49
2.14	My family did not see education as important	.60	.03	.04	.24	-.11	.43
2.15	There was no money for education	.87	.05	.09	.06	.06	.77
2.16	I was unaware of available support	.69	.45	-.00	.04	.05	.69
2.17	I was too young to enrol	.09	.05	.06	.04	-.76	.59
PERCENT OF VARIANCE		26.5	13.4	10.6	6.9	6.3	

APPENDIX 4
Factor Analysis - Principal Components Analysis

Quest. No.	Motivation	FACTR 1	FACTR 2	FACTR 3	FACTR 4	FACTR 5	H^2
3.01	I wanted something to do in my spare time	.09	.74	.09	-.07	-.20	.61
3.02	I wanted the time to spend on myself	.29	.67	.03	.04	.06	.54
3.03	My children are old enough now	.63	.39	-.06	.07	.08	.56
3.04	My life is settled enough now	.65	.29	-.23	.23	.10	.62
3.05	My workload has diminished	.14	.58	-.17	-.07	.43	.58
3.06	I wanted to study because my partner is studying	.14	-.21	.60	-.10	.08	.44
3.07	My friends / parents / others urged me to enrol	.15	.05	.69	.11	.26	.57
3.08	My job offered support (time, money, flexible scheduling)	.29	.03	.05	.69	.01	.56
3.09	My finances are "good enough" now	.62	-.02	.03	.48	-.00	.61
3.10	I received a study grant / assistance	.11	-.10	-.03	.70	.22	.56
3.11	I became interested after I had attended courses in the community	.23	-.04	.12	.07	.76	.65
3.12	The course I wanted to take became available	.38	-.05	.24	.18	.51	.50
3.13	I have found extramural study convenient because of my family / job / commitment	.15	.46	.16	.48	-.24	.55
3.14	I anticipated having children and my study would help me understand their development	.15	.29	.66	.09	-.12	.57
3.15	I needed to compensate for a loss / gap in my life	.59	.23	.25	-.19	.08	.51
3.16	Study helped me find self-identity	.72	.03	.33	.15	-.02	.65
	PERCENT OF VARIANCE	22.1	11.0	9.3	7.2	7.0	

APPENDIX 4
Factor Analysis - Principal Components Analysis

Quest. No.	Motivation	FACTR 1	FACTR 2	FACTR 3	FACTR 4	FACTR 5	FACTR 6	FACTR 7	FACTR 8	FACTR 9	FACTR 10	H^2
4.01	I find the creche ineffective	-.08	.18	.01	.01	-.20	-.05	.69	.05	-.11	.15	.59
4.02	I have difficulty attending compulsory courses with children	.13	.01	-.01	-.04	.45	-.04	.73	.05	-.04	.03	.76
4.03	It has been hard to finance my study	.07	.15	.04	.09	.65	.16	.04	.21	.13	.19	.58
4.04	My study guides arrive too late	.08	.03	.20	.04	.07	.14	.14	.09	-.01	.85	.83
4.05	I have experienced negative attitudes from others	.11	.20	.30	.08	.33	.68	-.07	-.04	-.02	-.10	.74
4.06	It has been difficult studying and running a home and family	.60	.14	-.04	.05	.36	.05	.27	.04	.16	.02	.61
4.07	I have found the time-frames for assignments restrictive	.36	.13	-.12	.17	.13	.41	-.10	.16	-.33	.16	.55
4.08	It is frustrating being unable to talk to tutors	.01	.11	-.08	.78	.26	.07	.05	.18	-.01	-.03	.74
4.09	I have experienced sex-stereotyping	.05	.01	.04	.02	.03	.82	.06	.06	.19	.14	.74
4.10	I have experienced / noticed racial discrimination	.07	.03	-.09	-.06	.04	.24	-.07	.09	.81	-.10	.75
4.11	Sometimes my assignments take a long time to come back	-.20	.11	.18	.15	.12	.04	-.03	.65	-.10	.24	.61
4.12	I have found the terminology difficult	.08	.63	.07	.20	.05	.09	.01	.28	.00	.00	.55
4.13	It has been difficult learning to write assignments	.17	.83	.21	.16	.01	.11	.11	-.05	-.04	-.05	.81
4.14	It has been frustrating to work just from books	.15	.46	.21	.52	-.13	.01	-.00	.04	.06	-.01	.57
4.15	Assignment evaluations have been unclear	.08	.15	.68	.14	.08	.07	-.11	.29	-.02	.16	.64
4.16	It is hard to get time off work for campus courses	.32	-.20	.06	.10	.59	.08	.06	-.15	.02	-.02	.53

