Motivational Beliefs, Course Experiences and Future Plans of Postgraduate Students in Pakistan

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ADDENDUM

Page xix. line17: read "Kolmogrov" as "Kolmogorov".

Page xxv delete "Nausheen, M., & Richardson, P.W. (2012). The relationships between the motivational beliefs, course experiences and achievement among postgraduate students in Pakistan. *Higher Education Research and Development*, Accepted for Publication (available on line, August 29, 2012) (see Appendix K).

and read as "Nausheen, M., and Richardson, P. (in press). The relationships between the motivational beliefs, course experiences and achievement among postgraduate students in Pakistan. *Higher Education Research & Development*. doi:10.1080/07294360.2012.709485".) (see Appendix K)

Page 14 line 3: delete "China"

Page 58 line 11: read "Saljo" as "Säljö".

Page 58 line 19: delete " Marton and Saljo ((2007) 1976)" and read Marton and Säljö (2005)

Page 60 para 2 line 1: read "his" as "her".

Page 65 para 2 line 4: read "trail" as "trial".

Page 66 para3 line4: read "Wilson (1997) as Wilson et al. (1997).

Page 84 add at the end of line 2:

"However the negatively worded items on *appropriate workload scale* (L4, L16, L21) and *appropriate assessment scale* (L3, L9, L15) were scored in reverse. Therefore a response of 'strongly disagree' was scored as 5 and a response of 'strongly agree' was scored as 1. The high score on appropriate work load scale indicated a greater appropriateness and a higher score on appropriate assessment scale indicated less reliance on factual recall.

Page 106: read "Kolomogrov" as "Kolmogorov".

Page 127, penultimate line: read "work load" as "workload".

Page 134 para 2: read "were found to be significant" read "were found not to be significant".

Page 134 table 5.1: Note MID stands for Median

Page 136: read "Kolmogrov" as "Kolmogorov".

Page 143: read "(Pallant, 2011" as "Pallant (2011)".

Page 156: add at the end of line 6: "The negatively worded items on *appropriate workload scale* (L4, L16, L21) were scored in reverse. Therefore a response of 'strongly disagree' was scored as 5 and a response of strongly agree' was scored as 1. The high score on *appropriate workload* scale indicated a greater appropriateness of workload".

Page157 table 6.1: Note "MID stands for "Median".

Page191 table 8.2: Note "MID stands for "Median".

Page 158 line 7: Delete "excessive" and read "appropriate".

Page 158: add at the end of the line 8:"Three negatively worded items on *appropriate workload scale* (L4, L16, L21) were scored in reverse. Therefore a response of 'strongly disagree' was scored as 5 and a response of strongly agree' was scored as 1. The high score on *appropriate workload* scale indicated a greater appropriateness of workload".

Page 160, para 2 line 4: add a semicolon(;) after "experiences".

Page 175 line13: delete "inappropriate" and read "appropriate".

Page177 line 4: delete "excessive and read "appropriate"

Page 177 line: delete "not".

Page 178 line 4: read ".12" as "-.12".

Page 222: The paragraph in the bottom of the page is left-aligned, not centred.

Page 236 line 8: add "appropriate" before "workload".

Page 249, 6 lines up: read "Learning" as "learning".

Page 260: add following reference to the reference list

"Marton, F., & Säljö, R. (2005). Approaches to learning. In F. Marton, D. Hounsell & N. Entwistle (Eds.), The experience of learning: Implications for teaching and studying in higher education (2nd ed., pp. 39-59). Edinburgh: University of Edinburgh. Retrieved from http://www.etl.tla.ed.ac.uk//docs/ExperienceofLearning/EoL.html".

Declaration

This thesis, except with the Research Graduate School Committee's Approval, contains no material which has been accepted for the award of any other degree or diploma in any university or other institution. To the best of my knowledge, the thesis contains no material previously published or written by any other person, except where due reference is made in the text of the thesis.

Signature:

Date: 23/08/2012

This research was approved by the Monash University Standing Committee on Ethics in Research Involving Humans on 10 October 2008 (Project No CF08/2642 – 2008001344)

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Dedication

To Ghiyas, Asad and Raima,

the warmth of my heart.

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List of Abbreviations

AAS	Appropriate Assessment Scale
ANCOVA	Analysis of Covariance
ASI	Approaches to Study Inventory
AUD	Australian Dollar
AUSSE	Australian Survey of Student Engagement
AWS	Appropriate Workload Scale
CEQ	Course Experience Questionnaire
CELTL	Centre for English Language Teaching and Linguistics
CGPA	Cumulative Grade Point Average
CGSS	Clear Goals and Standard Scale
CPQ	Course Perceptions Questionnaire
DAI	Degree Awarding Institute
DBE	Department of Business Education
DGS	Department of Gender Studies
DM	Department of Mathematics
DV	Dependent Variable
GPA	Grade Point Average
GTS	Good Teaching Scale
GQS	Graduate Qualities Scale
HEC	Higher Education Commission
IBIT	Institute of Business and Information Technology
IER	Institute of Education and Research

IMS	Intellectual Motivation Scale
KMO	Kaiser Meyer Oklin
LCRS	Learning Community and Resources Scale
LCS	Learning Community Scale
LRS	Learning Resources Scale
M	Mean
MANCOVA	Multivariate Analysis of Covariance
MBE	Master of Business Education
MBIT	Master of Business and Information Technology
MSLQ	Motivated Strategies for Learning Questionnaire
MTDF	Medium Term Development Framework
NSSE	National Survey of Student Engagement
PALS	Patterns of Adaptive Learning Survey
PKR	Pakistani Rupee
PASW	Predictive Analytics Software
SCERH	Standing Committee on Ethics in Research Involving Humans
SD	Standard Deviation
SES	Socio Economic Status
SSS	Student Support Scale
SPSS	Statistical Package for Social Sciences
TLC	Teaching Learning Centre
UNICEF	United Nations International Children's Emergency Fund
UNESCO	United Nations Educational, Scientific, and Cultural Organization

Publications Based on this Research

Nausheen, M., & Richardson, P.W. (2012). The relationships between the motivational beliefs, course experiences and achievement among postgraduate students in Pakistan. *Higher Education Research and Development*, Accepted for Publication (available on line, August 29, 2012) (see Appendix K).

Nausheen, M., & Richardson, P.W. (2010). The relationships between the motivational beliefs, course experiences and achievement of postgraduate students. In M. Devlin, J. Nagy and A. Lichtenberg (Eds.) *Research and Development in Higher Education: Reshaping Higher Education*, 33 (pp. 501-512). Melbourne, 6–9 July, 2010.

Abstract

Much of the previous research on students' motivational beliefs and course experiences, in the context of higher education has been conducted in the West, with very few studies conducted in Asian countries and even fewer studies in the Pakistani context. This study investigated the motivational beliefs, course experiences and future plans of postgraduate students in a highly ranked Pakistani university.

The study employed a theoretical framework based on social cognitive and expectancy value theories, proposing that certain entry characteristics such as gender, admission score and parents' socio-economic status along with future plans and certain contextual factors such as department and shift of study serve to shape students' motivational beliefs and course experiences, which in turn influences their academic achievement. Four faculties were randomly selected from 13 faculties at the University of the Punjab, Pakistan. Within the four faculties, the researcher was given access to five departments. Postgraduate student participants (N=368 of whom 235 were female) with a mean age of 22.45 years (range 19-41 years) and who were enrolled in either the morning or afternoon shift of study, volunteered to undertake the survey. This study had four main groups of variables: motivational beliefs, course experience, academic achievement and future plans of the students. A questionnaire was developed using scales from the Motivated Strategies for Learning Questionnaire (MSLQ), and the Course Experiences Questionnaire (CEQ) to measure the motivational beliefs and course experiences of students. Students' achievement scores in the course were obtained from the students' records office as a measure of their academic achievement. Three open-

ended questions and one structured response question were used to obtain information about the future plans of students.

Data analyses included an exploratory factor analysis of motivation scales and course experience scales, descriptive statistics, Multivariate Analyses of Covariance (MANCOVA), correlation analysis and a multinomial logistic regression of the quantitative data. A thematic analysis of students' responses to the open-ended questions about their future plans was also performed.

The results indicated that the factorial structure of the two Western based instruments, the MSLQ and the CEQ, changed when used with postgraduate students in the Pakistani context. Motivational beliefs and course experiences varied significantly by gender, department and shift of study. Students' achievement scores were significantly related to their motivational beliefs and course experiences. Significant correlations were also found among almost all motivational beliefs and course experience factors. Moreover students' motivational beliefs were influenced by their future plans. Overall the results indicated that the students' entry characteristics (gender, admission scores, and future plans) as well as the context of learning (department and shift of study) played a part in the degree and nature of motivational beliefs and course experiences, and thereby influenced the academic outcomes.

Chapter 1

The Study

This chapter provides an introduction to the study and consists of four sections. The first section provides a description of the cultural and educational contexts of Pakistan and the University of the Punjab where this study was conducted. The second section (1.2) presents the purpose and research questions of the study. Section three describes the significance of the study and last two sections (1.4, 1.5) note the limitations and assumptions of this study.

1.1   Introduction and the Context

To adequately meet the varying needs of an increasingly diverse population of students is a major challenge for higher education. The provision of the best environment and conditions with which to support the learning and development of students is on the educational reform agenda worldwide (UNESCO, 1998). Many studies have been conducted examining students' motivational beliefs and learning in higher education, and a systematic use of the findings of these studies has provided a basis for the improvement of the quality of student learning in higher education (Harvey, 2003). These studies have shown that the motivational beliefs of the students were significantly related to the final academic grades of the tertiary learners (Pintrich, Smith, Garcia, & McKeachie, 1993; Watson, McSorley, Foxcroft, & Watson, 2004). Course experiences have also been found to be significantly related to examination grades (Diseth, 2007) Therefore it has been suggested that students' academic achievement can be improved

by developing positive motivational beliefs and by improving their course experiences (Pokay & Blumenfeld, 1990; Watson, et al., 2004).

However most of the research on student learning in the context of higher education has been conducted in developed countries such as the USA, UK, Australia and Europe (Diseth, 2007; Diseth, Pallesen, Hovland, & Larsen, 2006; Harvey, 2003; Pascarella & Terenzini, 1998; Wilson, Lizzio, & Ramsden, 1997) with very few studies conducted in Asian countries (Salili, 1996; Salili & Hoosain, 2007). Even fewer studies of this nature have been conducted in relation to the Pakistani context and little research addresses the characteristics, motivations, needs, interests, and experiences of Pakistani students.

Being a part of the higher education community in Pakistan, issues of higher education quality have been of increasing concern and interest to me. My experience of teaching at the University of the Punjab (Lahore), Pakistan, during the last sixteen years has led to the development of an interest in the study of motivational beliefs and course experiences of the postgraduate students, which is the main focus of this thesis.

This thesis is contextually situated in contemporary Pakistan in terms of the research site, the participants and the researcher. The following subsections describe the context of the study. The first subsection (1.1.1) provides a brief overview of the Pakistani cultural context. The second subsection (1.1.2) provides a brief description of Pakistani educational context by explaining the current system of education in Pakistan as a backdrop for the discussion on learning, motivation and future plans of Pakistani

postgraduate students. Subsection three (1.1.3) briefly introduces the University of the Punjab, each of the departments included in the sample and the degree programs offered by these departments.

1.1.1   Pakistani cultural context and values.

The Islamic Republic of Pakistan is a sovereign country that came into being in 1947. It has an estimated population of 169.9 Million and is the sixth most populous country in the world. With a median age of around 20 years, Pakistan is also considered to be a young country (Government of Pakistan, 2010). It is estimated that there are currently approximately 104 million Pakistanis below the age of 30 years. The total working aged population is 121.01 million, with the size of the employed labour force estimated at 52.71 million as of 2008-09 (Government of Pakistan, 2010). According to the CIA (Central Intelligence Agency, 2010) the rate of unemployment (the percent of labour force without employment) in Pakistan is 15.4 % and in this respect (level of unemployment) the nation is ranked 51 in the world. The national language of Pakistan is Urdu and there are six major and 57 minor languages spoken in Pakistan (Rehman, 2008).

Pakistani society has a diverse population, yet is considered to be highly collectivist like most other Asian countries, and most people have high concern for interpersonal relationships. On the individualism index (IDV) proposed by Hofstede, Hofstede, and Minkov (2010, p. 96) Pakistan ranked 70-71(score=14) out of 76 countries, whereas the USA ranked 1(score=91) and Australia ranked 2 (score=90).

Individualism pertains to societies in which ties between individuals are loose, everyone is expected to look after himself or herself or his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups which throughout people's lifetimes continue to protect them in exchange for unquestioning loyalty (Hofstede, et al., 2010, p. 92).

Hofstede (2010) has emphasised that culture plays an important role in the behaviour of people. The most significant manifestation of Pakistani collectivism is the key role played by family (Islam, 2004); individuals perceive themselves as part of a group that is socialised in a value system where interpersonal relationships, solidarity and aggregate interest are paramount (Mujtaba, Afza, & Habib, 2011).

Although strong patriarchal values are embedded in the social-cultural norms, the nature and degree of male domination vary across classes and regions. In South Asia, Pakistan is the country with the widest gender gap and discrimination against women continues to persist in all walks of life (UNICEF, 2006). Women are mostly placed in reproductive roles as mothers and wives in their private lives at home and men shine in productive roles in the public scene as bread winners (Khan, 2007, p. 1). However with more opportunities to participate in higher education more educated females have become professional entrepreneurs and competitors in the economic development of the country (Mujtaba, et al., 2011).

1.1.2   The state of education in Pakistan.

There are widespread inequalities in education in Pakistan including gender disparities and an urban-rural divide. The overall literacy rate (age 10 years and above) is 57% (69% for male and 45% for female). The data show that literacy remains higher in urban areas (74%) than in rural areas (48%), and is more prevalent for men (69%) compared to women (45%). However, it is evident from the data that overall female literacy is rising over time, but progress is uneven across the provinces (Government of Pakistan, 2010).

Education in Pakistan is divided into six levels, Pre-Primary (for children aged three to five years) Primary (grades one through five), Middle (grades six through eight), High (grades nine and ten, leading to Secondary School Certificate), Intermediate (grades eleven and twelve, leading to a Higher Secondary School Certificate), and Higher Education (education above grades 12), corresponding to the age bracket of 17 to 23 years. The higher education system in Pakistan is made up of two main sectors: the university/Degree Awarding Institutes (DAI) sector and the affiliated Colleges sector. A bachelor degree (BA/BSC) is awarded after two years of study, mostly at affiliated colleges. A Masters Degree or Postgraduate degree is mostly undertaken at universities and requires a further two years of study after a bachelor degree. In Australia, the USA and the UK an undergraduate degree with honours requires at least four years of study at a university. Therefore a postgraduate degree in Pakistan may be considered the equivalent of the 3rd and 4th years of an undergraduate degree in Australia, the UK and the USA.

The system of education is considered to be highly fragmented and segmented, consisting as it does of three parallel streams that start at the primary level (Deeni Madris/Religious Schools, Government Schools and Private Schools) and persists throughout the education cycle (Private and Public Universities/ Colleges at higher education level) (Husain, 2005). Deeni Madris provide education with a religious focus. The medium of instruction adds to the complexity of Pakistan's segmented system of Education. At Government schools, which provide education to almost 73% of the total primary school enrolment (Husain, 2005), the medium of instruction is predominantly Urdu. Some government schools in rural areas also teach in regional languages, whereas the medium of instruction at elite private schools/institutions is English. English is taught as a compulsory subject from primary to bachelor level due to the perceived importance of English for competition in a globalised world order .Therefore a major challenge for the current system of education is to preserve the rich cultural heritage through national language while also enabling individuals to compete nationally and internationally (Government of Pakistan, 2009).

There are 73 Public and 59 Private Universities (Government of Pakistan, 2010; Higher Education Commission, 2010).The Higher Education Commission (HEC) is a key autonomous body responsible for allocating public funds from the federal government to universities and Degree Awarding Institutes (DAI) and accrediting their degree programs. Colleges are funded and regulated by provincial governments, but follow the curriculum of the HEC funded universities/DAIs with which they are affiliated. The higher education system is predominantly public in nature with an

enrolment ratio of less than 4% of the age cohort, compared to 11.5% in India and 35% in Malaysia (World Bank, 2011).

Currently there are approximately 948,364 students enrolled in postgraduate programs (MA/MSc) with more females (53%) than males, at both public and private universities in Pakistan (Government of Pakistan, 2010; Higher Education Commission, 2010). Since 2000, the access of women to higher education has improved significantly. The current political environment is very supportive of women's educational opportunities (Malik & Courtney, 2011). However their participation in scientific and technical fields is still inadequate due to a number of social and cultural barriers that interfere with their development as citizens and also as professionals. Moreover women who join higher education often tend to take courses in the arts and social sciences rather than in pure sciences (Khan, 2007). In fact women's access to higher education depends on the social system they belong to; women belonging to the upper and middle classes have greater access to education and employment opportunities and can exert greater control over their lives (Khan, 2007).

1.1.3 University of the Punjab.

This study was conducted at the University of the Punjab, Lahore, Pakistan. There are 10 general public universities in the province of Punjab. Quaid-e-Azam University Islamabad is ranked number one and the University of the Punjab is ranked 2nd among 24 general public universities of Pakistan. The University of the Punjab is one of the oldest and largest universities of Pakistan. Established in 1882, the University comprises

4 campuses, 13 faculties, 9 constituent colleges, over 63 departments, centres, institutes, and more than 500 affiliated colleges. It has over 620 permanent faculty members involved in teaching/research and over 30,000 on-campus students. Being one of the best and the largest universities of the Punjab it attracts students from all over Pakistan and specifically from all over the Punjab. Recently some good private universities have been established in Lahore but the University of the Punjab, due to its high quality, affordable fees and good reputation, is still a preferred choice of most of the students (and their parents) who want to get a degree from a reputable public university.

The University of the Punjab offers two types of enrolment in the form of morning and afternoon shifts. The same degree programs and courses are offered in these shifts and the teaching staff is also the same for the two shifts. Students who either fail to get admission into the morning shift due to the high admission criteria or cannot study during the morning shift are generally able to get admission in the afternoon shift. Fees are higher for afternoon shifts, even though students are not provided with the accommodation and hostel facilities available to students enrolled in the morning shift. The students enrolled in the two shifts are different and these differences are elaborated further in Chapter 3 (Section3.2).

The normal duration of a postgraduate Masters degree at the University of the Punjab is two years (after 14 years of education at school and college). A minimum of 66 credits are required for the Master's degree and these credits are normally required to be earned in four semesters. Each semester is of eighteen weeks with sixteen weeks for teaching and one to two weeks for examinations. In addition to coursework students are

also required to take a six credit hours research project (dissertation)/project report/ internship/or a special paper, entailing 9.09% percent of the study load for the four semesters. The teacher is responsible for the evaluation of the work/ performance of the students of his/ her class and for the award of grades to them on the basis of such evaluation. The number and nature of tests and assignments depends on the nature of the course. However, in the case of taught courses there is at least one home assignment, two quizzes and two tests (mid semester and final examination) in each course with the following weighting:

Assignments 25%

Mid Semester Examination 35%

Final Examination 40 %

To pass a course, the student must obtain at least a 'D' grade, represented by 50% cumulative score in mid and final semester examinations and 50% separately in the assignment out of the assigned marks. A mid semester examination is conducted eight weeks after the commencement of the semester and the final examination is held at the end of the semester (University of the Punjab, 2008).

In order to calculate the Grade Point Average (GPA) for the semester, the grade point is multiplied by the credit hours in each course to obtain the total grade points, added up to give the cumulative grade points and then divided by the total number of credit hours to get the GPA for the semester. In this study the Cumulative Grade Point

Average (CGPA) of students at the end of three semesters was obtained from the Students' Records Office which is calculated by adding up the cumulative Grade Point Average for each semester to obtain the grand total and then divided by the total number of credit hours of the courses studied. In addition to the CGPA, students' achievement scores in the course in which the questionnaire of the study was administered were also obtained from the Students' Record Office.

1.1.3.1 Sampled departments.

Five departments, namely the Department of Gender Studies (DGS), Department of Mathematics (DM), Department of Business Education (DBE), Centre for English Language Teaching and Linguistics (CELTL) and Institute of Business and Information Technology (IBIT), from four sampled faculties were included in the study. Given below is a brief description of the postgraduate degrees offered by the sampled departments along with a summary of the possible occupational/ career choices, available to the graduates, as stated in the prospectus of the respective departments.

The Department of Gender Studies (DGS) is a constituent department of the Institute of Social and Cultural Studies. It was established in 2001 as the pioneer in the subject in Pakistan. It aims at preparing a catalyst mass of properly educated professionals who can devise and actively engage in sustainable gender development activities with strong commitment for human rights, faith in the potential of women, complementarities of gender roles, and mutual gender respect. The Department of Gender Studies (DGS) offers a Master of Arts in gender studies. The graduates may have diverse career opportunities, such as teaching and research positions in universities

and colleges, positions in public and private departments/institutions having programs in women's development and child protection, lead trainers in developmental and community work, research, planning, supervision, monitoring and evaluation, work with advocacy groups, human rights' organizations, environmental and consumer groups, health care and social sciences, and positions in a wide variety of settings including policy and lobbying organizations, research centres, trade and international associations (Institute of Social and Cultural Studies, 2008).