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APPENDIX 4
Factor Analysis - Principal Components Analysis

Quest. No.	Motivation	FACTR 1	FACTR 2	FACTR 3	FACTR 4	FACTR 5	FACTR 6	FACTR 7	FACTR 8	FACTR 9	FACTR 10	H^2
4.17	Enrolment forms have caused difficulty	-.01	.05	.13	.20	.14	-.15	-.07	-.13	.63	.47	.74
4.18	I have had trouble learning to write essays	.15	.84	.14	.09	-.03	.04	.16	-.01	.05	.06	.79
4.19	I find that tiredness holds me back	.77	.17	.03	.08	.06	-.11	.07	.11	.04	-.04	.67
4.20	I have difficulty balancing my home life and study	.74	.14	.09	.18	.23	-.04	.01	-.06	.08	-.12	.68
4.21	It is frustrating not being able to devote enough time to study	.74	.15	-.00	.13	-.03	.12	.04	-.02	.05	.07	.61
4.22	I have found it is lonely studying extramurally	.26	.19	.19	.67	.02	-.01	-.05	-.05	-.03	.10	.61
4.23	It is difficult when you / your children get sick	.50	.02	.17	.23	.08	.23	.55	.03	.14	-.15	.73
4.24	It is hard having no "instant" help	.26	.11	.25	.73	-.02	.09	.09	.08	.05	.07	.70
4.25	I have little time for rest and recreation	.69	-.10	.23	.06	.11	.20	-.00	-.01	-.08	.15	.63
4.26	I have difficulty in getting started	.53	.30	-.06	.35	.01	.02	-.08	.06	-.13	.06	.53
4.27	My partner / family feels left out	.41	.13	.22	-.03	.46	.25	-.11	.03	-.16	-.10	.55
4.28	I feel I don't work fast enough	.41	.54	-.01	.11	.29	-.07	-.13	.06	.02	.11	.59
4.29	I feel guilty for not keeping up with my friends	.49	.11	.45	-.01	.01	.15	-.08	.07	-.13	.05	.51
4.30	I have found there is poor communication in on-campus courses	.02	.06	.75	.15	-.02	.00	.16	-.13	.08	.06	.64
4.31	It is difficult when I travel to on-campus courses and begin / finish school next day	.33	.01	.17	.02	-.10	.07	.18	.67	.13	-.12	.67
4.32	I sometimes feel the marking is over-critical	.13	.19	.64	-.00	.06	.18	.04	.31	-.04	.13	.61
4.33	I would like more feedback from my lecturers	.01	.20	.54	.30	.21	-.11	-.05	.45	-.01	-.15	.70
	PERCENT OF VARIANCE	23.0	8.2	6.3	4.8	4.7	4.4	3.9	3.5	3.3	3.1	

APPENDIX 4
Factor Analysis - Principal Components Analysis

Quest. No.	Motivation	FACTR 1	FACTR 2	FACTR 3	H^2
5.01	I have gained confidence in "academic" conversations	.57	.42	.21	.54
5.02	I have more self-esteem	.43	.29	.70	.77
5.03	I have more self-assertion	.43	.48	.42	.59
5.04	I can study more effectively	.74	.23	.20	.64
5.05	I have learned to read in a more relevant way	.77	.23	.15	.67
5.06	I am better organised	.66	.28	.28	.60
5.07	I am more positive to others	.40	.67	.20	.64
5.08	I tell others of the benefits of tertiary education	.48	.56	-.05	.55
5.09	I am more aware of others' perspectives	.45	.71	.03	.70
5.10	I am more culturally aware	.18	.73	.28	.65
5.11	I am more tolerant of others	.17	.80	.29	.75
5.12	I am proud of my success	.31	.52	.28	.45
5.13	I can cope with life's experiences better	.22	.45	.71	.76
5.14	I am no longer over-awed by the university system	.61	.17	.27	.48
5.15	I am using my own ideas now	.68	.30	.11	.56
5.16	I can think more logically / analytically	.67	.34	.23	.61
5.17	I find parenting easier	.02	.15	.86	.76
5.18	I have become self-motivated	.44	.04	.76	.77
	PERCENT OF VARIANCE	48.8	8.6	6.3	

APPENDIX 5

FACTOR ANALYSIS-MODIFIED QUESTIONNAIRE
QUESTIONNAIRE PART ONE

These questions aim to find out predisposing factors that helped to create or maintain motivation to enrol at Massey University.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		not true	somewhat true	very true
GROUP 1 NEED MORE STATUS				
1.01	I want to improve my status in life	☐	☐	☐
1.06	I want to be more important	☐	☐	☐
1.07	I want to be respected by people	☐	☐	☐
1.08	I need to learn self discipline	☐	☐	☐
GROUP 2 HELP MY CHILDREN				
1.02	I want to help my children with their education	☐	☐	☐
1.03	I want to set an example for my children	☐	☐	☐
GROUP 3 NEED FOR ACHIEVEMENT				
1.04	I want to prove to myself that I can do it	☐	☐	☐
1.05	I want the satisfaction of achieving something	☐	☐	☐
GROUP 4 NEED FOR MONEY				
1.09	I want to earn more money	☐	☐	☐
1.10	I want to show that I can be independent	☐	☐	☐
1.11	I want to show that I can be financially independent	☐	☐	☐
GROUP 5 INFLUENCES OF OTHERS				
1.12	I was influenced by my teacher	☐	☐	☐
1.13	I was influenced by my parents/ grandparents/children	☐	☐	☐
1.15	I want to show that my race can achieve a higher degree	☐	☐	☐
GROUP 6 UNDERSTAND PEOPLE				
1.17	I want to understand my family	☐	☐	☐
1.20	I wanted to meet people	☐	☐	☐
1.22	I want to understand / help people	☐	☐	☐

APPENDIX 5

		not true	somewhat true	very true
GROUP 7 NEED DEGREE				
1.16	I have always wanted to do a degree/ diploma/certificate	☐	☐	☐
1.18	I want to get my degree/diploma/certificate by a certain age	☐	☐	☐
GROUP 8 PERSONAL CHALLENGE				
1.23	I find it is enjoyable / fun	☐	☐	☐
1.24	I want to obtain more knowledge	☐	☐	☐
1.25	I want/need the intellectual stimulation	☐	☐	☐
1.26	I want to understand how people learn	☐	☐	☐
1.27	I want to learn how to communicate on an intellectual level	☐	☐	☐
GROUP 9 SELF IMPROVEMENT				
1.27	I want to learn how to communicate on an intellectual level	☐	☐	☐
1.28	I want to improve my study habits	☐	☐	☐
1.29	I needed the personal growth	☐	☐	☐
1.30	I needed to improve myself	☐	☐	☐
1.31	I needed to improve my self-esteem	☐	☐	☐
1.32	I needed to have more confidence in myself	☐	☐	☐
GROUP 10 SAME JOB NEEDS				
1.33	I need to get over a salary bar to gain more money	☐	☐	☐
1.34	I need to show I am achieving within my career	☐	☐	☐
1.39	I want to get promoted within my job	☐	☐	☐
GROUP 11 NEW JOB NEEDS				
1.35	I need a degree to change my career	☐	☐	☐
1.36	I want the qualification for a second job	☐	☐	☐
1.37	I need it as part of my nursing training	☐	☐	☐
1.38	I need another/higher degree for a better job	☐	☐	☐

APPENDIX 5

QUESTIONNAIRE PART TWO

These questions deal with the barriers in your decision not to enrol at an earlier time.

HOW TRUE FOR YOU ARE THESE STATEMENTS CONCERNING BARRIERS TO PRIOR ENROLMENT?