The Department of Mathematics (DM) offers Master of Science (MSc.) in Mathematics. The career opportunities available to graduates include teaching positions in schools, colleges and universities, managerial positions in banks and accountancy firms.

The Department of Business Education (DBE) is a constituent department of the Institute of Education and Research (IER). It offers a Master of Business Education program to (a) train business teachers for the Government Commercial Institutes and Government Colleges of Commerce, and (b) prepare business personnel for Executive and Junior Executive levels. The career opportunities available to the graduates include teaching positions in schools, colleges and universities, leadership positions in higher secondary schools and Colleges of Education, research officers, and positions in business firms and industries.

The Centre for English Language Teaching and Linguistics (CELTL) is also a constituent centre of the Institute of Education and Research (IER). It offers a Master of

Arts in English Language Teaching and Linguistics. The career opportunities available to the graduates include English language teaching positions in schools, colleges and universities.

The Institute of Business and Information Technology (IBIT) offers a Master of Business and Information Technology (MBIT). Graduates may have jobs in managerial capacity in reputed business organizations, information technology firms, banks and local as well as multinational companies.

1.2   Purpose of Study and Research Questions

The purpose of the study was to investigate the motivational beliefs, course experiences and future plans of the postgraduate students. The study was driven by the following research questions grouped together according to the main concerns of the study, that is, motivational beliefs, course experiences, and future plans of the students.

What are the motivational beliefs of the postgraduate students in various disciplines of study at the University of the Punjab?

Are there significant differences in motivational beliefs of males and females?

Are there significant differences in the students' motivational beliefs in various disciplines of study?

Are there significant differences in the students' motivational beliefs in morning and afternoon shifts of study?

What are the course experiences of postgraduate students in various disciplines of study at the University of Punjab?

Are there significant differences in the course experiences of males and females?

Are there significant differences in the students' course experiences in various disciplines of study?

Are there significant differences in the students' course experiences in morning and afternoon shifts of study?

Are there any relationships between the motivational beliefs, course experiences and academic achievement of students?

What are the future plans of the postgraduate students?

How do future plans relate to motivational beliefs and course experiences of the students?

1.3   Significance of the Study

This study is expected to have both theoretical and practical significance. At the theoretical level, this study will make a contribution to the growing body of literature on motivational beliefs and course experiences of the students. As mentioned earlier most of the research on student motivation and learning in Asian contexts has been conducted with Chinese populations. Although Pakistan is a collectivist country, its cultural

context, due to its geographical location, religious affiliation and historical background, may be considered to be different from previously studied Asian countries, such as China, Singapore and Hong Kong. Therefore this study extends the previous research to the different socio-cultural milieu of Pakistan.

Moreover, in a range of Western countries, many research studies have established the relationship between academic achievement and motivational beliefs, and achievement and course experiences (Eccles, Wigfield & Schiefele, 1998; Pintrich & DeGroot, 1990; Pintrich & Zusho, 2007) but few studies have explored the relationship between motivational beliefs and course experiences. Therefore this study will add to the existing knowledge about the relationship of students' motivational beliefs to their course experiences.

Due to lack of research on higher education students in Pakistan, this study investigating the relationship between the motivational beliefs and the course experiences of postgraduate students in various disciplines of study at the University of the Punjab is expected to be the first in Pakistan. The study will provide an understanding of the factors affecting the learning processes and academic achievement at the University of the Punjab by providing an insight into the course experiences and motivational beliefs of the students in various disciplines of study.

At the practical level, the information derived from this study may serve as a basis for the improvement of academic programs in Pakistani universities more generally. This study measured the experiences of students in terms of their perceptions

and satisfaction with the quality of teaching, academic workload, available resources and learning community. These variables are of significant importance in the current system of mass higher education in Pakistan. Apart from enabling a better understanding of factors affecting students' experience at university, the results of the study also contribute suggestions for some practical and feasible initiatives to the Higher Education Commission of Pakistan, highlighting the importance of students' views in the current efforts of the Government to enhance the quality of university education.

1.4   Limits on the Scope of the Study

This study explored the issues related to motivational beliefs, course experiences and future plans of the postgraduate students, which could be investigated in many different ways, therefore a number of limits were set to focus and direct the research. These limits need to be taken into consideration when findings are interpreted. Many of these limits also mark out frontiers for future research. The limits are summarised below.

Firstly, this study was developed in a Pakistani context, albeit drawing heavily on western research and literature. Although it is likely that many aspects of the study may have relevance internationally and to other Asian contexts, many observations apply most directly to the Pakistani context.

Secondly, the sample for the study was selected from only one public university in Pakistan due to availability and access. It is therefore not prudent to conclude that these results are generalisable to all universities in Pakistan.

Thirdly, this study was conducted with postgraduate students in their second last semester of the study, enrolled in five departments (Department of Gender Studies, Department of Mathematics, Institute of Business and Information Technology, Department of Business Education and Centre for English Language Teaching and Linguistics) at the University of the Punjab, and therefore was limited to postgraduate students, their cultures and age group in Pakistan. Its findings are thus anticipated to be of particular applicability and relevance in similar learning contexts.

Fourthly, most of the empirical analysis in is correlational in nature. The analysis is weighted towards focusing on the strength of the relationship between variables rather than on the conceptual characteristics of these relationships.

Lastly, the empirical investigation of the students' motivational beliefs, course experiences and future plans relied exclusively on one source of data, the self–reports by the participants on the research instrument/questionnaire. Therefore there is a potential for single source bias that limits the possibilities for validating the findings. Although beyond the scope of this doctoral research, data from student interviews may have provided additional validation for the findings.

1.5 Assumptions

The present study was carried out under following assumptions:

This study used the entry test scores, GPA and achievement scores drawn from the Students' Records Office. It was assumed that the staff in this office entered these scores correctly and provided accurate information.

The study adopted scales from the MSLQ and CEQ, which are self-report instruments and it was assumed that participants were answering honestly. Additionally, the MSLQ and CEQ were designed to assess motivational beliefs and course experiences for a particular course (McInnis, Griffin, James, & Coates, 2001; Pintrich, et al., 1993). It was assumed that participants were responding to the survey based on their feelings/perceptions about the course in which the questionnaire for study was administered.

1.6   Structure and Organization of the Thesis

The thesis is organised into 10 chapters. This first chapter has introduced and contextualised the study and has also provided a brief outline of the research questions. A description of the significance of the study along with its assumptions and limitations has also been given in this chapter.

Chapter Two provides a review of the literature relevant to the students' motivational beliefs and course experiences. This review provided a rationale for the study, assisted in justifying its worth and significance and also acted as a basis for the theoretical framework of the study.

In Chapter Three a detailed account of the methodology of this study is presented. It includes a description of the research design, the participants and sample selection, research instruments and the procedure for data collection, together with a justification of the choices made. This description is followed with a discussion of the procedure and techniques used for data analysis.

The results of the quantitative as well as qualitative analyses of the data are presented from Chapter Four till Chapter Eight. Chapter Four presents the results of the factor analysis. Chapter Five presents the results of the descriptive as well as multivariate analysis (MANCOVA) of the data on motivational beliefs of the postgraduate students. Chapter Six presents the results of the descriptive as well as multivariate analysis (MANCOVA) of the data on the course experiences of the postgraduate students. Chapter Seven presents the results of the correlation analysis and Chapter Eight is devoted to the results of the qualitative thematic analysis and multinomial logistic regression of the data about the future plans of the postgraduate students.

Chapter Nine discusses all of the results in relation to both the existing theories of learning and motivation and the findings of the previous studies. This chapter also summarises and synthesises the most important findings/results of the study leading to the conclusions of the overall study. Based on the conclusions drawn, implications for teachers and educational planners are provided. Moreover recommendations for further studies in the area of students' motivational beliefs and course experiences are also discussed in this last chapter.

This first chapter has provided the context for the study, described the research questions and significance of the investigation. Its limitations and assumptions were also discussed, and the organisation and structure of this thesis has been outlined. The next chapter presents a review of the literature and previous research related to the main concerns of this study.

Chapter 2
Literature Review

Students' motivational beliefs and course experiences in higher education have been of considerable interest to educators and educational researchers. This literature review on these topics has been organised under five main sections.

The first section (2.1) briefly discusses the recent changes and challenges faced by higher education across the world and especially in Pakistan.

The second section (2.2) focuses on the motivational beliefs of students and presents a synthesis of relevant theories of motivation that have provided a theoretical framework to guide and support the present study. The role of the three motivational constructs of expectancy, value and affect in learning is discussed with reference to relevant research studies. Finally the instrument, the Motivated Strategies for Learning Questionnaire (MSLQ), used to measure the motivational beliefs of the students in this study, is discussed in detail and major research studies conducted on student motivation in higher education are reviewed.

The third section (2.3) focuses on the course/learning experiences of the students in terms of how students' course experiences have been viewed, conceptualized and measured.

The fourth section (2.4) discusses the role of future goals and future time perspectives in student motivation and learning and the fifth section (2.5) presents and

discusses the theoretical framework that has guided this study. This framework is based on the theories and research findings discussed in the third and fourth sections.

2.1 The Changing Face of Higher Education in the 21st Century

Worldwide there has been a shift in the nature, structure, function and financing of university systems (Biggs, 2003). Over the course of the later part of the twentieth century there was a worldwide expansion of higher education institutions and enrolments. In 1900 roughly 500,000 students were enrolled in higher education institutions worldwide, representing only one percent of college age population, whereas by the year 2000, this number had grown two hundredfold to approximately 100 million people, or 20 percent of the cohort worldwide (Schofer & Meyer, 2005).

In universities in developed countries these changes are quite evident in the more diverse student population, and have been supported through the expansion of technology, an increased demand for accountability and emphasis on research and performance related funding.

Studies in Australia and other countries serve to highlight some of the significant changes in the nature of student population over the last decade. For instance, in the UK 21% of full-time students at the start of their degree in 2005 were over the age of 21(Robotham, 2008). Similarly, studies by McInnis, James and Hartley (2000) in Australia reveal other important changes when they note an increase in the proportion of full-time students who were working part-time and students seeking more choice in the

subjects, delivery modes, assessment activities and facilities provided by universities. As a result of this growing diversity of the student population and rapidly changing social, technological and economic contexts, mass systems of higher education in the United States of America and Australia are now faced with the challenge of complexity of the student learning (James, 2001; Pascarella & Terenzini, 1998).

According to Biggs (2003) a greater proportion of school leavers with diverse experiences, socio-economic status and cultural backgrounds are now joining higher education compared to those in previous decades, but they have to pay more tuition fees, study in large class sizes with fewer teachers and have to choose from more vocationally oriented courses. While discussing the challenge of the growing diversity of the student population and the influences of a number of demographic, institutional, economic and technological forces in the context of the USA, Pascarella and Terenzini (1998) argue that these changes have significant implications for understanding the impact of college attendance on students and require us to rethink the students' experiences of learning and redefine the outcomes of college and university education.

Many of the changes to higher education being experienced in developed countries are also occurring in developing countries like Pakistan, where more students are now aspiring to join institutions of higher education, resulting in a significant increase in the number of universities needed to accommodate this new student population. At the time of the creation of Pakistan as an independent country in 1947, there were only two universities, and over a period of three decades this number increased to 54 in 1999-2000 with a student population of 114,010 (Government of

Pakistan, 2010). However this situation began to change significantly in the early 2000s, with the government showing a clear commitment to improving higher education, as evidenced by significant increases in spending on higher education (15.7% of the total education expenditure), the creation of the Higher Education Commission (HEC) in 2002 and the establishment of an ongoing major policy reform program outlined in the Medium-Term Development Framework (MTDF) 2005-2010 prepared by the HEC (Higher Education Commission, 2005). As a result of the reforms introduced since 2002 the higher education sector has made great progress toward addressing the significant issues and challenges that faced the sector at the turn of the 21st century and the enrolment in universities increased by 21% between 2002/03 and 40% during the 2004-2006 period (Higher Education Commission, 2006). At the present time there are 132 (73 public sector and 59 in the private sector) universities with an estimated student population of 948,364 (Government of Pakistan, 2010; Higher Education Commission, 2010). Despite the fact that only 3.7% of the 18 to 23 year olds participate in higher education, the student enrolment at the University of the Punjab alone has increased from 10,000 to 30,000 over the last eight years (Iqbal, 2008, September 20). There are no empirical studies and little literature available on the demographic and economic characteristics, expectations, and experiences of students in Pakistani higher education institutions. Some of these issues are of central concern to this current study.

With the changing face of higher education, the factors that can have an impact on student learning in higher education have also become manifold, including personal factors (e.g. age, gender, and motivation of students) and contextual factors (e.g.

teaching and learning activities, assessment, content of study, facilities, resources and social environment). In other words, the impact of wider changes in the context of higher education appears to be filtering down to the level of the individual student. Changes in the nature and provision of higher education have led to an increased interest into the exploration of the motivational and contextual aspects of student learning in the institutions of higher education.

The next section (2.2) discusses the role and importance of students' motivation in higher education.

2.2   Role and Importance of Motivation in Higher Education

2.2.1   Student motivation.

Motivation is considered to be one of the most important components of learning in any educational environment (Maehr, 1984) and has been defined in a number of different ways in the literature. In general, motivation increases an individual's energy and activity level (Maehr, 1984), directs individuals towards certain goals (Elliott & Dweck, 1983) and promotes the initiation of certain activities and persistence in those activities. According to Schunck, Pintrich and Meece (2008), motivation is a "process by which all-directed activity is instigated and sustained" (p. 4). There appear to be some broad similarities in these various definitions of this complex concept. Porter, Bigley and Steers (2003) identified three commonalities that generally reflect the various definitions of motivation in the literature, including those mentioned above: (a) motivation

energizes behaviour; (b) motivation directs/ channels such behaviour, and (c) motivation maintains/ sustains such behaviour.

Motivation is assumed to drive students to work hard and often do well in their studies. According to Pintrich (2003), a substantive question for researchers with a motivational science perspective is what motivates students and there is a host of social cognitive models and constructs that have been proposed to answer this question. However, there are five basic families of social cognitive constructs, namely, self-efficacy beliefs, control beliefs, goal orientation, value beliefs and test anxiety, that have been the focus of most recent research on student motivation in classroom contexts (Eccles, Wigfield, & Schiefele, 1998; Pintrich, 2003; Schunk, et al., 2008). Pintrich and DeGroot (1990) combined these motivational constructs under three main motivational components: expectancy, value and affect.

Pintrich (2000b) has also contended that there may be multiple motivational pathways for the energisation and direction of motivational behaviour, for example, some students may be motivated because of their self-efficacy beliefs, whereas some may be motivated to try hard , persist and achieve because of their goals, personal interests, value beliefs and other contextual factors (Pintrich, 2003). Given these understandings, the current study of the students' motivational beliefs at post graduate level at the university of the Punjab focused on how personal and contextual factors interact to generate different motivational beliefs and course experiences.

2.2.2   Theories of motivation.

In accordance with various definitions of motivation, some of which have been discussed above, a number of motivational theories exist. Various researchers in the field of motivation agree that these theories differ in the ways that behaviour is explained and predicted (Eccles, et al., 1998; Porter, et al., 2003; Schunk, et al., 2008; Stipek, 2002). However there also appears to be some inter-relationship between these theories, as it seems difficult to describe one motivation construct without making reference to another (Bryman, 2004). Schunk and colleagues (2008, p. 40) have summarized points of convergence among current theories, which has assisted in providing a framework for conceptualizing the constructs related to student motivational beliefs in the current study: (a) Motivation involves cognition, or people's thoughts, beliefs and goals, and learners cognitively direct their achievement related actions (b)motivation is not synonymous with other achievement outcomes such as learning, performance and self-regulation, rather it bears reciprocal relations with these outcomes. (c) motivation depends on a host of personal, social and contextual variables and simply possessing one or more key motivational variables such as high personal goals and high self-efficacy for achieving them, does not guarantee that the students will be motivated to learn and achieve.

The major theories of motivation relevant to academic and educational settings include social cognitive theory, expectancy–value theory, attribution theory, and intrinsic and extrinsic goal orientations/ motivation (Eccles & Wigfield, 2002; Schunk, et al., 2008; Wigfield & Eccles, 1992). However of these theories, social cognitive

theory and expectancy–value theory are considered to be relevant to the current study. In the following sections these theories are discussed briefly.

2.2.2.1 Social cognitive theory.

Social cognitive theory (Bandura, 1986) postulates that the motivational process influences both learning and performance (Schunk, 1995) and contends that individuals act based on their thoughts, goals, beliefs, and values (Schunk, et al., 2008). This theory provides a basis to understand and describe human cognition, emotion, action and motivation. Two key variables are self-efficacy and goals/outcome expectations. Self-efficacy is "a judgment of one's ability to organize and execute a given type of performance" (Bandura, 1997, p. 21). By focusing on the influence of the self-efficacy beliefs and outcome expectations on goals and behaviours, the social cognitive theory proposes that if individuals believe in their ability to undertake an endeavour and they also have an expectation of the outcome, they will behave in a certain way that will help them attain their goal (Watson, et al., 2004). Self-efficacy can have a multifaceted impact on academic functioning, as the students who believe they can exercise some control over their learning achieve success in their academic pursuits (Bandura, 1997).

Social cognitive processes and variables have also been found to be related to task choice as well as career choices (Lent et al., 2002). According to Betz and Hackett (1983) and Chen (2010) there are structural and social influences on career choice – self-efficacy has a direct bearing on career choice and is a key predictor of career choices and career development . In addition gender differences in career choices have also been found to be due to differences in self-efficacy (Lent, Brown, & Hackett., 2000).

In this study, the social cognitive theory provides a strong basis for the study of students' motivational beliefs at the postgraduate level at the university of the Punjab, as discussed in (see 3.3.1) The two main constructs of this theory i.e. *self-efficacy* and *goals / outcome expectations*, have also been the focus of the expectancy-value theory of motivation. These two constructs have been used for measuring motivational beliefs of the students in the current study (see 3.3.1) and will be discussed in detail after a brief review of the expectancy value theory of motivation.

2.2.2.2 Expectancy value theory.

The expectancy-value theory springs from a general social cognitive perspective (Schunk, et al., 2008). Eccles et al.(1983) proposed an expectancy-value model of achievement performance and choice and studied it initially in the mathematics achievement domain. The various expectancy-value theories (Bandura, 1997; Wigfield & Eccles, 1992, 2000) suggest that both expectancies and values are important for predicting students' future choice behaviour, engagement, persistence and actual achievement. Theorists in the expectancy-value tradition argue that an 'individuals' choice, persistence and performance can be explained by their beliefs about how well they will do on the activity and the extent to which they value the activity (Wigfield & Eccles, 2000, p. 68). The modern expectancy value theory has been the result of contributions of Eccles, Wigfield and their colleagues(Eccles, 1987; Eccles, et al., 1983; Wigfield & Eccles, 2000, 2002). Although the modern expectancy-value theory is based on the early work of Atkinson (1957, 1964), it has discussed the concepts of expectancy

and value more elaborately and has linked the concepts to broader psychological and social cultural determinants (Eccles & Wigfield, 2002).

Different scholars of the expectancy-value theory have conceptualized expectancies differently. For example, earlier scholars, like Atkinson (1957), have treated expectancies as outcome expectancies or the belief that "certain behaviours will lead to certain outcomes" (Wigfield & Eccles, 1992, p. 272), whereas recent researchers(Bandura, 1997; Eccles, et al., 1983; Wigfield, 1994; Wigfield & Eccles, 2000) have treated expectancies in a slightly different manner as "efficacy expectancies, or the individual's beliefs that he or she can accomplish a task" (Wigfield & Eccles, 2000, p. 72).

Another important motivational construct discussed by the expectancy-value theory is 'value'. Eccles and colleagues (Eccles, et al., 1983; Eccles & Wigfield, 1995; Eccles, Wigfield, Harold, & Blumenfeld, 1993; Wigfield & Eccles, 1992, 2000) proposed that values refer to the importance, interest/ enjoyment, future usefulness and negative costs of an activity that may cause an individual to either engage in, or not engage in the activity. Although both expectancies and values "mutually predict performance and choice of different activities" (Wigfield, 1994, p. 65), research studies,(Eccles, et al., 1983; Wigfield & Eccles, 1992) have shown that expectancies are more predictive of actual performance, while values are more critical for the determination of intentions to take future courses of action.

Relationships between expectancy and value beliefs have been studied across various subjects of study (Maths, Chemistry, English) and age groups (primary, middle and secondary school aged children, college students and adults in various professions). Important age related differences in motivational beliefs develop over the course of the life span (Eccles, et al., 1998; Pintrich & Schunk, 1996). For example, younger children have more positive achievement related beliefs than older children, and children's self-efficacy for reading and writing is higher among 7th and 10th grade students than among 4th grade students (Wigfield & Eccles, 2000).

Gender differences have also been noted. For example, girls and boys begin school with different beliefs regarding their abilities, with boys having higher perceptions of their maths abilities and girls reporting higher perceptions of their language and arts abilities (Eccles, et al., 1993). Similarly boys tend to report higher self-efficacy and expectancy beliefs than girls about their performance in maths and science (Pintrich & DeGroot, 1990). The gender differences in self-efficacy are also linked to age or grade level and begin to emerge in the middle years of schooling. These age related gender differences in efficacy beliefs are generally attributed to increased concerns about gender role stereotypes, with entry into adolescence (Wigfield, Eccles, & Pintrich, 1996).