		not true	somewhat true	very true
GROUP 12 NO RESOURCES				
2.12	My family was too poor	☐	☐	☐
2.13	I had to get out of the house (pregnancy, marriage, army)	☐	☐	☐
2.14	My family did not see education as important	☐	☐	☐
2.15	There was no money for education	☐	☐	☐
2.16	I was unaware of available support	☐	☐	☐
GROUP 13 SELF IMAGE NEEDS				
2.04	The health of myself / family prevented me enrolling	☐	☐	☐
2.09	I had a poor self-image	☐	☐	☐
2.10	I was a victim of physical / emotional abuse	☐	☐	☐
2.11	I disliked school (no goal or dream)	☐	☐	☐
GROUP 14 OVER LOADED				
2.02	I had an early marriage	☐	☐	☐
2.06	I / partner had an early pregnancy	☐	☐	☐
2.07	Demands of single parenting prevented me enrolling	☐	☐	☐
2.01	I had parenting demands	☐	☐	☐
2.03	I had too many other roles	☐	☐	☐
GROUP 15 SUPPORT				
2.05	I had no support from family / partner	☐	☐	☐
2.08	There was no "good" child care	☐	☐	☐
GROUP 16 OTHER ROLES				
2.17	I was too young to enrol	☐	☐	☐
2.01	I had parenting demands	☐	☐	☐
2.03	I had too many other roles	☐	☐	☐
2.05	I had no support from family / partner	☐	☐	☐

APPENDIX 5

QUESTIONNAIRE PART THREE

These questions deal with those events that have occurred in your life that have enabled you to enrol.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		not true	somewhat true	very true
GROUP 17 NEW LIFE ROLE				
3.03	My children are old enough now	☐	☐	☐
3.04	My life is settled enough now	☐	☐	☐
3.09	My finances are "good enough" now	☐	☐	☐
3.15	I needed to compensate for a loss / gap in my life	☐	☐	☐
3.16	Study helped me find self-identity	☐	☐	☐
GROUP 18 USE TIME				
3.01	I wanted something to do in my spare time	☐	☐	☐
3.02	I wanted the time to spend on myself	☐	☐	☐
3.05	My workload has diminished	☐	☐	☐
3.13	I have found extramural study convenient because of my family / job / commitment	☐	☐	☐
GROUP 19 FOLLOW OTHERS				
3.06	I wanted to study because my partner is studying	☐	☐	☐
3.07	My friends / parents / others urged me to enrol	☐	☐	☐
3.14	I anticipated having children and my study would help me understand their development	☐	☐	☐
GROUP 20 CONVENIENCE				
3.08	My job offered support (time, money, flexible scheduling)	☐	☐	☐
3.10	I received a study grant / assistance	☐	☐	☐
3.13	I have found extramural study convenient because of my family / job / commitment	☐	☐	☐
GROUP 21 SPECIFIC COURSE				
3.11	I became interested after I had attended courses in the community	☐	☐	☐
3.12	The course I wanted to take became available	☐	☐	☐

APPENDIX 5

QUESTIONNAIRE - PART 4

This section deals with the frustrations involved with studying extramurally.

HOW TRUE ARE THE FOLLOWING STATEMENTS FOR YOU?

		not true	somewhat true	very true
GROUP 22 HOME DEMANDS				
4.06	It has been difficult studying and running a home and family	☐	☐	☐
4.19	I find that tiredness holds me back	☐	☐	☐
4.20	I have difficulty balancing my home life and study	☐	☐	☐
4.21	It is frustrating not being able to devote enough time to study	☐	☐	☐
4.23	It is difficult when you / your children	☐	☐	☐
4.25	I have little time for rest and recreation	☐	☐	☐
4.26	I have difficulty in getting started	☐	☐	☐
4.29	I feel guilty for not keeping up with my friends	☐	☐	☐
GROUP 23 STUDY SKILL				
4.12	I have found the terminology difficult	☐	☐	☐
1.13	I was influenced by my parents/ grandparents/children	☐	☐	☐
4.18	I have had trouble learning to write essays	☐	☐	☐
4.28	I feel I don't work fast enough	☐	☐	☐
GROUP 24 ACADEMIC COMMUNICATION				
4.15	Assignment evaluations have been unclear	☐	☐	☐
4.30	I have found there is poor communication in on-campus courses	☐	☐	☐
4.32	I sometimes feel the marking is over-critical	☐	☐	☐
4.33	I would like more feedback from my lecturers	☐	☐	☐

APPENDIX 5

		not true	somewhat true	very true
GROUP 25 ISOLATION				
4.08	It is frustrating being unable to talk to tutors	☐	☐	☐
4.14	It has been frustrating to work just from books	☐	☐	☐
4.22	I have found it is lonely studying extramurally	☐	☐	☐
4.24	It is hard having no "instant" help	☐	☐	☐
GROUP 26 TIME / MONEY				
4.03	It has been hard to finance my study	☐	☐	☐
4.16	It is hard to get time off work for campus courses	☐	☐	☐
GROUP 27 OTHERS' ATTITUDES				
4.05	I have experienced negative attitudes from others	☐	☐	☐
4.09	I have experienced sex-stereotyping	☐	☐	☐
GROUP 28 CHILD CARE				
4.01	I find the creche ineffective	☐	☐	☐
4.02	I have difficulty attending compulsory courses with children	☐	☐	☐
4.23	It is difficult when you / your children get sick	☐	☐	☐
GROUP 29 TIMING				
4.11	Sometimes my assignments take a long time to come back	☐	☐	☐
4.31	It is difficult when I travel to on-campus courses and begin / finish school next day	☐	☐	☐
4.33	I would like more feedback from my lecturers	☐	☐	☐
GROUP 30 CULTURE INSENSITIVITY				
4.10	I have experienced / noticed racial discrimination	☐	☐	☐
4.17	Enrolment forms have caused difficulty	☐	☐	☐
GROUP 31 FORM FILLING				
4.17	Enrolment forms have caused difficulty	☐	☐	☐
1.04	I want to prove to myself that I can do it	☐	☐	☐

APPENDIX 6
LABELS FOR DEMOGRAPHIC ITEMS OF QUESTIONNAIRE

ZONES IN NEW ZEALAND		MARITAL STATUS	
1	West Coast	1	Not married
2	Invercargill	2	Married
3	Christchurch	3	Separated
4	Central New Zealand	4	Divorced
5	Taranaki	5	De Facto
6	Central North Island	6	Widow/er
7	Tauranga/Coromandel		
8	Northland		
9	Auckland		
GENDER		NUMBER OF CHILDREN	
1	Male	1	No Children
2	Female	2	1 Child
		3	2 Children
		4	3 Children
		5	4 Children
		6	5 Children
		7	6 Children
		8	7 Children
		9	8 Children
		10	9 OR More children
AGE GROUPS		COUNTRY OF ORIGIN	
1	19-24	1	New Zealand
2	25-29	2	Sth Africa
3	30-34	3	Canada
4	35-39	4	U.S.A
5	40-44	5	England
6	45-49	6	Denmark
7	50-54	7	United Kingdom
8	55-60	8	Ireland
9	60+	9	Netherlands
		10	Australia
YEARLY WAGES / SALARY		ETHNICITY	
1	0 - $10 000	1	European
2	10 - 20 000	2	Maori
3	20 - 30 000	3	Pacific Island
4	30 - 40 000	4	Indian
5	40+	5	Asian
		6	Other

APPENDIX 6
LABELS FOR DEMOGRAPHIC ITEMS OF QUESTIONNAIRE continued

MODIFIED ELLEY-IRVING INDEX OF SOCIO-ECONOMIC STATUS OF OCCUPATION 1 High Professional 2 Low Professional 3 Clerical/Highly Skilled 4 Skilled Work 5 Semi-skilled Work 6 Unskilled/Repetitive Work 7 Retired 8 Dead 9 Home	YEARS STUDYING 0 - 5 years 6 - 10 years 11 - 15 years 16 - 20 years
EDUCATION OF PARENTS 1 Primary Schooling 2 Secondary Schooling 3 Tertiary Education	FAMILY AND HOME 1 Unemployed seeking work 2 Unemployed NOT seeking work 3 Employed 4 Homemaker 5 Benefit assistance 6 Superannuit 7 Own Home 8 Child/ren in home 9 Rent Home 10 Boarding 11 Rural / small town 12 City / large town
EDUCATIONAL VARIABLES 1 School Certificate 2 Sixth Form Certificate 3 University Entrance 4 Bursary / Scholarship	SATISFACTION WITH LIFE / EDUCATION 1 extremely satisfied 2 very satisfied 3 satisfied 4 somewhat satisfied 5 not satisfied
NUMBER OF PAPERS COMPLETED 1 0 - 7 papers 2 8 - 14 papers 3 15 - 20 papers 4 Completed Degree 5 Degree Incomplete	LIKERT SCALE FOR QUESTIONNAIRE 1 not true 2 somewhat true 3 very true