Eccles and her colleagues have also shown that self-efficacy beliefs and performance expectancies predict performance in Maths, Physics and English, whereas task value predicts course plans and enrolment decisions in Mathematics, Physics and English and involvement in sport activities (Eccles, 1987; Eccles, Midgley, & Adler,

1984; Meece, Wigfield, & Eccles, 1990). Expectancies and values also predict career choices (Eccles, et al., 1998). Moreover the motivational components of expectancy and value have been linked with self-regulated learning strategies and the process of self-regulation (Pintrich & Zusho, 2007). In a study of school aged children conducted by Pintrich and De Groot (1990) higher levels of self-efficacy and task value were related to higher levels of self-regulation whereas higher levels of intrinsic value and self-efficacy were associated with higher levels of student achievement.

2.2.3   Theoretical framework/ model for conceptualizing students' motivational beliefs in higher education.

The theoretical framework for conceptualizing student motivation in the current study is based on the model proposed by Pintrich and De Groot (1990), Pintrich (2000a, 2000c) and (Pintrich & Zusho, 2007). This model has its roots in both the social cognitive theory (Bandura, 1986; Schunk, 1995; Schunk, et al., 2008) and the general expectancy-value theory(Eccles, et al., 1983). The model incorporates several components 'including student personal and entry characteristics (such as age, gender and prior achievement levels), several motivational constructs (expectancies, values and affect) and the social aspects of the learning settings (e.g., the social characteristics of the task and the interactions between student and teachers during instruction) (Eccles & Wigfield, 2002, p. 125). According to this model (Pintrich & DeGroot, 1990, p. 33; Pintrich & Zusho, 2007, p. 735) three motivational components of *expectancy, value and affect* explain the motivational beliefs of students. These components are elaborated below.

The expectancy component includes students' beliefs about their ability to perform a task and involves students' answers to the question, "Can I do this task"? The expectancy component has been operationalised further by students' self-efficacy beliefs and control (Duncan & McKeachie, 2005, p. 119; Pintrich & Zusho, 2007). *Self-efficacy* beliefs refer to both expectancy for success and the judgments of one's skills to perform a task and *control* beliefs refer to students' beliefs that outcomes are contingent on one's own effort, rather than external factors such as the teacher or luck.

Pintrich and colleagues (Garcia & Pintrich, 1996; Linnenbrink & Pintrich, 2003; Pintrich, et al., 1993; Pintrinch, 1999) have conducted several studies on the self-efficacy beliefs of college students. Consistently in all studies *self-efficacy* has been found to be the strongest predictor of learning and achievement in the course, accounting for 9% to 25% of the variance in grades and college students who believe they are able to do the course work and learn the material are more likely to do well in the course (Pintrich & Zusho, 2007). *Self-efficacy* has also been found to be positively related to students' cognitive engagement and performance (Pintrich & DeGroot, 1990) and other outcomes such as choice, effort and persistence may be considered as important mediators between classroom contextual and personal factors and student outcomes (Pintrich & Zusho, 2007). Similarly students who believe that they have more personal control of their learning and behaviour are more likely to perform well and achieve at higher levels than students who do not feel in control (Pintrich, 2003; Pintrich & Schunk, 2002; Skinner, Zimmere-Gembeck, & Connel, 1998). The beliefs about control also influence future behaviour and performance over time (Pintrich & Zusho, 2007).

The value component of student motivation includes students' goals for the task and their beliefs about the importance and interest of the task and involves students' answers to the question, "Why am I doing this task?" The value component has been operationalised further by *intrinsic goal orientation* (focus on learning and mastery), *extrinsic goal orientation* (a focus on grades and approval from others) and *task value* beliefs (judgments of how interesting, useful and important the course content is to the student). Over the last two decades, goal-orientation research has been an important area of achievement motivation (Pintrich, 2000a, 2000b, 2000c). Several different models of goal orientation have been proposed by different researchers and the concept has been defined in many different ways, see (Ames, 1992; Dweck & Leggett, 1988; Harackiewicz, Barron, & Elliot, 1998; Kaplan & Maehr, 2007; Maehr & Midgley, 1991), and the researchers have also differed in the number of orientations that the people may adopt in achievement situations, for example, learning vs. performance goals (Dweck & Leggett, 1988), intrinsic vs. extrinsic orientation (Pintrich & DeGroot, 1990; Ryan & Deci, 2000), mastery vs. performance goals (Pintrich, 2000c). However, most of the researchers have focused mostly on two main orientations, namely, mastery goal orientation and performance goal orientation (Schunk, et al., 2008). The mastery goal orientation is focused on learning, understanding and mastering the task, developing skills, improving competence and trying to accomplish something challenging (Ames, 1992; Dweck & Leggett, 1988; Maehr & Midgley, 1991; Pintrich, 2000c). In contrast, performance goal orientation represents a focus on demonstrating competence or ability and how ability will be judged relative to others (Ames, 1992; Dweck & Leggett, 1988; Maehr & Midgley, 1991; Pintrich, 2000a, 2000b). In the

literature, mastery goal orientation has been found to be associated with positive outcomes such as self-efficacy, persistence, preference for challenge, self-regulated learning and positive affect and well-being (see reviews in (Kaplan & Maehr, 2007; Pintrich, 2000c; Pintrich & Zusho, 2007; Schunk, et al., 2008). The reason for these outcomes is that when students are focused on trying to learn, understand and improve their performance this will help them maintain self-efficacy, lessen negative affect such as anxiety , reduce distracting thoughts, and increase cognitive capacity, engagement and achievement (Pintrich & Zusho, 2007). Mastery goals have also been found to be positively related to cognitive strategy use and self-regulation as well as performance among college students (Pintrich & Zusho, 2007). In contrast, performance goal orientation has often been associated with a maladaptive pattern of cognition, affect and behaviour (Dweck & Leggett, 1988). Nevertheless, some studies have indicated that performance goals are not necessarily maladaptive for all outcomes (Harackiewicz, et al., 1998; Pintrich, 2000a, 2000b, 2000c). Some studies have in fact found week/moderate associations between performance goal orientation and self-efficacy, grades, and positive attitudes and affect. In the model proposed by Pintrich and DeGroot (1990), Pintrich (2000a, 2000c) and Pintrich and Zusho (2007), the *intrinsic goal orientation* is similar to the mastery goal orientation. However this model does not include the traditionally defined performance goals and focuses on students' general extrinsic goal orientation with an emphasis on getting good grades in general and wanting to do well to satisfy parents and adults (Pintrich & Zusho, 2007). *Extrinsic goal orientation* has been found to be unrelated or negatively related to cognitive strategy use and self-regulation in college students, though in some studies some positive relations

have been shown to exist between *extrinsic goal orientation* and grades; extrinsic goal orientation accounted for 4% variance in such studies (see for review Pintrich & Zusho, 2007).

As mentioned above, in addition to *intrinsic* and *extrinsic goal orientation,* the value component has been operationalised through a third component of *task value* beliefs. *Task value* has been conceptualized as individuals' perceptions of the importance of the task, their interest in the task and their perception of the utility value of the task for future goals(Eccles, et al., 1983). *Task value* has been found to be positively related to cognitive strategy use and accounted for between 3% and 36 % of the variance in different measures of cognitive engagement and self-regulation. It has also been found to be positively, although less strongly, related to performance and grades (see for a review Pintrich & Zusho, 2007).

The third motivational component is that of 'affect', which concerns students' affective and emotional reactions to the task and involves answers to the question "How do I feel about this task?" In the model proposed by (Pintrich & DeGroot, 1990) the affective component has been operationalised in terms of *test anxiety* (students' worry and concerns over taking exams). *Test anxiety* is defined as a set of phenomenological, physiological and behavioural responses caused by concern about possible negative consequences or failure on an exam (Zeidner, 1998). Research has shown the consistent negative effects of anxiety on all phases of cognitive functioning and performance levels (Zeidner, 1998).

The three motivational components of *expectancy, value and affect*, as discussed above, have been used in this study to explore the motivational beliefs of the postgraduate students at the University of the Punjab, Pakistan. The following section discusses how these motivational components have been measured at the college/university level of study.

2.2.4   Measuring motivational beliefs of students in higher education.

Extensive research, longitudinal as well as cross sectional, has been conducted on the role and effects of motivational beliefs in a variety of subject areas and with almost all age groups of students (see Pintrich & Zusho, 2007; Wigfield & Eccles, 2000). In most of the studies, self-report instruments, generally questionnaires, have been used to assess ability beliefs, expectancy for success and subjective valuing of different academic tasks and activities (Wigfield & Eccles, 2000).

In research on college students, in recent years, an instrument used extensively for evaluating the motivational orientations has been the Motivated Strategies for Learning Questionnaire (MLSQ). The MSLQ was developed "using the social cognitive view of motivation and learning strategies, with the student represented as an active processor of information whose beliefs and cognitions are important mediators of instructional input" (Pintrich, et al., 1993, p. 801). Prior to the development of the MSLQ in the 1980s, most of the research on college students' learning focused on individual differences or learning styles, which had no clear links to students' actual study behaviour or to students' cognitive processing (Duncan & McKeachie, 2005). The

inventories used in those studies to measure learning have been criticized for not having a strong theoretical basis (Duncan & McKeachie, 2005; Pintrich, et al., 1993). After receiving a national science foundation grant (in the USA) to do research on a Learning to Learn Course for college students in the early 1980s, Bill McKeachie and Paul Pintrich at the University of Michigan began developing a tool for assessing students' motivation and learning strategies to help students improve learning. The early versions of this tool (varying in length from 50 to 140 items) were used to evaluate the effectiveness of the Learning to Learn course with over 1,000 undergraduates at the University of Michigan during the period 1982 to 1986 (Duncan & McKeachie, 2005). In 1986, McKeachie and Pintrich began formal development of the MSLQ after receiving a 5-year grant from the Office of Educational Research and Improvement to establish the National Centre for Research for improving Postsecondary Teaching and Learning. Under this program of research a number of correlation studies were conducted. These studies resulted in the development of a general model of college students' motivation and self-regulation, on which the MSLQ is based (Duncan & McKeachie, 2005; Pintrich, et al., 1993).

These correlation studies also revealed that students with positive motivational beliefs such as having intrinsic goal orientation for learning, high self-efficacy and task value and lower levels of test anxiety are more likely to engage in deep processing strategies and meta cognitive planning and are more likely to do better in assignments, exams and course grades (Duncan & McKeachie, 2005). The final version of MSLQ underwent 10 years of development, with three major waves of data collection in 1986,

1987 and 1988 at three collaborating colleges in the Midwest including 326, 687and 758 students respectively. The draft versions of the MSLQ were subjected to the " usual statistical and psychometric analyses, including internal reliability coefficient computation, factor analyses and correlations with academic performance and aptitude measures" (Pintrich, Smith, Garcia, & McKeachie, 1991b, p. 4).

The social cognitive framework on which the MSLQ was developed "assumes that motivation and learning strategies are not traits of the learner, but, rather that motivation is dynamic and contextually bound and that the learning strategies can be learned and brought under the control of the student" (Duncan & McKeachie, 2005, p. 117). In other words, students in different courses may have different motivations depending on their efficacy beliefs for performance, goal orientation and the value they accord the different tasks.

This contextual view of student motivation provides a strong basis for the current study of student's motivational beliefs across various disciplines of study at the University of the Punjab, Lahore, Pakistan.

With the MSLQ, the course is seen as the unit of measure, with the idea that the course is ideally situated between the very general level of all learning activities and the very specific and unworkable level of every learning situation within the course(Duncan & McKeachie, 2005). This distinct feature of the MSLQ makes it different from another widely used self-report instrument, the Learning and Study Strategies Inventory

(LASSI), which measures students' learning strategies and attitudes towards learning in general (Duncan & McKeachie, 2005).

The MSLQ in its original form consists of a motivation section and a learning strategies section. The motivation section is comprised of 31 items that assess students' goals and value beliefs for a course, their beliefs about their skills to succeed in a course, and their anxiety about tests in a course. The learning strategy section contains 31 items regarding students' use of different cognitive and metacognitive strategies. In addition, the learning strategies section includes 19 items concerning student management of different resources. The 15 scales of the MSLQ can be used together or singly (Pintrich, et al., 1993). The scales are designed to be modular and can be used to fit the needs of the researcher or instructor (Pintrich, et al., 1993).

In addition to the above-mentioned properties, the MSLQ scales have established levels of validly and reliability (Pintrich, et al., 1993) and have been used extensively by hundreds of researchers and countless instructors all over the world. The questionnaire has been translated into more than 20 different languages and has also undergone formal assessment of validity and reliability in two languages apart from English: Spanish and Chinese (Duncan & McKeachie, 2005). According to Duncan and McKeachie (2005), the MSLQ has been used frequently to study the nature of motivation and the use of learning strategies across different content areas including undergraduate statistics, undergraduate chemistry, high school social studies, and middle school physical education, with target populations including African American undergraduates, female undergraduate engineering majors, nursing students, and gifted high school students.

Moreover, the MSLQ has been used to help refine theoretical understanding of the between- and within-domain specificity of motivational constructs, to explore the nature of multiple goals and to understand more deeply the individual differences that exist in self-regulated learning. The most frequent use of the MSLQ is for evaluating the effects of courses on students. The MSLQ has also been used to assess the motivational and cognitive effects of different aspects of instruction, including instructional strategies, course structures, classroom goal structures and interventions.

Due to the broad measurement scope and the properties of the scales of the MSLQ, motivational scales of the MSLQ were considered to be most appropriate for measuring the motivational beliefs of the postgraduate students in various disciplines of study at the University of the Punjab, Pakistan, while still testing its validity and reliability (See Chapter four) in this context.

2.2.5   Research studies employing the MSLQ to investigate motivational beliefs of college students.

Since its inception, the MSLQ has been used by researchers throughout the world with different age groups and at almost all educational levels, from elementary school children to undergraduate and postgraduate students at college and university levels. During the five years from 2001 to 2004, alone, the MSLQ, either in part or in its entirety, was used in more than fifty different studies (Duncan & McKeachie, 2005).The MSLQ has been most widely used in the United States, but has also been used with Asian, Pakistani and Indian samples. An abbreviated list of 8 empirical studies that used the MSLQ or its Motivation section with undergraduate, postgraduate and

college students is provided in Table 2.1. For a more complete listing, see (Duncan &

McKeachie, 2005).

Table 2.1

Selected Studies on the MSLQ

Citation	Country	MSLQ used to address:
Ahmad & Bashir (2009)	Pakistan	Relationship among goal orientation, study strategies and academic achievement
Srilata Bhattacharyya (2007)	India and Unites States	Cross cultural motivation and self-regulation
Cheung, Rudowicz, Lang, Yue, & Kwan (2001)	Hong Kong	The relations among motivation, critical thinking, and family background
Hofer & Yu (2003)	United States	The effects of a learning to learn course on students' motivation
Karadeniz, S., Büyüköztürk, Ş., AKGÜN, Ö. E., ÇAKMAK, E. K., & DEMIREL, F. (2008)	Turkey	The Turkish adaptation study of motivated strategies for learning questionnaire (MSLQ) for12–18 Year old children: Results of confirmatory factor analysis.
Li, P. (2006)	Netherlands	A comparative study of motivational and learning styles between Asian, International and Dutch Students
Ostovar & Khayyer (2004)	Iran	Relations of motivational beliefs and self regulated learning for Iranian college students
Watson et al. (2004)	South Africa	Motivational orientation and learning strategies of first year university learners
Zusho, Pintrich, & Coppola (2003)	United States	The effects of motivation and learning strategies on performance in college chemistry classes

A review of previous research shows that most of the research studies on college and university students' motivation have been conducted in the United States and with western populations, with very few studies conducted in other countries.

Two research studies conducted in South Africa and United States that are considered to be relevant to the current study are discussed below.

Watson and colleagues (2004) used the MSLQ to explore the motivational orientation and learning strategies and their relationship with academic performance in a sample of first year university students from a psychology class. The sample consisted of 81 participants (79% female and 21% male), 48% of whom were white (n = 39); 31% African (n = 25); 20 % coloured (n = 16); and 1% Indian (n = 1), with a mean age of 21 years (range between 18 and 38 years). The mean scores of the extrinsic goal orientation, task value, control of learning beliefs and self-efficacy for learning and performance were found to be above scale mid points, indicating that the learners generally reported relatively high levels of functioning in these respective domains whereas the mean score for the affective component of test anxiety was found to be average, thereby suggesting that students were not overly anxious in test situations. The three subscales of the value component of the MSLQ showed significant correlations with academic performance. The results indicated that "the greater intrinsic and extrinsic value and interest, importance and utility the learners found in the course, the higher the marks they obtained" (Watson, et al., 2004, p. 199). Moderately positive correlations were also revealed between the self- efficacy for learning and performance subscale and academic performance. However test anxiety was found to be inversely related to

academic performance although the correlation between the affective component of test anxiety and academic performance was not significant. Motivational subscales of the MSLQ were also found by Pintrich and colleagues (1993) to be significantly related to the final academic grades.

Another study was conducted by Zusho et al. (2003) with 458 college students (243 female and 215 male) enrolled in two introductory chemistry courses at a large Midwestern university in the USA. The sample comprised 75% 'Caucasian/White', 9% 'Asian/Asian-American', 3% 'African-American', and 1% 'Hispanic'. Motivational measures for this study included self-efficacy, task value, mastery goal orientation, performance goal orientation, interest and anxiety. With the exception of the interest scale and the intrinsic motivation scale, all of the motivational measures were adapted from the Patterns of Adaptive Learning Survey (PALS) as well as the MSLQ. Academic performance was measured by students' grades at the end of the semester. The results showed that the adaptive motivational beliefs such as self-efficacy, task value and mastery goals were positively related with final grades, while maladaptive motivational beliefs such as anxiety were negatively related with the final grade.

A review of the literature shows that during the last two decades the importance of research in different cultures has been pointed out time and again (Maehr, 2008; Pintrich, 2003; Tan, McInerney, Liem, & Tan, 2008; Zusho & Pintrich, 2003) as the discoveries of differences and similarities in the application of existing theories in different cultures provides a chance to revise, accommodate and expand these theories. It is also believed that the complexity of student motivation cannot be fully understood

without examining these theories in different contexts and cultural settings (Hau & Ho, 2008). It has been argued that students from different cultures have different ways of motivating themselves for achievement, because of their exposure to different child rearing practices and different motivational practices at school and in the family (Boekaerts, 2003). Research has also shown that societal values and socioeconomic levels of the society are systematically linked to academic motivation and achievement goals (Dekker & Fischer, 2008); achievement goals are rooted within the culture and therefore the cultural context needs to be given consideration in academic motivation research (Tanaka & Yamauchi, 2004). Many recent studies have shown that in the Asian context, Western constructs of achievement motivation and learning may not operate in the same way or generate the same effects as in Western education systems due to differences in the cultural environment (Ho & Hau, 2008). The following section discusses some research studies conducted on the motivational beliefs of Asian international students and college/university students in the Netherlands, Pakistan, India, Hong Kong, Iran and Turkey.

2.2.6   Research studies on the motivational beliefs of Asian students.

In the last decade, researchers have been comparatively more concerned with the cultural variation in student motivation. Asians belong to diverse cultural and ethnic backgrounds, having a variety of languages, religions and geopolitical situations (Salili, 1996). The literature indicates that Western students are generally characterized as individualistic, independent and competitive, while Chinese, Japanese and, more generally, Asians are considered to be more group- or collectivistic-oriented with high

compliance to authority (Ho & Hau, 2008; Li, 2006), and an emphasis on effort and high educational aspirations (Ho & Hau, 2008; Salili, 1996).

Compared with the great number of studies investigating the motivational beliefs of college students in Western countries, only a limited number of studies have inquired into the motivational beliefs of the Asian students at college level. However, the researchers in the field of motivation and learning have increasingly highlighted the importance of conducting research in different cultural and social contexts (Boekaerts, 2003; Byrne & Flood, 2003; Kaplan & Maehr, 2007; Schunk, et al., 2008). It has also been suggested that since learning and education have different social functions, students in different societies might be expected to construct different goals and motivations related to learning (Bernardo, Salanga, & Anguas, 2008; Boekaerts, 2003).

A number of comparative studies have examined the differences in the motivational beliefs of Asian and Western students at the undergraduate / college level. For instance, using the MSLQ Li (2006) conducted a comparative study of the motivational and learning styles of Asian international and Dutch students at the University of Groningen in the Netherlands.. The study focused on motivational beliefs, including value (intrinsic and extrinsic goal orientation) and affect (test anxiety), learning and cognitive strategies (rehearsal, elaboration, organization and critical thinking) and resource management strategies (time management, peer group learning and help seeking). The study was conducted in three faculties, Psychology, Education and Social Sciences and Law. The group of 45 international students consisted of students from China, Indonesia and Japan who were enrolled in the International

Masters programs in Education and Business and Economic Law. The sample of Dutch

students consisted of 33 students in the final year of the doctoral stage from the Faculty

of PPSW and Faculty of Law at the same university. The study showed that the Asian

international students were significantly more test anxious than the Dutch students.

Moreover, the Asian international students with higher test anxiety showed a lack of

organization skills and were less time effective during learning. However, no significant

differences were observed on intrinsic motivation between Asian International students

and Dutch students. The sample of the current research also included postgraduate

students enrolled in a Masters Program in the faculties of Education and Business;

therefore similar results may be expected for test anxiety and intrinsic/extrinsic goal

orientations.

Cheung, Rudowicz and Lang (2001) used two motivational scales from the

MSLQ, intrinsic goal orientation and extrinsic goal orientation, in their study of the

relationship among critical thinking, motivation and family background/social class.

Data were collected from 677 students in the City University of Hong Kong in three

major areas of study (Business, Humanities and Social Sciences, and Science and

Technology) and in three years of study (Year 1 to Year 3). The sample consisted of

52.3 % (n=302) males and 47.7 % (n=275) females. The social class of the family of

each student was identified as upper class, middle class and working class, by father and

mother's occupation information i.e. their employment status (employer, employee, self

employed or not employed) and a description of the occupation. Descriptive results

showed that the students tended to have a moderately higher level of extrinsic

motivation ($M = 66.1$, $SD = 16.7$) than intrinsic motivation ($M = 59.6$, $SD = 11.8$). Results of the regression analysis indicated that the standardized effect of the upper family class (bourgeois family background) on intrinsic motivation was not significant, (0.49) however the results indicated the negative effects of bourgeois family background on the students' extrinsic motivation.

While East Asian students from Japan and China have been the focus of recent research on Asian students (Chang & Wong, 2008; Ho & Hau, 2008; Liem & Nie, 2008) very limited research has investigated the motivational beliefs of the students from south Asian countries like Pakistan and India.

Ahmed and Bashir (2009) conducted a study with post graduate students in Pakistan to investigate the relations among different goals, study strategies and college performance. The sample of the study comprised 144 students of the Government College University, Lahore, registered in two years master programs in various disciplines such as Social Sciences (Psychology, Economics, History); Pure Sciences (Physics , Chemistry, Mathematics) and Applied Sciences (Business Studies, Computer Studies, Telecommunication Engineering). The participating students' ages ranged between 20 and 27 years ($M = 23.5$, $SD = 1.14$). About 22 % of the respondents were women. At the time of the survey, the participants had completed the first year of their course work and were engaged in the second year of academic work. Two scales from the motivation section of the MSLQ were used for assessing learning and performance goal orientations. The alpha coefficients for the self-efficacy for learning and performance motivation scales were 0.64 and 0.68 respectively. In addition to two

motivational scales, five learning strategy scales of the MSLQ were used to assess the learning strategies of the students, with the overall alpha reliability coefficient of 0.89 with a range between 0.65 and 0.78 for subscales. Students' academic performance was measured by Grade Point Average (GPA) consisting of students' performance on 12 courses of 6 credit hours each, spanning over two years. GPA ranged from 2.00 to 4.00.

In Ahmed and Bashir's study, the mean scores on performance goals and learning goals proved to be similar, indicating that students had an even inclination toward both goals, and the strength of learning and performance goal orientation was comparable among students. Mean values of goal orientation and study strategies were similar across all disciplines; therefore they could not predict the GPA of the students. However discipline significantly predicted GPA by itself as well as in interaction with learning goals. Discipline explained, together with learning strategy x discipline interaction, about 19 % of the variance in GPA. Results also indicated that students with multiple goal orientation were engaged with study strategies more actively and secured relatively higher GPA than students with other motivational combinations. Learning and performance goals were moderately correlated, indicating these to be related yet distinct constructs. GPA was poorly correlated with all strategies and both the goal orientations. (0.00 to 0.16) (Ahmed & Bashir, 2009).

Bhattacharyya (2007) conducted a study to explore the relationship between the motivational orientations and the learning strategies of college pre-service teachers in India and their counterparts in the United States. The study also explored how each relationship contributed to the prediction of achievement. The sample of the study

included 200 pre-service teachers from a large, urban, Mid-South University of the United States and 143 pre-service Indian teachers from the University of Mumbai, India, a large metropolitan university. The racial composition of the sample from the United States was made up of 59% Caucasians, 38% African American, 2% Asian Americans and 1% Hispanic. The Indian sample on the other hand comprised 73.4% Hindu, 11.18% Muslims, 4.20% Christians, 5.59% Buddhist, 2.80% Sikh and 2.85% other. By using MSLQ, significant mean level differences were revealed in many motivational variables. Indian students demonstrated higher self-ratings on motivational variables of intrinsic goal orientation, extrinsic goal orientation and task value, whereas there were no significant differences in the means and standard deviations of motivational variables of control beliefs, self-efficacy for learning and performance and test anxiety. Moreover, regression analysis indicated that in the sample from United States, when only the motivational variables were entered, intrinsic goal orientation and self-efficacy for learning and performance were significant factors in the prediction of academic achievement with a regression coefficient of 0.26. Higher intrinsic motivation and self-efficacy translated into higher achievement. However when both motivational and learning strategies were included, intrinsic goal orientation and self-efficacy and the learning strategy variable of rehearsal were found to be significant factors in the prediction of achievement. Adding the demographic variables of father and mother's educational level and income did not change anything in the prediction of achievement (Bhattacharyya, 2007).

In the sample from India, when only the motivational variables were entered, the overall index of regression coefficient was 0.14 and the motivational component of self-efficacy was found to be significant in the prediction of academic achievement. When motivational components and learning strategies were included, self-efficacy and the learning strategy component of peer learning became significant predictors of academic achievement. Nevertheless, self-efficacy was no longer significant, since after adding the demographic variables of father and mother's educational level and income to the variables, self-efficacy was overtaken by the learning strategy variable of peer learning. In brief, the results of the study showed that the predictive factors responsible for the academic achievement of Indian students were self-efficacy and peer learning, while in the United States, the predictive factors responsible for academic achievement were intrinsic goal orientation, self-efficacy and rehearsal. These results highlighted that self-efficacy for learning and performance is not necessarily culture specific and was an important motivational variable in both countries, while demographic variables were not important. Similar results were expected in the present study at the beginning.

Ostovar and Khayyer (2004) examined the correlations of scores for motivational beliefs and self-regulated learning outcomes among 200 college students (115 women and 85 men), that were selected randomly out of 645 students in the College of Education and Psychology in Shiraz University. These students were enrolled in the major areas of Special Education, Educational Administration, Elementary Education and Psychology. The participants responded to the MSLQ. Although this study focused on the relations of motivational beliefs and self-regulated learning outcomes, it also

provided an insight into the relationship among various motivational components of the MSLQ. Results showed that scores on self-efficacy and intrinsic value were positively correlated with self-regulated learning outcomes but test anxiety scores were negatively correlated with self-regulated learning outcomes. Similar correlations were expected in the current study of motivational beliefs, course experiences and academic achievement among post graduate students enrolled in the Faculty of Education at the University of the Punjab in particular and for students enrolled in other faculties/ disciplines of study in general. The MSLQ has also been used with a sample of 769, 12-18 year-old Turkish students in the Turkish adaptation study of MSLQ by Karadeniz and colleagues (Karadeniz, Büyüköztürk, AKGÜN, Çamak, & Demirel, 2008). Although this study focused on the confirmatory factor analysis of the MSLQ scales, it also revealed that positive motivational factors such as intrinsic goal orientation, task value, self-efficacy and control beliefs for learning were all positively correlated with one another, with correlations ranging from 0.27 to 0.58.; in other words students scoring high on one motivational factor would also have high scores on other motivational factors. This study also showed significant correlation between extrinsic goal orientation and test anxiety.

2.2.7   Personal characteristics, disciplinary context and motivational beliefs of the students.

Students' personal characteristics such as age, gender and ethnicity can have a major effect on motivational beliefs as well as on the learning outcomes (Pintrich & Zusho, 2007). Systematic variation has been reported in students' motivation beliefs and

achievement in accordance with these personal characteristics (see for example (Bong, 1999; C. Chen, Lee, & Stevenson, 1996; Hackett, Betz, Casas, & Rocha-Singh, 1992). Research shows that important age-related differences in motivational beliefs develop over the course of the life span (Eccles, et al., 1998; Pintrich & Schunk, 2002) and motivational processes become more differentiated with age (Pintrich & Zusho, 2007). For example, younger children have more positive achievement related beliefs than older children, and children's self-efficacy for reading and writing is higher among 7th and 10th grade students than among 4th grade students (Wigfield & Eccles, 2000). In most of the research on college students conducted by Pintrich and colleagues in the United States, the age ranged between 17-25 years. It has been suggested that age may be seen as a moderator of the relations between motivation and outcomes such as self-regulation and achievement if the students' age is over the traditional age range of 17-25 years (Pintrich & Zusho, 2007).

Several researchers have explored gender differences with respect to various motivational beliefs, for example girls and boys begin school with different beliefs of their abilities, with boys having higher perceptions of maths abilities and girls reporting higher perceptions of language and arts abilities (Eccles, et al., 1993). Similarly, boys tend to report higher self-efficacy and expectancy beliefs than girls about their performance in maths and science, and boys feel less test anxious than did girls (Pintrich & DeGroot, 1990). Gender differences in self-efficacy are also linked to age or grade level, and begin to emerge in the middle years of schooling. These age related gender differences in efficacy-beliefs are generally attributed to increased concerns about

gender role stereotypes, with entry into adolescence (Wigfield, et al., 1996). Gender differences in motivational beliefs have also been attributed to parental influence, school influences and socio cultural influences (Meece, Glienk, & Burg, 2006). According to Pintrich and Zusho (2007, p. 786), although statements about gender-related achievement gaps apparently no longer appear to be accurate, there are certainly differences in other outcome variables, such as choice and persistence. Pintrich and Zusho (2007, p. 787) further contend that although the percentage of females who choose to pursue natural sciences and or/mathematics majors in college is increasing, women still remain severely underrepresented in the fields of science, engineering and mathematics. The reason for this is the low self-efficacy perceptions of females in comparison to males in subjects such as mathematics and science, in spite of their actual achievement score being just equal to or higher than males. Meece, Glienk, and Burg, (2006, p. 358) suggest that if gender differences are evident in students' competency and value perceptions, these differences are likely to have an impact on their activity choices, engagement and performance.

Several research studies have shown that female students have higher levels of test anxiety than male students (Bandalos, Yates, & Thorndike-Christ, 1995; Cassady & Johnson, 2002; Chapell et al., 2005; Zeidner, 1990). As *test anxiety* is operationalised in terms of the test worry (cognitive component) and emotionality components, females have been found to report higher levels of *test anxiety* in both emotionality and cognitive components (Cassady & Johnson, 2002).

Motivational processes and beliefs are also considered to be sensitive to the features of the task, the classroom or the subject in which the student is engaged (Anderman, 2004). According to Pintrich (2008) much research and theory in educational psychology is moving from the focus on individual differences alone to a greater consideration of the person within a context, and "in considering subject area differences in student motivation a fundamental question relates to the degree to which students' perceptions and beliefs vary across those domain contexts" (Anderman, 2004, p. 283). As the issues related to contextual differences are considered to be important not only for the development of theory but also because of their implications for instructional practice (Anderman, 2004; Creswell, 2008), this study also aimed to explore the differences in students' motivational beliefs in different disciplines of study at postgraduate level.

In literature on student motivation, self-efficacy, task value and test anxiety are described to be different for different subject domains (i.e. Mathematics vs. English) (Schunk, 1995; Wigfield, 1994; Wigfield & Eccles, 1992).

Eccles, Wigfield and their colleagues have also found differences in motivational beliefs of students in English and Mathematics classrooms at elementary and secondary levels and students' expectancy or efficacy beliefs, task value and anxiety were generally found to be less positive and adaptive in mathematics classrooms than in English classrooms (Eccles, et al., 1983; Eccles, et al., 1984; Wigfield, 1994; Wigfield & Eccles, 1992). In contrast, in a similar study by Wolters and Pintrich (1998) for 7th and 8th grade students in the subjects of Mathematics, English and social studies, task

value was higher in mathematics than the social studies and English. This study also showed subject area-by-gender interaction. Males reported greater levels of task value in mathematics than in English and social studies with no difference in task value expressed for English and social studies and females reported higher levels of task value in mathematics than either in English or social studies but unlike males, females reported higher task value in English than in social studies. Subject area differences and significant subject-by-gender interactions were also reported for self-efficacy beliefs and test anxiety.

Cheung and colleagues (2001) in their study of the effect of family background on critical thinking among university students reported that extrinsic motivation was significantly lower among males than females and students of business, humanities and social sciences than the students of science and technology, at the City University of Hong Kong, in three years of study (Year 1 to Year 3).

In contrast no mean level differences were reported in the learning and performance goal orientations of the students across various disciplines in the study at the Government College University, Lahore, Pakistan (Ahmed & Bashir, 2009).

In most of the studies contextual and domain level differences have been examined with the same group of students across different subjects of the study. These differences have been comparatively less examined at college/university level among different students enrolled in different study domains. However in the light of the research findings it was expected that there would be significant differences in the

motivational beliefs of male and female students and across various disciplines of study at postgraduate level at the University of the Punjab.

2.3   Learning Experiences

2.3.1   Contemporary perspectives on learning experiences.

The experience of joining an institution of higher education is a significant event or a turning point for an individual (Wingate, 2007), in that it provides for a transition to another stage of education and life experiences. As discussed in the previous section on the changing face of higher education, the students' patterns of experiencing university life are also changing (McInnis, 2001) and students' experiences of university life are considered to be embedded in a complex environment made up of diverse independent elements such as student related characteristics and organizational factors, such as the structure of teaching and learning (White, 2009).

Research indicates that the early experiences of students in higher education systems are vital in establishing attitudes and outlooks that are carried forward throughout the course and that these views and beliefs are critical to success (Wingate, 2007). However, these effects sometimes do not show themselves until the second year of a program of study or even later (Wright, 1982).

Most research on learning in higher education has focused on undergraduate students, while postgraduate students have been a comparatively neglected group (Lindsay, Breen, & Jenkins, 2002). Although a substantial number of studies (see

Haggis, 2002; Meyer & Kiley, 1998; Rowley & Slack, 1998; Scheyvens, Wild, & Overton, 2003) have been conducted with postgraduate research students and international postgraduate students exploring the issues of cultural and academic adjustment in international universities, it is hard to find studies specifically conducted to explore the experiences of postgraduate students enrolled in taught degrees, and this absence of research is certainly the case in Pakistan.

It is clear, however, that the research on various aspects of higher education has led to a better understanding of students' experiences of learning (i.e. students' needs, problems, preferences and choices) in higher education. Learning in higher education is considered to be complex and multidimensional in nature and has been viewed from various perspectives as discussed in the following sections.

2.3.1.1 Approaches to learning perspective.

The origins of approaches to learning perspective can be traced back to a series of studies conducted by Marton and Saljo in the late 1970s (Cuthbert, 2005). Using phenomenography, these researchers looked at the qualitative aspects of university students' learning. The group of researchers under this perspective focused on the outcomes of learning and described different categories of learning outcomes in terms of the intentions of the students in starting a learning task and the process used to carry out those tasks. Originally two approaches, namely 'deep' and 'surface' were formulated by Marton and Saljo ((2007)1976) and subsequent research by Entwistle and Ramsden (1983) added to this pair the 'strategic' approach. This perspective has provided an explanation of various outcomes exhibited by students. For example, a surface approach

to learning was associated with a focus on rote learning, memorisation and reproduction, a lack of reflection, a preoccupation with completing the task and extrinsic value, whereas a deep approach was associated with holistic style with an intention to understand, the use of a wide variety of information and intrinsic value (Entwistle & Tait, 1990). Approaches to learning comprise both what students do (when learning) and why they do it.

After the qualitative and experimental work carried out by Marton and Saljo in 1976, Entwistle and Ramsden (1983) and Biggs (1987) were considered to be among the first to develop quantitative tools such as the Course Perceptions Questionnaire (CPQ), Approaches to Study Inventory (ASI) and the Study Process Questionnaire (SPQ) for looking at a broader sample of university students' approaches to learning.

According to Entwistle (1997) the 'approaches to learning perspective' drew attention to the outcomes of learning, which are congruent with the aims of teaching and made one think about the quality of learning in higher education. This perspective is also considered to have provided a great deal of knowledge about learning in higher education (Case, 2008). In addition, Cuthbert (2005) comments that the approaches to learning perspective provided knowledge about differences in the quality of engagement of the learner, such as learning for understanding, learning for reproduction or learning for achievement, and that the learner's approach to the learning task is dependent upon his/her conscious choices for learning. He further points out that intentions for different tasks depend upon the nature of the task and the context; therefore it is possible to

manipulate students' intentions and achievement by manipulating the task and the context of learning.

There have also been several criticisms of the 'approaches to learning' perspective. One argument is that this perspective pays too much attention to the learning context and too little attention to the importance of student context such as cognitive issues, gender and past experience (Cuthbert, 2005). Therefore it is considered to have greater impact on teachers to improve their practice (Prosser & Trigwel, 1997). Similarly a longitudinal study conducted by Case and Gunstone (2003) pointed out the limitations of the approaches to learning perspective in ignoring the influence of students' emotional condition, awareness, control, motivation, and end goals.

Haggis (2009, p. 34), in his review of the student learning research over four decades published in the higher education journals, states that approaches to learning research has dominated non-North American higher education contexts until very recently and has had enormous importance and impact on the study of student learning, but this focus has been developed at the expense of a range of other approaches to research which potentially have a great deal to contribute to the many research questions generated by contemporary higher education contexts.

Similarly, I am concerned about the limitations of our understanding that results from these studies that rather narrowly conceive of the students' learning experiences. My study is designed to explore how students perceive their learning experiences, taking into account personal factors such as gender, motivational beliefs and future plans.

2.3.1.2 Alienation and engagement perspective.

In response to the criticism of the limited scope of the approaches to learning perspective, Mann (2001) proposed the concepts of alienation and engagement and argued that these provide a broader and more contextualized picture of the learning experience. The concept of alienation has been very narrowly defined in the literature. Several authors (e.g.Case, 2008; Mann, 2001) have referred to the concept of alienation as "the state or experience of being isolated from a group or an activity to which one should belong or in which one should be involved"[1]. In explaining the concept of alienation, Mann (2001) pointed out that several factors, such as current socio-cultural conditions, pre-existing experiences, cost to the individual, loss of creativity, distribution of power, and assessment practices lead to student alienation while learning in higher education. He argued that we should reframe our view of students' experiences of learning, from a focus on surface/strategic/deep approaches to learning to a focus on alienated or engaged experiences of learning in higher education.

In contrast to alienation, engagement is concerned with the point of intersection between individuals and things that are critical for learning (Coates, 2006). While discussing the concept of engagement Fredricks, Blumenfeld and Paris (2004) refer to three types of engagement: behavioural engagement, emotional engagement and cognitive engagement, with each type being associated with positive academic outcomes and persistence in education. Several factors such as classroom structure, relationship

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[1] Oxford English Dictionary

with peers and teachers, nature of task, assessment type, autonomy and support in learning, previous grades, family background and available facilities are considered to have an impact on the nature and quality of engagement in learning (Case, 2008; Fredricks, et al., 2004).

The concept of student engagement is considered to be a useful means for assessing and responding to the significant dynamics, challenges and opportunities facing higher education institutions (AUSSE, 2008). This concept has recently gained considerable significance in the discussions about quality in education (AUSSE, 2008; Fredricks, et al., 2004) and important reflections of this are to be found in the USA National Survey of Student Engagement (NSSE) (NSSE, 2003) which started in 1999 and the Australian Survey of Student Engagement (AUSSE, 2008) conducted for the first time in 2007. Although AUSSE and NSSE provide insights into student learning in higher education by evaluating the experiences of academic challenge, active learning, relationships with staff, learning support and work integrated learning, they do not take account of motivational beliefs of the students, and how these impact on the students' experience of learning in higher education.

Though the concepts of alienation and engagement as discussed above provide a useful picture of aspects of student learning in higher education, the critical dimensions of how the students' experience is formed and the students' motivational profiles are not taken into account. Despite a great deal of knowledge and research about engagement there are several gaps in the literature and the definitions of the construct, measures and research designs do not capitalize on what the concept of engagement can offer about

learning (Fredricks, et al., 2004). Therefore students' experiences of learning and motivational beliefs need further exploration.

The role of motivation in learning has been well established through extensive research at almost all educational levels (Eccles, et al., 1993; Pintrich & DeGroot, 1990; Schunk, 1982). Though the perspectives discussed above take into consideration various aspects of learning in higher education, the relationship and influence of motivational beliefs on the experiences of learning in higher education needs further exploration and research.

2.3.1.3 Experiences of learning from the perspective of motivational beliefs.

In higher education, the experiences of learning can only be partially understood if the motivational beliefs of the students are not taken into account. As discussed in the previous sections, motivation is one of the most important components of learning and it can influence almost all aspects of student learning and academic achievement. There is thus a need to explore students' experiences of learning in the context of motivation for learning.

2.3.2 Measuring students' learning experiences.

The following section discusses various methods and instruments that have been used to secure students' feedback on their learning in higher education. It particularly focuses on the Course Experience Questionnaire (CEQ) as a measure of students' experiences of learning.