APPENDIX 6
LABELS FOR DEMOGRAPHIC ITEMS OF QUESTIONNAIRE

MYERS-BRIGGS PERSONALITY TYPES		LABELS FOR REASONS WHY RESPONDENTS ARE STUDYING EDUCATION	
1	ESTJ	1	Career preparation/development
2	ENTJ	2	More knowledge/educational trends
3	ISTP	3	Job security/relevance
4	INTP	4	Job/Degree requirement/promotion
5	ESFJ	5	Gain degree/qualification
6	ENFJ	6	Influence of/keep abreast of others
7	ISFP	7	Intellectual stimulation/personal challenge
8	INFP	8	Financial reward
9	ESTP	9	Self improvement/fulfilment
10	ESFP	10	Cross-discipline relevance
11	ISTJ	11	Understanding people/life/family
12	ISFJ	12	Time/money/fill gap
13	ENTP	13	Fill-in papers/enjoyment/personal interest
14	ENFP	14	Future opportunities
15	INTJ	15	Role model
16	INFJ		
MYERS-BRIGGS TEMPERAMENT TYPES		REASONS GIVEN FOR STUDYING EDUCATION	
1	NF	1	Career preparation/development
2	NT	2	More knowledge/educational trends
3	SJ	3	Job security/relevance
4	SP	4	Job/Degree requirement/promotion
		5	Gain degree/qualification
		6	Influence of/keep abreast of others
		7	Intellectual stimulation/personal challenge
		8	Financial reward
		9	Self improvement/fulfilment
		10	Cross-discipline papers /enjoyment/ personal interest
		11	Future opportunities
		12	Role model

APPENDIX 6

LABELS FOR DEMOGRAPHIC ITEMS OF QUESTIONNAIRE

	LABELS FOR CHANGES IN VALUES AS REPORTED BY FEES AND MEES		LABELS FOR DECISIONS THAT COINCIDED WITH A TRANSITION / CRISIS IN RESPONDENTS LIFE
1	Worth of career	1	Start work/promotion/new job
2	Independence / individuation	2	Spouse absent
3	Directions for future / life reassessment	3	Restart after overseas travel
4	Job accountability	4	Marriage breakdown/separation/divorce
5	Changed philosophy of education	5	Study award
6	Worth of relationships	6	Emigration
7	Understanding actions / differences of others	7	Child starting school/children older
8	Worth of research / disciplined thinking	8	Shift / Isolation
9	Open-mindedness	9	Illness/accident/death
10	Worth of education / teaching methods	10	Career choice over marriage
11	Strengthen beliefs	11	Child as pre-schooler
12	Worth of self / gender	12	Children at University/leave home
13	Worth of health / happiness	13	Mid-life crisis
14	Cultural sensitivity	14	Finish work
15	Worth of education for social mobility	15	On own for first time
16	Communication in interaction	16	New relationship / marriage
17	Recognition of coping strategies		

MOTIVATION TO STUDY EDUCATION

1	Self-motivated / Fulfilment	13	Rewards of study
2	Completing second degree	14	Improved self confidence
3	Achieving degree	15	Future directions
4	Administration changes	16	Lost momentum/personal circumstances
5	Nearing end degree/ completing goal	17	New interests/stresses taken over
6	Job related improvement	20	Lack self-confidence/direction
7	Certain age/ time finish	21	Subject choice/change
8	More time/ money/ fill gap	22	Teachers College/job
9	Intellectual/ self challenge	23	Gain knowledge/personal interest
10	Job qualification	24	Insight into education
11	Keep abreast family/ colleagues	25	Career development
12	Financial rewards	26	Cost of study/finance/life quality
		27	Achieving status

APPENDIX 6 CATEGORISATION GROUPS BY FACTOR ANALYSIS	
Group 1 need more status	Group 17 new life-role
Group 2 help my children	Group 18 use time
Group 3 need for achievement	Group 19 follow others
Group 4 need for money	Group 20 convenience
Group 5 influences of others	Group 21 specific course
Group 6 understand people	Group 22 home demands
Group 7 need degree	Group 23 study skill
Group 8 personal challenge	Group 24 academic communication
Group 9 self-improvement	Group 25 isolation
Group 10 same job needs	Group 26 time/money
Group 11 new job needs	Group 27 others' attitudes
Group 12 no resources	Group 28 child-care
Group 13 self-image needs	Group 29 timing
Group 14 over-loaded	Group 30 culture insensitivity
Group 15 support	Group 31 form filling
Group 16 other roles	

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