One of the earliest studies on students' views of their learning mentioned by the current literature on higher education is that conducted by Ramsden at the University of Lancaster, UK, in 1976, which set out to identify the components of the learning environment from the students' points of view. Using a combination of interviews and questionnaires for second year students in six university departments and the School of Independent Studies, 8 dimensions of their learning experience (relationship of teachers with students, commitment to teaching, workload, teaching methods, vocational relevance, social climate, clear goals and standards, and freedom in learning) were delineated. Indeed, in the recent literature on learning in higher education, the construct of 'course experience' is used to describe similar dimensions of students' experiences of learning (see for example (Byrne & Flood, 2003; Diseth, 2007; Diseth, et al., 2006; Richardson, 2005; Trigwell & Prosser, 1991; Wilson, et al., 1997). The course experience questionnaire is one of the most widely used instruments for evaluating learning experiences (Ashenden & Milligan, 2002; Ginns, Prosser, & Barriea, 2007).

In 1981 Ramsden and Entwistle devised the Course Perceptions Questionnaire (CPQ) to measure students' experiences of particular degrees, courses and departments. The CPQ was modified by Ramsden in 1991 to yield a Course Experience Questionnaire (CEQ), designed specifically as a performance indicator (PI) for monitoring the quality of teaching on individual programmes of study at Australian universities. The CEQ is based on the development of work originally carried out at Lancaster University in the 1980s. It is founded on a theory of university teaching and learning in which students' perceptions of curriculum, instruction and assessment are regarded as key determinants

of their approaches to learning and the quality of their learning outcomes (Entwistle & Ramsden, 1983; Ramsden, 1991; Wilson, et al., 1997). The CEQ instrument was designed to measure differences in the quality of teaching between comparable academic organizational units in those important aspects of teaching about which students have direct experience and are therefore validly able to comment (viz. quality of teaching, clear goals and standards, workload, assessment, emphasis on independence (Wilson, et al., 1997). The CEQ was initially piloted on 3,372 final-year undergraduate students at 13 universities and colleges of advanced education in Australia by a group set up by the Australian Commonwealth Department of Employment and Training to examine performance indicators in higher education (Ramsden, 1991).

The first version of the CEQ (CEQ 30), used in the initial trail, consisted of thirty items in five scales, which have been identified in research as reflecting the different dimensions of effective instruction: *good teaching* (8 items), *clear goals and standards* (5 items), a*ppropriate work load* (5 items), *appropriate assessment* (6 items) and *emphasis on independence* (6 items). However the most widely used version of the CEQ is the short form with five scales and 23 items. The *emphasis on independence* scale due its comparatively weaker scale structure was not included in this short form and a new scale measuring *generic skills (*6 items) was added (Wilson, et al., 1997). In 1999 a project was conducted to prepare an extended form of the existing CEQ to include measures of the broader aspects of the student experience while maintaining the integrity of the original instrument. As a result of this project, five additional scales, *student support* scale (SSS), *learning resources* scale (LRS), *learning community* scale (LCS),

graduate qualities scale (GQS) and *intellectual motivation* scale (IMS), which comprised 25 new items were developed and proposed as suitable for inclusion in an extended CEQ (McInnis, et al., 2001).

The CEQ was originally devised to measure graduates' perceptions of the quality of their degree programmes, but was considered to also be able to be used to monitor the perceptions of currently enrolled students (Ginns, et al., 2007) and to collect feedback on particular course units and in different academic disciplines (Devlin, 1999; Lawless & Richardson, 2002; Prosser, Ramsden, Trigwell, & Martin, 2003; Richardson, 2003, 2005; Webster, Chan, Prosser, & Watkins, 2009).

Evidence concerning the reliability and validity of the different versions of the CEQ has been obtained in the Australian trial (Ramsden, 1991) and in the research carried out in individual universities in Australia (Trigwell & Prosser, 1991) and Britain (Richardson, 1994), in Canada (Kreber, 2003), in Hong Kong (Law & Meyer, 2011) and was also used with Irish accounting students by Byrne and Flood (2003). Wilson (1997) found a higher order structure of the CEQ, consisting of teaching quality factor (good teaching, clear goals and standards, generic skills and appropriate assessment and work load factors). Similarly other studies (Ramsden, 1991; Trigwell & Prosser, 1991; Wilson, et al., 1997) have shown that factor analysis of the scores on CEQ scales produced a single higher order factor measuring the perceived teaching quality. Therefore a single global measure of teaching quality can be derived from CEQ (Richardson, 1994). According to Richardson (2005) " the construct validity of the CEQ according to factor analyses on respondents' scores on the constituent scales is broadly

satisfactory. The modal solution is a single factor on which all of the scales show significant loadings" (p.396).

The five new scales noted above have also been tested yielding high levels of validity and reliability (McInnis, et al., 2001). In his review of the CEQ, Richardson (2009) has also supported its qualities of validity and reliability. However most of these reviewed studies were conducted mainly in Australia, Britain and Canada. However Richardson (2009, p. 204) has also pointed out that the reliability and validity are not absolute properties of the questionnaire and therefore the reliability and validity of the CEQ have to be confirmed in each specific context. Indeed, a recent study of adaptation of the CEQ in the context of post-secondary education in Hong Kong revealed differences in these properties compared with other contexts, though these were not sufficient to invalidate the use of the instrument; the values of coefficient alphas were found to be satisfactory for *good teaching* scale ($\alpha= .77$) marginally acceptable for *appropriate workload* ($\alpha=.55$) and *appropriate assessment* ($\alpha=.60$) scales and unsatisfactory for *clear goals and standards* ($\alpha= .23$) scale (Law & Meyer, 2011).

As mentioned above empirical research has thus documented the extensive use and the qualities of validity and reliability CEQ. For this reason, CEQ was considered to be an appropriate instrument for evaluating the experiences of postgraduate students at the University of the Punjab, Pakistan, while still testing its reliability and validity in this context.

2.3.3 Course experiences and academic achievement.

Several research studies using the CEQ have examined the relationship between approaches to studying, experiences of learning and academic outcomes (Diseth, 2007; Diseth, et al., 2006). A close relationship between Course Experience (CE) and Students Approaches to Learning (SAL) has been found (Lawless & Richardson, 2002). Associations have also been found between approaches to learning and CEQ measures of Appropriate Assessment and Good Teaching (Long & Hillman 2000; Ramsden, 1998). However the relationship between course experience and academic achievement has been less studied, even though Richardson (2003) found a correlation between overall measure of perceived course experience and assigned marks for course work (r = 0.46). Similarly, Lizzio et al. (2002) found that the CEQ factor 'good teaching' significantly predicted GPA among several faculties. In a recent study Diseth et al. (2006) investigated the relationship between course experience and approaches to learning and examined their relative importance as predictors of academic achievement. Correlation analysis showed most of the course experience variables, except for 'clear goals and standards' were significantly related to examination grades.

The limited research investigating the relationship between motivational beliefs of the students and their course experiences at postgraduate level establishes the need for and importance of investigating the relationship among the students' motivational beliefs, their course experiences and academic achievement.

Given the relationships between the course experiences, approaches to learning. and academic achievement it was assumed that the course experiences may have a relationship with the academic achievement and motivational beliefs of the postgraduate students at the University of the Punjab.

2.3.4 Gender, disciplinary context and course experiences of students.

Several research studies (Grebennikov & Skaines, 2009; Law & Meyer, 2011; Meyer, Dunne, & Richardson, 1994; Richardson & King, 1991) have reported gender differences in the attitude to, expectations from and experiences of learning in higher education, and women are generally found to be taking higher education more seriously than men (Grebennikov & Skaines, 2009, p. 71). For example Richardson and colleagues (2007), in their analysis of data on the National Student Survey found that women tended to produce higher scores than men on almost all scales measuring aspects of student experience.

Grebennikov and Skaines (2009) performed an analysis of data obtained by three surveys conducted at the University of Western Australia, and reported that female students place generally greater importance on a majority of both academic and non academic aspects of their program than males. On CEQ female graduates rated higher on *appropriate assessment* than males, whereas male graduates rated higher than females on generic skills scale, clear goals and standards scale, and student support scale. However, no significant difference across gender was found for the *good teaching* scale.

In a study of importance placed by incoming university students on the services, significant gender differences were revealed on seven of twelve survey items, and of these seven, females rated six higher than males. These items were about awareness of career opportunities, career counselling, graduating in a timely fashion, opportunities to mature, assistants who clearly presented class materials and professor assistance outside of class (Anastasia, Tremblay Jr, Makela, & Drennen, 1999).

In the light of the results of previous studies and the importance of research on gender differences highlighted by various researchers (Grebennikov & Skaines, 2009; Richardson, 1994; Richardson & King, 1991), this study aimed to explore the gender differences in the course experiences of the postgraduate students at the University of the Punjab.

The importance of the distinctive nature of the academic disciplines in higher education/universities has been recognised by many researchers (Entwistle, 2005; Fraenkel & Wallen, 2000; Johnson & Christensen, 2008; Neumann, 2001) and academic disciplines are considered to be the life blood of higher education as they provide its main organizing base and social framework (Becher, 1994, p. 151). Several research studies have shown a chain of relationships linking concepts of learning, perceptions of teaching and learning, and the quality of learning outcomes (Fraenkel & Wallen, 2000; Ramsden, 1991, 1992; Rotgans & Schmidt, 2008; Webster, et al., 2009) and students' experiences of learning are considered to be a function of individual characteristics as well as a function of the course and department learning context including its teaching quality, course design and assessment (Fraenkel & Wallen, 2000).

The pilot data collected during the development of CEQ indicated strong and significant differences in the responses of the students from different disciplines (Ramsden, 1991, p. 138). According to Ramsden (1991, p. 139) the differences between disciplines in terms of culture and resources are so marked that comparisons between institutions should only be made within disciplines because factors such as varying academic cultures and staff-student ratios between fields form part of the context in which an academic unit (department) operates. The annual data from CEQ in the Australia have also consistently shown that students' learning experiences vary by university as well as by discipline of study and these differences have persisted (Patrick, Bedford, Romagnano, Bedford, & Barber, 2008). A review of the annual CEQ data shows that social science and humanities disciplines are highly rated on the Good Teaching scale, whereas science and engineering disciplines are relatively poorly rated (Patrick, et al., 2008, p. 97).

Disciplinary differences in students' evaluation of their teachers have been reported by several other studies, using different Instruments/scales such as Student Perceptions of Teaching Questionnaire (SPOT). It has been reported that science and mathematics students were more positive about the teaching they received than were the students in arts/humanities/social sciences and content differences between disciplines influenced both teachers approaches to teaching and students' expectations (Santhanam & Hicks, 2002). Similar conclusions have been proposed in Becher's (1994) view of disciplinary differences, when he argued that there are significant differences between disciplines in teaching techniques and students' learning needs. It has also been

suggested that attempts to improve students' learning experiences must take account of these contextual differences (Knight & Trowler, 2000) as the discussion grounded at subject level enables to explore contextual and resource issues impacting on student experiences (Patrick, et al., 2008, p. 106).

Due to the importance of the disciplinary differences as highlighted by various researchers (Becher, 1994; Fraenkel & Wallen, 2000; Johnson & Christensen, 2008; Neumann, 2001; Neumann & Becher, 2002; Patrick, et al., 2008) this study also aimed to explore differences in students' course experiences in various disciplines/departments of study at the University of the Punjab, Lahore.

2.4 Role of Future Goals and Future Time Perspective in Student Motivation and Learning

As discussed in previous sections there has been a surge in university enrolments worldwide as well as in Pakistan during last two decades which makes us think about what motivates these students to go to university and do a postgraduate degree. It is a common observation that all human activities are driven by the motivational force of present goals and future goals. According to McInerney,(2004, p. 141) "a sense of purpose for the future is important in motivating individuals to engage in activities perceived to be instrumental in achieving valued future outcomes".

In the literature on future life goals the concept of future time perspective has been most widely used and referred to. Future time perspective (FTP) refers to the mental representation of the future constructed by individuals at certain points in their

lives; this perspective reflects both personal and social influences (Husman & Lens, 1999; Lens, 2001; Nurmi, 1991). Future time perspective serves as a basis for setting personal goals and life plans and helps in exploring future options and taking major decisions (Seginer, 1992). The extension of future time perspective as well as how future goals are prioritised is influenced by the culture, values of the society, opportunities available, parental influence, technology, spirituality, gender and society's expectations of boys and girls (McInerney, 2004; McInerney, Liem, Ortiga, Lee, & Manzano, 2008; Nurmi, 1991). Moreover the nature of the future that individuals articulate for themselves is also influenced by the rapidly changing world around them (McInerney, 2004).

Future time perspective has been conceptualized as having two aspects, a cognitive aspect or instrumentality and a dynamic aspect or valence (Leondari, 2007). Instrumentality refers to an individual's recognition that his or her current behaviour is instrumental to achieving a valued future goal (DeVolder & Lens, 1982). This instrumentality aspect is considered to be very similar to utility value in achievement motivation theory. The utility value is defined as "the importance of task for some future goal that might itself be somewhat unrelated to the process nature of the task at hand" (Eccles, 1984, p. 90). According to Eccles(1984),

> utility value can be contrasted with interest value, i.e. inherent, immediate enjoyment one gets from an activity. Utility value can be considered to be a form of extrinsic motivation and interest value a form of intrinsic motivation (Eccles, p. 89).

In the context of social cognitive theory, Miller and Brickman (2004) proposed a model of future-oriented motivation and self-regulation, saying that students who are committed to their future goals will regulate their learning effectively as future goals give meaning to school tasks, tasks that are set in a future context (for example career, contribution to society) have high instrumental value and therefore enhance the motivational value, self-regulation and achievement.

Research has also shown that the perceived instrumentality of a present task for future goals can enhance motivation for the task (Simons, Vansteenkiste, Lens, & Lacante, 2004), influence educational attainment (Lens, 1987), engagement and persistence in task (Lens, Simons, & Dewitte, 2001) and task choice (Eccles, et al., 1983). Research on future time perspective has also supported that students with a positive perspective of the instrumentality of school work to reach future career goals are more motivated for school tasks, use effective learning strategies, work harder and perform better in academic tasks (Phalet, Andriessen, & Lense, 2004). Future goals play an important role in giving a sense of purpose and direction to activities (Miller & Brickman, 2004). In other word students' academic learning is guided by the perceived relevance or utility of schooling/education for pursuit of future goals (McInerney, et al., 2008, p. 270).

Most of the research on life goals and its relationship with academic motivation and achievement has been conducted with adolescents and school aged groups, generally in western contexts. It has been found that the goals that adolescents set for themselves influence their actual achievement (Phinney, Baumann, & Blanton, 2001). However

there is an emphasis on the need for conducting research in non-western cultural contexts (McInerney, et al., 2008).

This study aimed to explore the reasons why postgraduate students were doing their current degree and what their future plans were so that their course experiences and motivational beliefs may be better understood in the context of their future plans.

2.5 Theoretical Framework for the Study

Based on the review of theories and research on student motivation and course experiences in the previous sections, the following model (see Figure 2.1) was developed to guide this study; it explains the relationship of the study's main constructs, namely, students' motivational beliefs, course experiences and academic outcomes.
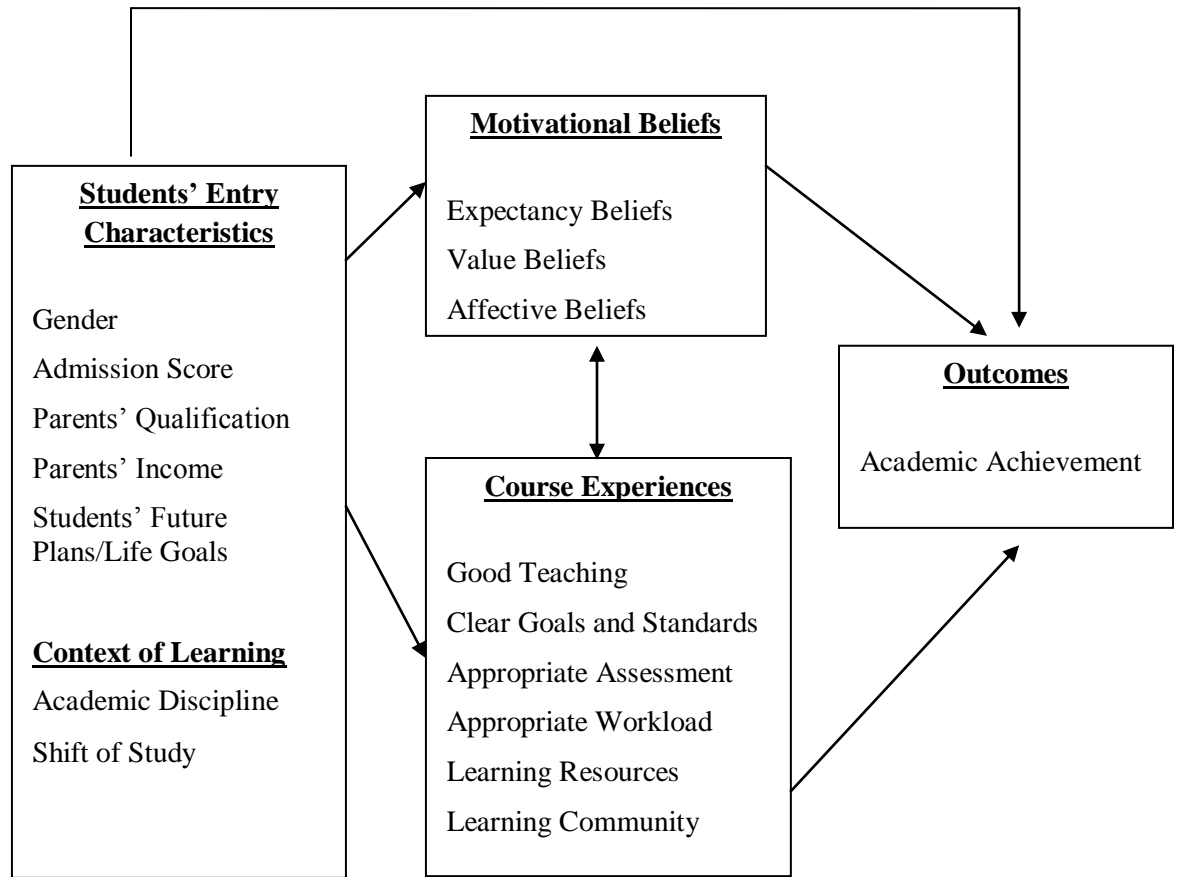
Figure 2.1. A general model of motivation and course experiences

This model proposes that certain personal characteristics such as gender, admission scores, parents' income and qualification and students' life goals or future plans, along with context of learning, help to shape/ influence students' motivational beliefs and their course experiences, which in turn influences outcomes such as academic achievement. In line with the social cognitive perspective, this model also assumes that the relationships between components of motivational beliefs and course experiences are reciprocal and, thus, can mutually influence one another.

Chapter 3
Methodology

This chapter presents the methodology used in this study. In particular, the research design, population, sample selection, research instruments, data collection and data analysis.

3.1   Research Design

A survey research design that was cross-sectional in nature was used in this study. A cross sectional design involves collection of data at one point in time in order to examine current attitudes, beliefs, or practices. It allows comparison between two or more groups in terms of attitudes, beliefs or practices (Creswell, 2008, p. 289; Gay & Airasian, 2006, p. 162). Surveys allow the collection of a detailed description of the phenomena under study with the intent of employing data to justify current conditions and practices or to make suitable plans for improving them (Dalen, 1979; Fraenkel & Wallen, 2000; Gay & Airasian, 2006). The data on the motivational beliefs and course experiences of students were collected at the end of the second last semester of their postgraduate degree at the University of the Punjab, Lahore, Pakistan (i.e. cross sectional research design). It was assumed that students would be able to comment better about their motivational beliefs and course experiences near the completion of their postgraduate degree.

Questionnaires are the most commonly and widely used means of collecting information from students in higher education (Leckey & Neill, 2001; Watson., 2003). Moreover questionnaires are considered to be a relatively unobtrusive, inexpensive and

easy means of gathering representative quantitative data compared with other methods such as individual observations or interviews (Gay & Airasian, 2006). A review of the literature on student learning and motivation in the previous sections showed that students' self-report surveys are the most widely and effectively used method for evaluating students' motivational beliefs and course experiences (Biggs, 1987, 2003; Ginns, et al., 2007; Marsh, 1987; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Ramsden, 1991, 1998; Richardson, 2005; Wilson, et al., 1997). Therefore a paper-based questionnaire was considered to be the most appropriate tool for collecting information about students' motivational beliefs, course experiences and future plans/life goals in the current study. Self-administered, paper-based questionnaires tend to have higher response rates than postal and online surveys (De Vaus, 2002). In the current study a paper-based questionnaire was considered to be most appropriate because not all the students at the university of the Punjab have access to computers and internet. Furthermore the questionnaire for the study was administered at the end of the semester just before the final examination so that the level of students' test anxiety can be explored, and their likelihood of respond frankly on this and other aspects was best guaranteed by a self-administered, questionnaire.

This study involved five groups of variables: motivational beliefs, course experiences, academic achievement, parents' SES, and future plans of the students. In addition to these main variables, information about participating students' demographic profile and background factors was collected. These variables and their measures are explained in detail in the following sections.

3.1.1 Motivational beliefs.

Students' motivational beliefs were measured by using the three motivational components (comprising six motivational scales/31 items) of *value, expectancy* and *affec*t from the *Motivated Strategies for Learning Questionnaire* (MSLQ) (Pintrich, et al., 1993). As mentioned in Chapter Two, it should be noted that the MSLQ was developed by a team of researchers from the National Centre for Research to Improve Post-secondary Teaching and Learning and the School of Education at the University of Michigan (Pintrich, et al., 1993). Three motivational components of MSLQ (value, expectancy and affect) were used to measure the motivational beliefs of the students. The value component included the constructs *intrinsic goal orientation* (Intr), *extrinsic goal orientation* (Extr), and 'task value'(Taskv), the expectancy component included the constructs *control of learning* beliefs (Cont) and *self-efficacy for learning and performance* (Slfef) and the affective component included *test anxiety* (Tanx). The definitions of these motivational constructs are given below

3.1.1.1 Value components.

<u>Intrinsic Goal Orientation:</u> Goal orientation referred to the student's perceptions of the reasons why he/she was engaging in a learning task. On the MSLQ, goal orientation referred to student's general goals or orientation to the course as a whole. Intrinsic goal orientation concerns the degree to which the student perceived herself/himself to be participating in a task for reasons such as challenge, curiosity, and mastery. Having *intrinsic goal orientation* towards an academic task indicated that the student's

participation in the task is an end in itself, rather than participation being a means to an end.

Extrinsic Goal Orientation: *Extrinsic goal orientation* referred to the degree to which the student perceived himself/herself to be participating in a task for reasons such as grades, rewards, performance, evaluation by others and competition. When one is high on *extrinsic goal orientation*, one is engaging in a learning task as a means to an end. The main concern the student has is related to issues that are not directly related to participating in the task itself (such as grades, rewards, comparing one's performance to that of others). This referred to a general orientation to the course as a whole.

Task Value: *Task value* referred to students' perceptions of the course material in terms of interest, importance and utility.

3.1.1.2 Expectancy components.

Control of Learning Beliefs**:** *Control of learning* referred to students' beliefs that their efforts to learn would result in positive outcomes. It concerned the belief that outcomes were contingent on one's own efforts, in contrast to external factors such as the teacher.

Self-Efficacy for Learning and Performance: *Self-efficacy* referred to a self-appraisal of one's ability to master a task. Self-efficacy included judgments about one's ability to accomplish a task as well as one's confidence in one's skills to perform that task. Expectancy for successes referred to performance expectations, and related specifically to task performance.

3.1.1.3 Affective component.

Test Anxiety: *Test anxiety* had two components, a worry, or cognitive component and an emotionality component. The worry component referred to students' negative thoughts that disrupt performance, while the emotionality component referred to affective and physiological arousal aspects of anxiety.

The 31 items on six motivation scales, presented in a random order, required students to rate themselves on a seven point Likert scale from 'not at all true of me' (1) to 'completely true of me' (7). A list of the 31 items used in the questionnaire along with their designated scales on MSLQ is given in Appendix A. The data for the current study were collected at the end of the second last semester of the postgraduate degree and students were asked to report their motivational beliefs in the context of the specific course/ module in which the survey was administered. It should be noted that the term 'course' is used in this thesis to donate a semester length class , which in other educational contexts may be called a subject or a unit.

3.1.2 Course experiences.

Students' course experiences referred to the students' perceptions about the quality of teaching, content of study, assessment, facilities and resources available, as well as the quality of their relationship with teachers and other students. These views were reflected by students' responses to 27 questions related to six scales. Four scales, the *good teaching* scale (GTS), *clear goals and standard* scale (CGSS), *appropriate workloa*d scale (AWLS), *appropriate assessment* scale (AAS) belong to the CEQ 23 developed by

Wilson, Lizzio, and Ramsden (1997), whereas the other two scales, the *learning resources* scale (LRS) and *learning community* scale (LCS*)* were adopted from a revised version of the CEQ developed by McInnis, Griffin, James, and Coates (2001)The course experience scales and their use are described below.

3.1.2.1 Good Teaching Scale (GTS).

The *good teaching* scale assessed the degree to which students feel that the teaching staff of their course provided a high level of teaching quality. Specifically, higher scores were achieved when students felt they received adequate feedback on their progress, that the course was presented in an interesting and motivating manner and when teaching staff were perceived to have made an effort to understand students' problems and attempt to explain things clearly.

3.1.2.2 Clear Goals and Standards Scale (CGSS).

The *clear goals and standards* scale assessed the degree to which students felt they were provided with enough information regarding the learning objectives of their course and the standards of work expected from them.

3.1.2.3 Appropriate Assessment Scale (AAS).

The *appropriate assessment* scale evaluated the extent to which courses depended on the recollection of factual knowledge for assessment purposes. Students were asked to indicate if they felt their assessment was overly concerned with the memorisation of

facts, with higher scale scores indicating less reliance on factual recall and a greater focus on higher order learning.

3.1.2.4 Appropriate Workload Scale (AWS).

The *appropriate workload* scale assessed the degree to which students felt the workload involved in their course was excessive or appropriate, with higher scores related to greater appropriateness.

3.1.2.5 Learning Resources Scale (LRS).

The *learning resources* scale also assessed student support services, but focused more on the library and information technology resources. Also included in this scale are the quality of course-related materials and the availability of study resources.

3.1.2.6 Learning Community Scale (LCS).

The *learning community scale* measured the sense of community experienced by students whilst studying a course. A learning community refers to an environment in which students felt they were encouraged to explore new ideas and were encouraged to share knowledge in an intellectually stimulating setting. The scale assessed not only the degree to which graduates perceived the presence of a learning community, but also the extent to which they felt they belonged to that community.

The 27 items of the course experience scales, presented in a random order, required students to indicate their relative agreement to the quality of their course

experiences on a five point scale as follows: 5 (strongly agree), 4 (agree), 3(neutral), 2 (disagree), 1 (strongly disagree).

A list of 27 course experience items used in the questionnaire along with their designated scales is given in Appendix B. As mentioned earlier, in Chapter Two, in its original form the CEQ required students to report on their perceptions of the teaching quality of a program after its completion, it has also been used to collect student feedback within a shorter time span such as at a module-specific level (Richardson, 2005, p. 398) and at the end of a semester (Law & Meyer, 2011, p. 54). The data for the current study were collected at the end of the second last semester of the postgraduate degree and students were asked to report their perceptions of the quality of their experiences in the context of the specific course/ module in which the survey was administered.

3.1.3   Academic achievement.

Data on Students' Cumulative Grade Point Average (CGPA) and their examination marks in the course were collected to measure their academic achievement. Students were asked to write their admission score, and current CGPA in the questionnaire and the same was also obtained and reconfirmed by getting students' results from the students' records office. Students' achievement scores/examinations marks in the course were obtained from students' records. As the students in different departments were studying different courses, therefore only the examination marks in the course were used as a measure of academic achievement in the analysis of data. These marks represented

the sum of all marks attained in the midterm examination, final examination and term paper/assignment for the course in which the study was carried out.

3.1.4   Socio-economic status.

Several indicators were used to measure the socio-economic status of the students which included the monthly income of parents, and number of cars in the family, personal car ownership by the student, parents' highest educational qualification and monthly pocket money of the students. However in the light of the previous research (Sirin, 2005), and based on the students' responses, a score based on parents' combined monthly income and their highest educational qualification was used as the measure of socio economic status (see Section 3.2.7)

3.1.5   Future plans of students.

Future plans referred to students' plans about further study, getting married and having family, and career/ job preferences after completing their current degree. Three open-ended and one structured question were used to obtain information about the future plans of students. The open ended questions were, "I wanted to do my current degree because…;" "the career /job I would prefer after completing my current degree is:…;" and " I wanted to have this career /job because:…". Open ended questions were included to ensure that researcher did not influence students' responses in any way. It was anticipated that the qualitative responses to the open-ended items would allow a deeper understanding of how participants thought, and would allow unconstrained, unusual and unexpected responses to be communicated to the researcher (Bryman, 2004)

3.1.6 Demographic and background factors.

Demographic information/data consisted of participants' age, gender, university for their Bachelors degree, mode of examination for their Bachelors degree, faculty, department and shift of study (day or evening), admission score, residential arrangements, scholarships, paid work, and income.

3.1.7 Design and structure of the questionnaire.

In line with the main variables of the study as mentioned in the previous sections, the questionnaire for the study was divided into four parts. Part I comprised 22 questions that sought personal and demographic information. Questions about age, admission score, GPA, monthly income of parents and monthly pocket money were open-ended whereas questions about department of study, shift of study, residential arrangements, numbers of cars in the family, parents' educational qualifications, type of scholarship, and number of hours of paid work were structured using categorical responses.

Part II consisted of items about the three motivational constructs of expectancy, value and affect. Thirty one items from the six motivational scales (Intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs, self-efficacy for learning and performance and test anxiety) were arranged in a random order and required students to rate themselves on a seven-point Likert scale from 'not at all true of me' (1) to 'completely true of me' (7).

Part III comprised 27 items from six course experience scales (good teaching scale, clear goals and standard scale, appropriate workload scale, appropriate assessment scale, learning resources scale and learning community scale). These items were arranged in a random order and required students to indicate their relative agreement on a five point scale as follows: 5 (strongly agree), 4 (agree), 3(neutral), 2 (disagree), 1 (strongly disagree).

Part IV consisted of 3 open-ended questions (reasons for choosing the current degree, the career/job students would prefer to have after completing and the reason for choosing this career/job and future plans of the students) and one (common stem) question about the importance of various future activities (further study, further study in Pakistan and abroad, and getting married and having family) requiring students to indicate the importance on a five-point rating scale from 'not important' to 'very important'.

The medium of instruction at the postgraduate level in Pakistan is English, which allowed the use of the original language and format of the scales. However, clear instructions in English for the completion of the questionnaires, along with the explanatory statement were included to avoid confusion. A copy of the questionnaire is given in the Appendix C.

3.2   Participants of the Study

The generalisability of the results and hence the scope of the study is determined through the definition of the population of the study. The target population includes all

the members of a real or hypothetical set of people to which the researcher wishes to generalise the results of the research (Gall, Gall, & Borg, 2007, p. 389). The target population provides "an operational definition which is used to guide the construction of a sampling frame from which the sample can be drawn" (Ross & Rust, 1994, p. 428). For this study the target population consisted of all postgraduate students enrolled in final year of M.A/MSc degree in 13 faculties of the University of the Punjab Lahore, Pakistan.

The sample for the study was selected in three stages. Four faculties were randomly selected from the 13 faculties at the University of the Punjab, Lahore, Pakistan. These faculties were Science, Education, Behavioural and Social Sciences, and Economics and Management Sciences. All departments within these faculties that have at least 30 students enrolled in the morning and afternoon shifts of study were contacted and permission was sought from the director/head of the department to administer a survey. Within the four faculties, the researcher was given access to the departments of Gender Studies (DG), Mathematics (DM), Business Education (DBE), the Centre of English Language Teaching and Linguistics (CELTL), as well as to the Institute of Business and Information Technology (IBIT).

The potential participants were the 441 postgraduate students enrolled in the morning and afternoon shifts in the five sampled departments of the four faculties included in the study. The University of the Punjab offers two types of enrolment in the form of morning and afternoon shifts across the faculties sampled. The students enrolled in these shifts are different in terms of their admission scores and academic achievement

scores and these differences are elaborated in the next sections of this chapter. A great

majority (379) of the enrolled students (441) were present at the time of administration

of the questionnaire and of those present 368 (96 %) participated in the study. The

response rate for the morning shift was 96% (n = 191) and 98.33% (n = 177) for the

afternoon shift of study. Table 3.1 shows details of the participating departments and

students and response rates.

Table 3.1

Participating Departments, Students and Response Rate

Faculties	Departments	Shift	Students Enrolled	Students Present	Respondents	Response Rate %
Social and Behavioural Sciences	Gender Studies	M	37	33	31	93.94
		A	37	30	30	100
Economics and Management Sciences	Institute of Business and Information Technology	M	50	44	44	100
		A	50	38	35	92.11
Science	Mathematics	M	65	55	51	92.72
		A	67	65	65	100
Education	Business Education	M	42	35	33	94.29
		A	35	31	31	100
	English Language Teaching and Learning	M	35	32	32	100
		A	23	16	16	100
Total			441	379	368	97.10

The percentage of the of participants from the sampled departments the reflected the proportions of the total number of enrolled students in each department. Thirty one percent of the participants belonged to the Department of Mathematics (MD) and 21% from the Institute of Business and Information Technology (IBIT) and, 16.6 % from the Department of Gender Studies (DGS). Almost the same percentage 17.4 % participated from the Department of Business Education (DBE) and 13% were from Centre for English Language teaching and Linguistics (ELTL)
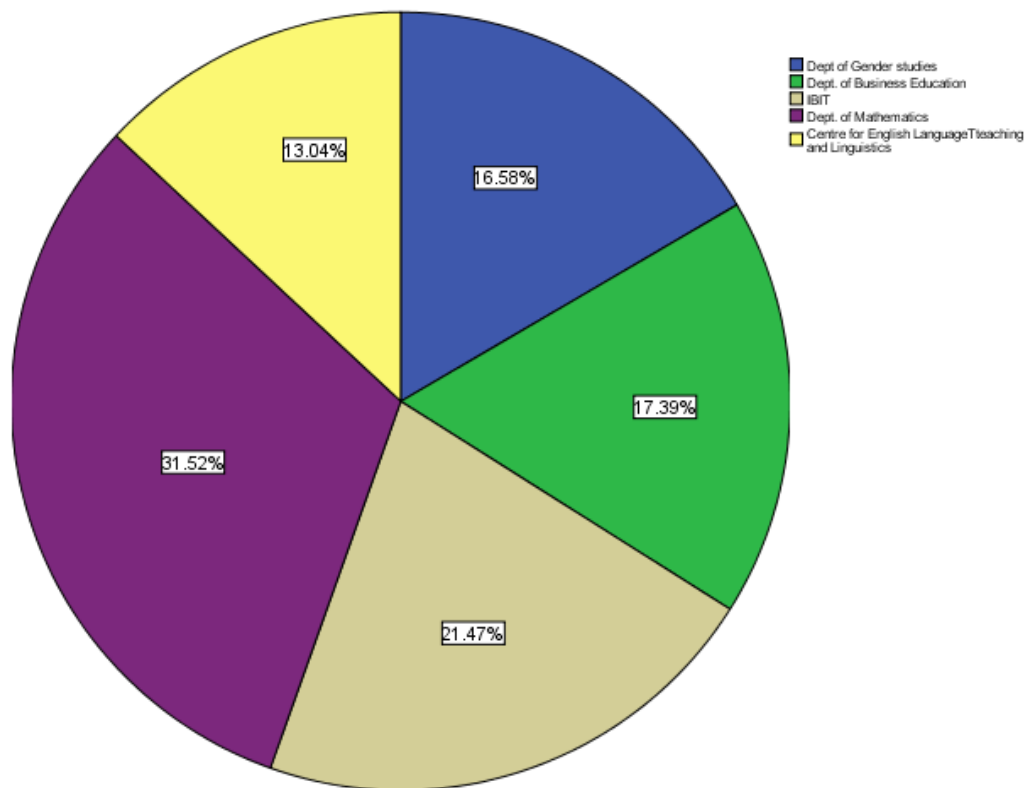
Figure 3.1. Distribution of participants across departments.

3.2.1 Gender distribution in the sample.

Females represented 64% (N= 235) of those sampled (N = 368), a figure comparable with the overall participation rate of females (53%) in higher education (MA/ MSc degree) in Pakistan (Government of Pakistan, 2003). All departments had a higher percentage of females than males participating except the IBIT (65.8% male) and the Department of Business Education, which had an almost equal percentage of male (48.4%) and female (51.6%) participants. The Centre for English Language Teaching and Linguistics (CELTL) had the highest percentage of females (93.8%), with only three males. The Department of Gender Studies (DGS) had only five males and 91.8 % females. Similarly the Department of Mathematics (DM) had more female participants (63.8%). All sampled departments follow an open merit admission policy and do not have a fixed number of admission seats for male and female applicants separately. The higher percentages of female students indicate the popularity of the three subjects Gender Studies, English Language Teaching and Mathematics among females whereas business related subjects are comparatively more popular among males than females.

3.2.2 Age of participants.

The average age of the participants was 22.45 years (SD = 2.12), with the youngest age being 19 years (n=1) and the oldest age 40 years (n=1). An independent –samples t-test showed that there was significant difference in the mean age of males (M = 23.05, SD = 1.86) and females (M = 22.11 SD = 2.18), t (363) = 4.15, p=.001. The magnitude of the

differences in the means (mean difference =.93, 95% CI: 1.36 to 1.38) was small (eta squared = .04). There was also a significant difference in the average age for the morning shift (*M* = 22.13, *SD* = 1.79) and afternoon shift (*M* = 22.79 *SD* = 2.36), t (363) = 3.05, *p*<.002. However the magnitude of the differences in the means (mean difference = -.67, 95% CI: -0.24 to -0.23) was very small (eta squared = .02). This showed that slightly older students were enrolled in the afternoon shift which had relaxed age restrictions on admission to facilitate access for in-service and mature aged applicants. The age limit for admission to the morning shift was 26 years in all sampled departments, whereas there was no restriction on age for admission to the afternoon shift.

3.2.3   Entry characteristics of the participants.

3.2.3.1 University for Bachelors Degree (B.A/B.Sc.)

The majority (83.4%) of the participants had graduated from the University of the Punjab Lahore, with 91% in DGS, 89.1 % in the DBE, 81.2% in CELTL and 80 % in the DM. However in the IBIT, 78.5 % (n =62) of the participants had received their Bachelors degree from the University of the Punjab, 8.9% (n = 7) from the Government College University Faisalabad, 6.3% (n = 5) from the Government College University Lahore and only 5.1% (N = 4) from the Bahauddin Zakariya University Multan.

There are 10 general public universities in the province of Punjab. Quaid-e-Azam University Islamabad is ranked number one and the University of the Punjab is ranked 2nd among the 24 general public universities of Pakistan. The above findings are

a confirmation of the prestige of the University of the Punjab as regards the performance of the students in their Bachelors degree. Graduates of the University of the Punjab gained admission because they scored higher on the admission criteria as compared to the graduates of the other universities in the province of Punjab. The admission criteria are the same for the graduates of all universities.

3.2.3.2 Mode of examination in Bachelors Degree.

In Pakistan students generally have to go through an annual system of examination until completion of their Bachelors degree (14 years of education), whereas at the postgraduate level at the University of the Punjab they have to go through a semester system of examination of which they have no prior experience. The majority of the participants (95.9%) had experienced the annual system of examination during their Bachelors degree and only a small minority (4.1 %) had experienced a semester system of examination. However in IBIT, 9% of participants had been through a semester system of examination. Only the DBE and CELTL, in the Faculty of Education, set different admission criteria for those who have passed their B.A/B.Sc. examination under the semester system and their marks in B.A. /B.Sc. are multiplied by 0.80 in order to equalize with the annual system.

3.2.3.3 Admission score of students.

Admission merit in all the departments was determined on the basis of 70% for the academic record and 30% for the score on the admission test. The details of the process and formula for calculating admission scores are given in Appendix D. An independent

samples t-test showed that there was a significant difference in the mean admission scores of males ($M = 62.32$, $SD = 7.22$) and females ($M = 59.72$, $SD = 7.29$), t (366) = 3.23, $p<.001$. The magnitude of the differences in the means (mean difference = 2.60) was small (eta squared = .03). No significant gender differences were revealed at the individual department level.

There was also a significant difference in the average admission score for the morning shift ($M = 64.27$, $SD = 6.23$) and afternoon shift ($M = 56.88$, $SD = 6.52$), t (366) = 11.12 $p= .001$ and the magnitude of the differences in the means was large (eta squared = .25). Significant differences in the admission scores of the morning and afternoon shifts were also noted in all sampled departments. This indicated that more capable students were admitted to the morning shift as compared to the afternoon shift of study. This is because the afternoon shifts have comparatively lower admission criteria and the afternoon shifts were introduced in the university with the intention of catering for those students who had failed to get admission in the morning shifts.

The mean admission score was the highest ($M = 67.37$, $SD = 4.31$) for the IBIT with the lowest being for the DGS ($M = 56.79$, $SD = 6.37$). A one way analysis of variance was conducted to explore the difference in the admission scores across the sampled departments as shown in Table 3.2.

Table 3.2

Summary of ANOVA of Admission Score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5252.66	4	1313.17	32.53	.000
Within Groups	14652.32	363	40.37		
Total	19904.98	367			

There was a statistically significant difference in the admission scores for the five departments, with $F(4,363) = 32.53$, $p<.05$, with the effect size calculated using the eta squared being 0.26, which is a large effect (Cohen, 1988, pp. 284-287). The post hoc comparisons using the Tukey HSD test as shown in Table 3.3 indicated that the mean admission score for the department of gender studies($M = 56.57$, $SD = 6.37$) was significantly different from the Institute of Business and Information Technology(IBIT) ($M = 67.37$, $SD = 4.31$) and the Department of Mathematics(DM) ($M = 60.24$, SD $=7.81$). The Department of Business Education ($M = 59.67$, $SD = 4.51$) differed significantly from IBIT. The IBIT had the highest mean admission score ($M= 67.37$, SD $= 4.31$) and Tukey HSD indicated that this mean score was significantly different from all other departments. Similarly the mean admission score for the department of Mathematics was significantly different from DG, CELTL.

Table 3.3

Multiple Comparisons Using Tukey Post Hoc

Department (I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
DGS	DBE	-3.10	1.13	.05	-6.2	.018
	IBIT	-10.79*	1.08	.00	-13.76	-7.83
	DM	-3.66*	1.00	.00	-6.41	-.91
	CELTL	-.56	1.22	.99	-3.92	2.79
DBE	DGS	3.09	1.13	.05	-.02	6.22
	IBIT	-7.69*	1.06	.00	-10.62	-4.77
	DM	-.56	.98	.98	-3.27	2.15
	CELTL	2.53	1.21	.23	-.79	5.86
IBIT	DDS	10.79*	1.08	.00	7.83	13.76
	DBE	7.69*	1.07	.00	4.77	10.63
	DM	7.13*	.93	.00	4.59	9.67
	CELTL	10.23*	1.1	.00	7.04	13.42
DM	DGS	3.66*	1.00	.00	.91	6.42
	DBE	.56	.99	.98	-2.15	3.28
	IBIT	-7.13*	.93	.00	-9.68	-4.59
	CELTL	3.10	1.09	.04	.11	6.09
CELTL	DGS	.56	1.22	.99	-2.79	3.93
	DBE	-2.53	1.21	.23	-5.85	.79
	IBIT	-10.23*	1.162	.00	-13.41	-7.04
	DM	-3.09*	1.09	.04	-6.09	-.11

*The mean difference is significant at the 0.05 level.

3.2.4 Current cumulative grade point average (CGPA).

The evaluation system at the University of the Punjab has been discussed in detail in Section 2.1.

The average Cumulative Grade Point Average (CGPA) of the participating students at the end of the three semesters of study was 3.14, with individual scores ranging from 1.85 to 3.98 (SD = .44).There was no significant difference in the average CGPA of males (M = 3.16, SD = 0.44) and females (M = 3.13, SD = 0.44), t (366) = 0.69, p = 0.92. Similarly there was no significant difference in the average CGPA in morning (M = 3.18, SD = 0.44) and afternoon (M = 3.10, SD = .44) shifts, with t (366) = 1.76, p = 0.08. This indicated that there were no gender differences and shift differences in the current actual performance of the students, although, there were significant gender and shift differences at the time of admission.

3.2.5 Achievement score in the course of study.

As discussed in Section 1.1.3, the achievement score in all taught courses is based on at least one home assignment and two tests (Mid Semester and Final). Students were awarded marks out of 100 as an achievement score. The average achievement score for the participants of the study was 78.88 (SD = 9.65). No significant differences were noted between the achievement score of males (M = 79.11, SD = 10.91) and females (M = 78.74, SD = 8.87) with t (366) = 0.35, p = 0.73. Similarly no significant differences were noted between the average achievement score of students enrolled in the morning

(M = 78.95, *SD* = 8.57) and afternoon (*M* = 78.81, *SD* = 10.68) shifts of study, with *t*

(366) = 0.14, *p* = 0.89.

3.2.6   Residential arrangements by students.

Sixty-three per cent of the respondents were living in a house that was owned by their

family while 21.4% were living in hostel accommodation at Punjab University. More

females (70 %) than males (50.8%) were living in a family house, which was not

unexpected in the prevailing socio-cultural values and expectations, and more males

(27.8%) than females (17.6%) were living in the Punjab University hostel. Punjab

University has separate hostels for male and female students. Only the students enrolled

in the morning shifts of study are eligible to live in the Punjab university hostel.

Similarly, more males (10.6%) than females (6.9%) were living in private hostels run by

independent owners.

3.2.7   Socioeconomic Status (SES).

Initially six indicators were used to get an idea about the socio-economic status of the

students. Parents' monthly income, personal car ownership, parents' educational

qualifications, monthly pocket money, scholarships and paid employment. According to

Sirin (2005, p. 444), SES is a multidimensional construct and different components yield

different results. Three traditional components (income, education and occupation) are

most frequently used as a basis for the conceptualization of SES. In Pakistan, no well-

defined list of occupations exists at the government level therefore in the current study a

score based on the combined monthly income and educational qualifications of the

parents was calculated and used as a measure of socio-economic status for further

analysis (correlation analysis, see Section 7.3). Parental income reflects the potential of

social and economic resources that are available to students and parental education is

considered one of the most stable aspects of SES over time (Sirin, 2005, p. 419).

According to Sirin (2005) "placing restrictions on the range of the SES variable

significantly decreased the correlation between SES and academic achievement" (p.

434), therefore in the current study no categorical restrictions (such as low, medium,

high) were placed on SES scores. A brief description of results on all indicators of SES

appears below.

3.2.7.1 Monthly income of parents.

The monthly income of the parents was positively skewed, thereby indicating that most

of the parents had incomes in the lower categories. As shown in Table 3.4, 56.3 % of the

sample were in the low income group and had monthly incomes below 33,999 Pakistani

Rupees (PKR) which is equivalent to 400 AUD. In contrast, 36% came from the middle

income group. The average monthly income of a newly appointed university/college

lecturer in Pakistan is around 40,000 PKR (500 AUD) and for an office clerk it is around

25,000 PKR (300 AUD). Only a very small number (n= 13) had income above 154,000

PKR which is equivalent to 1,810 AUD. There was no significant difference in the

average monthly parental income of morning ($M = 35220.34$, $SD = 34766.42$) and

afternoon students ($M = 46242.58$, $SD = 69278.35$), t (330) = 1.87, $p = .06$ ($p>.05$). It is

quite interesting to note that although students in the afternoon shifts have to pay higher

fees when compared with students in the morning shifts, there was very little difference in the monthly income of their parents.

Table 3.4

Monthly Income of Parents

Income in PKR	f	Percentage (%)
Low (0 -33999)	187	56.3
Middle (34000-83000)	120	36.1
High(84000-153999)	15	4.5
Very High (154000 and above)	10	3.0
Total	332	100.0
Missing	36	
Total	368	

3.2.7.2 Car ownership.

The great majority (94. 32 %, n=332) of the respondents did not own a personal car. In response to a question about the number of cars in the family, 48.3% of the respondents reported that their family had no car, 38.5% had one car, 10.9 % had two cars, with just 2.2 % (n = 8) indicating that their family owned more than two cars. The percentage of respondents with no car in their family was highest (69.9%) in the Department of Mathematics whereas the percentage of respondents having one car was highest in the Department of Gender Studies. Though a very small number of respondents (n= 8) said that their family had more than two cars, three were enrolled in the Institute of Business and Information Technology and 3 belonged to Department of Business Education. This question was designed to tap aspects of socio-economic status in conjunction with parents' educational qualification and family income. Given that car ownership was very

low, it appeared that this was not a good indicator of SES differentiation and therefore was not included in the further analyses.

3.2.7.3 Educational qualification of parents.

Participants were asked to indicate the highest of eight levels of education completed by each of their parents separately by choosing from a list of educational qualifications, including, Primary, Middle, Matric, F.A/FSc, Bachelors degree, Masters Degree, M Phil and PhD. Each level on this scale was given 1 point yielding a total score ranging from 1 to 9. The mean education level for fathers was 5.63, equivalent to Bachelors (14 years of education) or Masters degree (16 years of education) whereas the mean education level for mothers was 4.70, equivalent to FA/FSc. (12 years of education) or Bachelors degree (14 years of education).

3.2.7.4 Pocket money.

Monthly pocket money reported by the respondents ranged from 30 PKR per month to 25000 PKR per month. Independent sample t tests showed that the average pocket money was higher for males ($M = 4066$) than for females (2391 PKR) $t(320) = 4.15$ $p > .001$.

Table 3.5

Monthly Pocket Money

Gender	N	Min	Max	*M*	*SD*
Male	105	30	25000	4066.95	3933.74
Female	217	50	13000	2391.01	1867.71

3.2.7.5 Scholarships.

Generally all departments offered two types of student scholarships, Merit Scholarships and Need Based Scholarships/Tuition Fee Waiver. A Merit Scholarship is for students who have demonstrated exceptional academic achievement on admission merit. In addition to the admission Merit Scholarship, IBIT also offers scholarships on performance in each semester. Need Based scholarships and Tuition Fee Concessions are available for needy and deserving students who establish their need by providing information about their family's financial condition. The number of these scholarships varies from department to department depending upon the available funds. The funding of these scholarships comes from the university budget, individual donors, Punjab University Alumni and other organizations. Only 16.2% (only 58 out of 358) respondents were receiving a university scholarship during their postgraduate study at the university. Forty eight per cent of scholarship holders (33 students) were on a Merit Scholarship and 32.4 % on a Need Based Scholarship. A very small percentage (14.1%,

N = 10) were recipients of some other type of scholarship such as Fuji Foundation and Benevolent Fund scholarships.

3.2.7.6 Paid employment in addition to studying at Punjab University.

The majority of the respondents 85.4 % were not employed. Of the 51 participants who were employed, twenty one were from the Faculty of Education, 13 from the Faculty of Economics and Management Sciences, and 5 from the Faculty of Behavioural and Social Science. Thirty seven per cent (N=23) of employed respondents worked less than 5 hours per week, 22.6 % (n =14) worked for 5-10 hours per week and a comparatively small percentage worked for 11-15hrs (19.4 %, N=12), 16-20 hrs (12.9% N=8) and more than 20 hours (8.1%, n =5) respectively. The average income of those who were doing a job was 9963.56 Rupees per month. Twenty of the employed students were from the afternoon shift and 31 from morning shift. 39 of the employed students lived with their family in their house and seven lived in hostels.

In the light of the previous research and relevant literature as discussed in Chapter Two, a score based on parents' combined monthly income and the educational qualification of both mother and father was calculated by giving an equal weight to income and educational qualification (Sirin, 2005). Previous research (Sirin, 2005, p. 439) has also shown artificially restricting students' SES into categories (such as Low, Medium, High) significantly reduces the magnitude of the interaction between SES and other continuous variables such as school achievement. Therefore for the current study the SES was not categorised and scores on this aspect were treated as continuous scores

in order to better explore the relationship between SES and three variables, motivational beliefs, course experiences and academic achievement.

3.3   Ethical Approval of the Study

After fulfilling the requirements, this study was granted ethical clearance by the Standing Committee on Ethics in Research Involving Humans (SCERH) at Monash University on 10 October 2008, Approval Number: CF08/2642 –2008001344 (See Appendix E).

3.4   Piloting of the Instruments

In order to estimate the time required for the completion of the questionnaire and to test the language of the open-ended questions, the questionnaire was administered to a group of 10 international postgraduate students (from India, Sri Lanka, Bangladesh and Pakistan)at the faculty of Education , Monash University, Australia. Some changes resulting from the feedback included replacement of the question about the importance of further study (Following your current programme of study how important is it for you to study further) with two separate questions about the importance of further study at a local institution and further study abroad, and the addition of the word 'job' to the questions about preferred career after completion of the current degree. These modified questions were: "Do you hope to get a career/job as a result of your current degree?"; "The career/job I would prefer after completing my degree is:" and "I have chosen this career/job because:".

3.5 Field Administration of Instruments and Collection of Data

The data for this study were collected in February 2009 just before the final examinations of the second last semester of study of the postgraduate students. Lecturers who were teaching in each of the departments were invited to participate in the study. Each class was taught by five different lecturers in that semester so a request was made to all lecturers teaching the class to provide access and to distribute questionnaires in the last 15 minutes of the class time before the lunch break, whenever it was possible for them to do so. Students who did not wish to take part were invited to leave early for their lunch break. The researcher personally explained the study and invited participation, answered questions, distributed and collected the completed questionnaires. The direct method of survey administration was used as it ensured a higher rate of response and provided the researcher with the opportunity to explain the study and answer any questions from the respondents (Fraenkel & Wallen, 2000).Three hundred and sixty eight participants completed the questionnaires. All questionnaires were checked for completeness and accuracy of responses. None of the questionnaires were discarded.

3.6 Analysis of Data

Reponses to closed-ended/ structured questions were coded. A coding manual was developed to guide the coding process and to ensure consistent categorization of responses. Codes were recorded in Excel spreadsheets and were imported into Predictive Analytics Soft Ware Statistics (PASW). Statistical analysis in this study was performed using Predictive Analytics Soft Ware (PASW) Statistics, version 17.02. Prior to its

acquisition by IBM in 2009, PASW was branded as the Statistical Package for the Social Sciences (SPSS).

Data from Part One (Demographic Information) of the questionnaires were analysed for missing values, normality and outliers. An analysis for missing values showed that the number of missing responses was quite high for four questions, monthly income of parents (36, 9.8%), educational qualification of mother (n = 27, 8.4%), educational qualification of father (n = 31, 8.4%), and monthly pocket money (n = 46, 12.5%)

Missing values for admission score, current CGPA and marks in the course were checked in the questionnaires and lists obtained from the students' records office and entered in the data file. However, in statistical analysis, participants whose data were missing for monthly income, educational qualification and monthly pocket money were excluded pair wise (analysis by analysis), that is only if they were missing the data required for the specific analysis. They were still included in any of the analyses for which they had the necessary information (Pallant, 2007, p. 209). A Kolomogrov-Smirnov Test was used to test the normality of data on four questions – admission score, achievement scores, monthly income of parents and monthly pocket money. The significance values (P> .05) for admission scores, achievement scores, current CGPA, monthly income of parents and the monthly pocket money indicated the normality of data as shown in Table 2 of Appendix F. The histograms and the box plots of the data on four variables: admission scores, achievement scores and monthly income of parents and monthly pocket money indicated the outliers. These outliers were checked with the

questionnaires and corrections were made to the achievement scores and admission

score of cases ID 227 and monthly income of ID 307. In order to make decisions about

the outliers in the further analysis of the data the values of 5% trimmed mean were

reviewed. Some of these extreme values only slightly influenced the mean monthly

income and pocket money. Therefore these extreme values were included in further

analysis such as while calculating mean monthly income and monthly pocket money.

As discussed earlier in Chapter Two, although the MSLQ and the CEQ have

been most widely and extensively used with students at various educational levels

including university/ college students, in various cultural and educational contexts all

over the world, an exploratory factor analysis of motivational subscales and course

experience scales was used to examine the factor structure of these scales with

postgraduate students in Pakistan. As they emerged from factor analysis, new factors

were then used as measures of the students' motivational beliefs and course experiences

for the current study. The detail of factor analysis appears in Chapter Four.

Several statistical analyses involving these new factors were performed on the

data. Descriptive statistics, such as , frequencies, percentages, means and standard

deviation along with graphs were used to illustrate the results.Where two groups (e.g.,

male and female, morning and afternoon shift of study) had to be compared in terms of

their mean differences, independent sample t-tests were used. According to Pallant

(2007, p. 207), with large samples even very small differences between groups can

become statistically significant. This does not mean that the difference has any practical

or theoretical significance. Therefore to assess the importance of the finding the 'effect

size', *eta squared* /partial *eta squared* was also calculated and the following guidelines

as proposed by Cohen (1988, pp. 284-287) were used for interpreting the value of *eta*

squared (η2)/ partial eta squared(partial η2):

.01 or 1% = small effect

.06 or 6% = medium effect,

.14 or 14% = large effect

The t tests were preliminary and did not take account of between and within

department differences. Therefore a more sophisticated analysis, Multivariate analysis of

Covariance (MANCOVA), was conducted. Multivariate analysis of Covariance is an

analysis of covariance with two or more dependent variables while controlling for the

influence of other variables. In this study a three way factorial Multivariate Analysis of

Covariance was performed separately for motivational beliefs and course experiences.

The first MANCOVA was performed with gender, departments of study, and shift of

study as three independent variables and four motivational components (extrinsic goal

orientation, task value, self-efficacy for learning and performance, and test anxiety) as

dependent variables, while controlling for the effect of admission scores as a covariate.

A second MANCOVA was performed with gender, departments of study, and shift of

study as three independent variables and three course experiences factors (*good*

teaching, appropriate workload, and learning community and resources) as dependent

variables, while controlling for the effect of admission scores as a covariate. The details

of MANCOVA are presented in Chapters Five and Six.

To examine the interrelationship among motivational beliefs, course experiences

and academic achievement, Pearson product-moment correlations were computed and

the following guidelines proposed by Cohen (1988, pp. 79-81) were used to interpret the

value of the correlation coefficient

Small/ low $r = .10$ to $.29$

Medium $r = .30$ to $.49$

Large/ high $r = .50$ to 1.0

The Results of correlation analysis are discussed in Chapter Seven.

All responses to the three open-ended questions were recorded verbatim in an

excel work sheet. A decision was made not to utilize a computer software program, due

to the relatively small amount of data. The responses to each question were analysed at

department level and all responses were coded by the researcher in three stages. In the

first phase of coding core words and ideas were identified by marking words and phrases

in the answers. In the second phase of coding these core ideas and words were classified

and grouped into main themes/ categories. A frequency count was taken for the

responses under each theme, and in the third phase common themes were identified

across all departments. A discussion of all categories/themes at the department level as

well as at the sample level along with the examples and quotations from the verbatim

transcriptions of the students' responses is presented in Chapter Seven.

A summary of various statistical analyses used to answer the research questions

of the study is given in Table 3.6

Table 3.6

Research Questions and Statistical Analysis

Research question	Analysis
What are the motivational beliefs of the students in various disciplines of study at the University of Punjab?	Means, Percentages and t test
What are the learning experiences of students in various disciplines of study at the University of Punjab?	Means, Percentages and t test
Are there significant differences in motivational beliefs of male and female students?	MANCOVA
Are there significant differences in the course experiences of male and female students?	MANCOVA
Are there significant differences in the students' motivational beliefs in various disciplines of study?	MANCOVA
Are there significant differences in the students' course experiences in various disciplines of study?	MANCOVA
Are there any relationships between the motivational beliefs, course experiences and academic achievement of students?	Pearson's Correlation
What are the future plans of the students?	Qualitative Thematic Analysis
How do future plans relate to the motivational beliefs and course experiences of the students?	Qualitative Thematic Analysis

This chapter has described and explained the design and methodology used in the

present investigation. This study was conducted utilizing a descriptive and cross

sectional survey approach. Data were collected from postgraduate students enrolled in

the morning and afternoon shifts of five departments of study at the University of the

Punjab, Lahore, Pakistan. A questionnaire was used to collect data about the variables

(motivational beliefs, course experiences, and academic achievement, SES of parents

and future plans of the students) of the study. The data obtained were analysed

quantitatively by applying summary descriptive statistics, correlation analysis and

multivariate (MANCOVA) analysis as well as qualitatively by using thematic analysis.

The next chapter (Chapter Four) presents the results of the factor analysis of the

motivation scales and course experience scales used in the study

.

Chapter 4

Factor Analysis of the Scales

This chapter presents the results of the factor analysis of the motivation and course experience scales used in the study. Although the MSLQ and the CEQ have been most widely and extensively used with students at various educational levels including university/college students, in various cultural and educational contexts all over the world, an exploratory factor analysis of motivational subscales and course experience scales was used to examine the factor structure of these scales with postgraduate students in the context of Pakistan. This examination was based on the assumption that the instruments developed in the USA and Australia would not necessarily operate in the same way or generate the same meaning in the Pakistani higher education context as in Western educational systems due to differences in the teaching and learning environments.

This chapter is divided into two sections. The first section (4.1) presents the results of the factor analysis of the motivational scales, and the second section (4.2) presents the results of the factor analysis of the course experience scales.

4.1 Factor Analysis of the Motivation Scales

The items on the motivation scales required students to rate themselves on a seven-point Likert scale from 'not at all true of me' (1) to 'completely true of me' (7).

The factor analysis was conducted using PASW Statistics 18 (SPSS). Prior to the analysis, an inspection of the data was undertaken to ensure that it could be factor

analysed. Tabachnick and Fidell (2007, p. 613) suggest a large sample, of at least 300 cases, is necessary for conducting a factor analysis. In the current study the total sample size was 368. Pallant (2007, p. 185) and Tabachnick and Fidell (2007, p. 657) both mention that the data should meet three criteria: (1) the correlation matrix should have several correlation coefficients of .3 and above. (2) Bartlett's test of sphericity should be significant ($p<.05$), and (3) the Kaiser-Meyer-Oklin (KMO) measure of sampling adequacy should be 0.6 or greater. To check whether the present data met these criteria, correlation analyses were carried out among the 31 items measuring the motivational beliefs of the students. A list of these items along with their designated scales in the MSLQ is given in Appendix A

The correlation matrix revealed the presence of seventy eight coefficient indices equal to, or greater than 0.3. Moreover, the Kaiser Meyer Oklin (KMO) measure of sampling adequacy resulted in a value of 0.821 and Bartlett's test of sphericity found an approximate Chi-Square value of 2439.095 with $p< 0.05$ as shown in Table 4.1

Table 4.1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.821
Bartlett's Test of Sphericity	Approx. Chi-Square	2439.095
	Df	465
	Sig.	.000

These results indicated the suitability of the data for a factor analysis. After examining the suitability of the data, the 31 items measuring the motivational beliefs of the students (see Appendix A) were subjected to an exploratory factor analysis using the extraction method of Maximum Likelihood with Varimax rotation.

The next step was to determine the number of factors to be extracted. A frequently used rule of thumb is to identify the number of factors whose eigenvalues are greater than one; this is known as the Kaiser Criterion. However this criterion is also known to overestimate the number of factors in some situations (Pallant, 2007). An alternative procedure suggested by Pallant (2007) to determine the number of extracted factors is to use a 'scree test' proposed by Cattell (1966) . This procedure involved plotting each of the eigenvalues of the factors and inspecting the plot to find a point at which the shape of the curve changes direction and becomes horizontal. All factors above the break or elbow should be retained. In addition to these two methods, Tabachnick and Fidell (2007) recommend the exploratory approach of experimenting with different numbers of factors, that is extracting more than or less than the number of common factors indicated by the scree plot and the Kaiser criterion.

The same techniques were used to analyse the scores obtained in the present study. The eigenvalue greater than one rule indicated that 12 factors recorded eigenvalues 1 or above (6.203, 2.720, 1.934, 1.466, 1.253, 1.204, 1.119, 1.050, 1.039). On the other hand, the scree plot (Figure 4.1) indicated a break between the fourth and fifth factors thereby suggesting the extraction of four factors. In order to make a final decision concerning the number of factors, the technique of over-factoring was used so

that five factors and six factors were extracted. Over-factoring also supported the

extraction of four factors as only one item loaded on Factor 5 and no item loaded on

Factor 6. A factor with fewer than three items is generally considered weak and unstable

(Costello & Osborne, 2005; Pallant, 2007, p. 192)
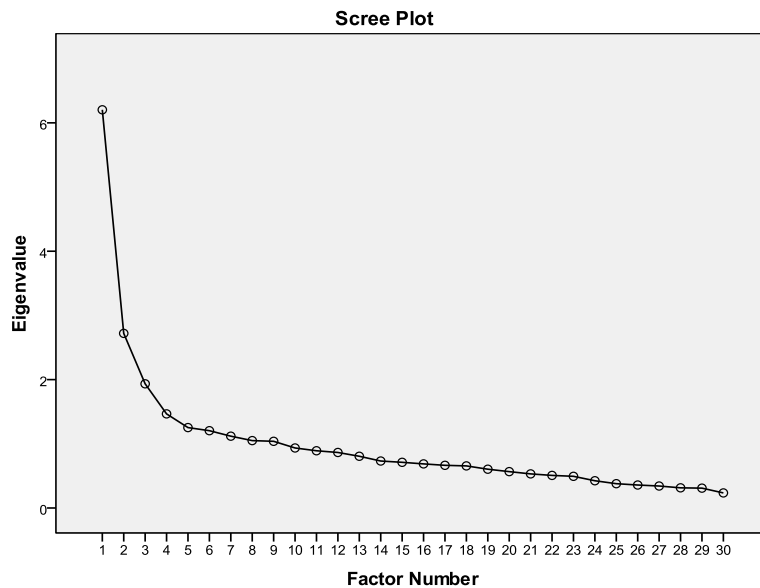
Figure 4.1. Scree plot for motivation factors

In light of the above analysis, an extraction of four factors was considered

appropriate.

The four factors explained 40.60% of the total variance. The variances explained

by each of the four extracted factors were 20.81%, 8.84 %, 6.29%, 4.66 % respectively

(see Appendix G).

The factor matrix was rotated using Varimax with Kaiser Normalization Method and the final results of an iterative process are presented in Table 4.2. According to Tabachnick and Fidell (2007, p 649), a rule of thumb is that only items/variables with loadings of .32 and above are interpreted. The greater the loading, the more the variable is a pure measure of the factor and the choice of the cut off size of loading to be interpreted is a matter of researcher preference. Therefore, in the current study .32 was used as a minimum loading criterion of an item, which equates to approximately 10% of overlapping variance with other items in that factor (Pallant, 2007; Tabachnick & Fidell, 2007). Items were grouped and assigned to factors on the basis of the highest factor loadings.

Four items (M2: If I study in appropriate ways, then I will be able to learn the material in this course, M9: It is my own fault if I don't learn the material in this course, M18: If I try hard enough, then I will understand the course material., M25: If I don't understand the course material, it is because I didn't try hard enough) measuring the control of learning beliefs of the students failed to show a salient loading ($> \pm$ .32) on any of the factors, indicating that the construct of control of learning was not meaningful for these postgraduate students in the Pakistani context. In the Pakistani education system learning and instruction is generally considered to be controlled and driven by teachers, therefore the students do not consider themselves to be in control of their learning and consequently do not consider themselves to be responsible for or in control of the outcomes of their learning. Moreover, they did not believe that their academic outcomes were contingent on their own efforts.

Four items measuring self-efficacy for learning and performance (M29: I'm certain I can master the skill being taught in this class; M31: Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class; M20: I am confident that I can do an excellent job on assignments and tests in this course and M21: I expect to do well in this class) cross loaded on two factors (i.e. one factor comprised items measuring self-efficacy for learning and performance and the other comprised test anxiety items). According to Costello and Osborne (2005) the cross loading items should be investigated for their conceptual clarity and especially in the case if items that cross-load strongly (above.3) on more than one factor. The researcher should then decide whether to include or omit these items from the final scale (Costello & Osborne, 2005). A review of the wording of these items revealed that words such as "assignments", "tests", "grades", "doing well", may have caused a confusion of meaning with test anxiety. Moreover these items cross loaded strongly (above .3) on two factors. Therefore the cross loading items (M20, M21, M29, M 31) along with four items that failed to show salient loadings (M2, M9, M18, M25) measuring control of learning beliefs) were deleted and removed from analysis in the next iteration, yielding a final four factor solution as shown in Table 4.2.

Table 4.2

Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of Motivation Scales

Items	Factors			
	1	**2**	**3**	**4**
M27	**.86**	-.01	.00	-.11
M26	**.64**	.00	.00	.01
M23	**.63**	.11	.00	.11
M22	**.63**	.18	-.01	.00
M10	**.52**	.17	.00	.01
M17	**.47**	.01	.01	.10
M1	**.42**	-.01	.12	.00
M4	**.34**	.00	.13	.13
M15	-.11	**.70**	.05	.07
M6	.01	**.52**	.12	.00
M16	.00	**.51**	.00	.21
M12	.13	**.42**	-.01	.13
M19	.01	.01	**.61**	.12
M14	.11	-.11	**.46**	.14
M28	.10	.01	**.46**	.01
M3	.00	.11	**.40**	.00
M5	-.01	.00	**-.35**	-.11
M8	.00	.01	**.35**	.11
M11	.12	.00	.00	**.56**
M7	.00	.13	.11	**.54**
M13	.10	.01	.18	**.46**
M30	.00	.00	.17	**.36**

Note. Factor loadings >.30 are in boldface

The new extracted factors were found to be different from the original motivation scales of MSLQ as proposed by (Garcia & Pintrich, 1995). Factor One was found to obtain high loadings ($\pm$ 0.32) from eight items, and of these six items (M27, M26, M23, M10, M17, M4) were intended to measure the *task value* beliefs of the students (as they belonged to the task value scale) and two items (M1, M22) purported to measure the *intrinsic goal orientation* of the students (as they belong to the *intrinsic goal orientation* scale) as shown in Table 4.3. Scrutiny of the wording of these items revealed that for the postgraduate students in this sample, the reasons, such as challenge, curiosity, and mastery, for engaging in a task means the importance and utility of that task and these items were seen by the students as having more to do with the overall value of the material. It can also be inferred that the intrinsic goal orientation for the course was linked with the overall utility and value of the course. This factor could be best described as *task value beliefs.*

Factor Two comprised four items (see Table 4.3); three of these items (M6, M12 and M15) measured *self-efficacy for learning* and one item (M16) measured *intrinsic goal orientation.* An analysis of the wording of this last item showed a close similarity with the other three items as it also talks in terms of the difficulty of the course material. It appeared that the responding students associated *intrinsic goal orientation* with *self-efficacy*. This factor was thus named *self-efficacy for learning*.

Factor Three obtained high loadings on six items as shown in Table 4.2. Five items (M19, M14, M28, M3, and M8) measured *test anxiety*, whereas one item (M5: I believe I will receive an excellent grade in this class) measured *self-efficacy for learning*

and performance. This item was a close match with the other five items as it also asked about grades in exams. However this item was deleted in the reliability analysis of the new factor as it was affecting the overall reliability of the new factor. This new factor was similar to the original MSLQ scale of *test anxiety,* therefore it was named *test anxiety.*

The fourth factor consisted of four items measuring *extrinsic goal orientation.* This factor is the same as the extrinsic goal orientation factor on the original MSLQ scale, indicating that the *extrinsic goal orientation* scale operated effectively with the current sample.

Table 4.3

New Motivation Factors and Items

Item No	Items	MSLQ Scale
	Factor 1: Task value	
M27	Understanding the subject matter of this course is very important to me.	Taskv
M26	I like the subject matter of this course.	Taskv
M23	I think the course material in this class is useful for me to learn.	Taskv
M22	The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.	Intr
M10	It is important for me to learn the course material in this class.	Taskv
M17	I am very interested in the content area of this course.	Taskv
M1	In a class like this, I prefer course material that really challenges me so I can learn new things.	Intr
M4	I think I will be able to use what I learn in this course in other courses.	Taskv
	Factor 2: Self-efficacy for Learning	
M15	I'm confident I can understand the most complex material	Slfef

Item No	Items	MSLQ Scale
	presented by the instructor in this course.	
M6	I'm certain I can understand the most difficult material presented in the readings for this course.	Slfef
M16	In a class like this, I prefer course material that arouses my curiosity, even if it is difficult for me.	Intr
M12	I am confident I can understand the basic concepts taught in this course.	Slfef
	Factor 3: Test Anxiety	
M19	I have an uneasy, upset feeling when I take an exam.	Tanx
M14	When I take a test I think of consequences of failing.	Tanx
M28	I feel my heart beating fast when I take an exam.	Tanx
M3	When I take a test I think about how poorly I am doing compared with other students.	Tanx
M8	When I take a test I think about items on other parts of the test I can't answer.	Tanx
	Factor 4: Extrinsic Goal Orientation	
M11	The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.	Extr
M7	Getting good grade in this class is the most satisfying thing for me right now.	Extr
M13	If I can, I want to get better grades in this class than most of the other students.	Extr
M30	I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.	Extr

The Cronbach α measure of internal consistency was calculated for each of the new derived factors, with αs of 0.80 for *task value,* 0.66 for *self-efficacy for learning*, 0.60 for *test anxiety* and 0.57 for *extrinsic goal orientation*. While calculating the coefficient alphas, items on each scale were reviewed for deletion in order to improve the reliability of the scale and one item (M5: I believe I will receive an excellent grade in this class) was deleted from the factor three, *test anxiety*. Although the reliability index

is comparatively low for *extrinsic goal orientatio*n, this scale was retained and used in the study due to its theoretical relevance and significance and due to the history of this scale having a much higher alpha in other studies. However, caution should be exhibited when interpreting results associated with this factor. These four factors were used as the measures of students' motivational beliefs in the current study.

4.2   Factor Analysis of Course Experience Scales

In order to perform a factor analysis of the course experience scales, the data on 27 items measuring the course experiences of the students was checked for suitability for factor analysis. The correlation matrix revealed the presence of seventy two coefficient indexes equal to or greater than 0.3. Moreover the Kaiser Meyer Oklin (KMO) measure of sampling adequacy resulted in a value of 0.846, and Bartlett's test of sphericity found an approximate Chi-Square value of 2003.142 with p< 0.05 as shown in table 4.4

Table 4.4

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.846
Bartlett's Test of Sphericity	Approx. Chi-Square	2003.142
	df	351
	Sig.	.000

These results indicated the suitability of the data for factor analysis, therefore the 27 items measuring the course experiences of the students were subjected to an exploratory factor analysis using the extraction method of Maximum Likelihood with Varimax rotation.

In order to determine the number of factors to be extracted first, the eigenvalue one rule was used, indicating that eight factors recorded eigenvalues 1 or above (6.274, 2,183, 1.572, 1.307, 1.231, 1.153, 1.084, 1.028). In contrast, the scree plot (Figure 4.2) indicated a break between the third and fourth factors, thereby suggesting the extraction of three factors. However, in order to make a final decision concerning the number of extracted factors, the technique of over-factoring was again used with four and five factors being extracted. The over-factoring process also supported the extraction of three factors, as only two items loaded on Factor Four and no items loaded on Factor Five. Therefore, an extraction of three factors was considered appropriate. The three factors explained 37.14 % of the total variance. The variances explained by each of the three extracted factors were 23.24%, 8.01 % and 5.82% respectively (see Appendix H).
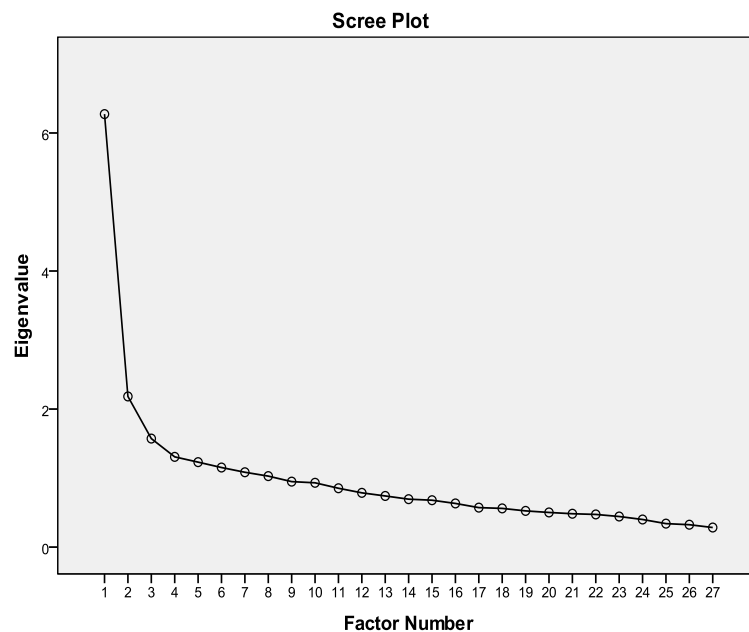
Figure 4.2. Scree plot for curse experiences factors

The Factor matrix was rotated using varimax rotation with Kaiser Normalization method and the final results of an iterative process are presented in Table 4.5. The minimum item loading criteria of 0.32 was used (Pallant, 2007; Tabachnick & Fidell, 2007).

Four items (L3, L9, L15 and L5) failed to show a salient loading ($> \pm$ .32) on any factor. Three of these items (L3: To do well in this course all you need is a good memory; L9: Staff seem more interested in testing what you have memorised than what you have understood, and L15: Staff asks us questions just about facts) measured the students' perceptions about the appropriateness of the assessment. This indicated that items about the assessment practices did not seem to function well with these postgraduate students at the University of the Punjab. This may be due to there being a different system of assessment and evaluation at Punjab University. The wording of these items only focused on the nature of questions/tests and answers expected by the teachers/staff, whereas postgraduate students at Punjab University had to submit term papers and assignments in addition to taking mid-term and final examinations. Similarly, the item L5 (L5: The library resources are appropriate for my needs) did not load on any factor thereby indicating the non-significance of the library resources for postgraduate students in their learning at the University of the Punjab. This again is a reflection on the system of education where library resources did not seem to be an important part of the learning resources drawn on by the students. This may be due to the fact that students generally relied for their learning on the lecture notes and hand-outs provided by their lecturers.

Two items (L2 & L20) from the *clear goals and standards* scale and two items (L7 & L19) from the *good teaching* scale had almost similar loadings on more than one factor. For example item L20: The sheer volume of work to get through this course means you cannot comprehend it all thoroughly had a factor loading of 0.369 and 0.378 on two factors. These items along with four items that failed to load on any factor were deleted and a final three-factor solution was obtained as shown in Table 4.5

Table 4.5

Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of Course

Experience Scales

Items	Factor		
	1	2	3
L24	**.81**	.01	.00
L27	**.66**	.01	.00
L25	**.62**	.11	-.01
L23	**.56**	-.11	.00
L1	**.52**	.00	.00
L13	**.50**	.11	.01
L22	**.43**	.13	.14
L12	.11	**.67**	-.01
L18	.11	**.52**	.00
L8	.01	**.45**	.11
L6	.00	**.44**	-.13
L11	.00	**.42**	.00
L10	.00	**.41**	.01
L17	-.01	**.41**	.16
L26	.01	**.39**	-.11
L4	.00	-.18	**.62**
L16	.00	.10	**.46**
L14	-.01	.11	**.42**
L21	.01	.01	**.37**

Note. Factor loadings >.30 are in boldface

Factor One comprised seven items, with four of these items (L24, L27, L1 and

L13) from the *good teaching* scale, and the other two items (L22, L25) focussed on the

quality and relevance of the course materials used. At Punjab University, study materials

are generally provided by teachers in the form of lecture notes and hand-outs, so it is

likely that students considered these behaviours to be an integral part of good teaching practice. One item (L23) belonged to the *learning community* scale and asked about the inclusion of students' ideas and suggestions in teaching which may also be considered as a good teaching practice. As all these items are about the quality of teaching, this factor was named *good teaching*.

Factor Two comprised eight items in total with four items from the *learning community* scale and two items from the *learning resources* scale of the CEQ. One further item (L8: You usually have a clear idea of where you are going and what is expected of you) belonged to the *clear goals and standards* scale and another (L10: We are generally given enough time to understand the things we have to learn.) to the *appropriate workload* scale of the CEQ. As most of these items were concerned with the students' views about the learning community and resources, this factor was labelled *learning community and resources*.

Factor Three consisted of four items in total (see table 4.5) of which three items (L4, L16, L20) were from the *appropriate workload* scale and one item (L14) from the *clear goals and standards* scale (see table 4.6). This factor was very similar to the original *appropriate work load* scale of the CEQ and was therefore named *appropriate workload*.

Table 4.6

New Course Experience Factors and Items

Item No	Items	CEQ Scale
	Factor One: Good Teaching (GT)	
L24	Lecturer is extremely good at explaining things to students.	GTS
L27	Teaching staff work hard to make subject interesting.	GTS
L25	Course materials are relevant and up to date.	LRS
L23	Students' ideas and suggestions are used during the course.	LCS
L1	The teaching staff of the course motivate students to do their best work.	GTS
L13	The staff of the course make a real effort to understand difficulties students may be having with their work.	GTS
L22	The study materials are clear and concise.	LRS
	Factor Two: Learning Community and Resources (LCR)	
L12	I am able to explore academic interests with staff and other students.	LCS
L18	I can explore ideas confidently with other people.	LCS
L8	You usually have a clear idea of where you are going and what is expected of you.	CGS
L6	I feel part of a group of students and staff committed to learning.	LCS
L11	Where it is used, the information technology in teaching and learning is effective.	LRS
L10	We are generally given enough time to understand the things we have to learn.	AWLS
L17	It is made clear what resources are available to help me learn.	LRS
L26	I feel I belong to the university community.	LCS
	Factor 3: Appropriate Workload (AWL)	
L4	The workload is too heavy.	AWLS
L16	There is a lot of pressure on you as a student.	AWLS
L14	It's often hard to discover what is expected of you in this course.	CGSS
L21	The sheer volume of work to get through this course means you cannot comprehend it all thoroughly.	AWLS

The Cronbach α measure of internal consistency were calculated for each of the new derived factors, with αs of 0.84 for *good teaching*, 0.72 for l*earning community and resources* and 0.58 for *appropriate workload*. While calculating the coefficient alphas, items on each scale were reviewed for deletion in order to improve the reliability of the scale, but none of the items had to be deleted. Although the reliability index is comparatively low for *appropriate workload* this scale was retained and used in the study due to its theoretical relevance and significance.

As mentioned in Chapter Two (Section 2.3.2), previous studies (Ramsden, 1991; Richardson, 2005; Trigwell & Prosser, 1991; Wilson, et al., 1997)have shown that factor analysis of the scores on the CEQ scales produced a single higher order factor on which all scales show significant loading. Therefore in order to explore whether one or more higher order factors were underlying the new CEQ factors derived above, a principal component analysis was conducted on the scores on the three new scales (*good teaching, learning community and resources,* and *appropriate workload*). The Kaiser Meyer Oklin (KMO) measure of sampling adequacy resulted in a value of 0.64, and Bartlett's test of sphericity found an approximate Chi-Square value of 114.32 with $p < 0.05$. This analysis yielded just one component with an eigenvalue greater than one and the scree test also indicated the presence of one factor which explained 52.73% of the total variance. Table 4.7 shows the inter correlations and the loadings of the three course experience factors derived above.

Table 4.7

Inter correlations and Factor Loadings of the New CEQ Factors

Factor	Learning Community and Resources	Appropriate workload	Loadings
Good Teaching	.54	-.20	.88
Learning Community and Resources		.03	.83
Appropriate Workload			.34

The factor loading of the *appropriate workload* scale (.34) is comparatively lower than those of the *good teaching (.88)* and *learning community and resources (.83)* scales. This result is consistent with the *appropriate workload* scale consistently demonstrating lower factor loadings on a single higher order factor relative to other scales (Ramsden, 1991; Richardson, 1994; Richardson, et al., 2007; Trigwell & Prosser, 1991). The single higher order factor is also consistent with the findings of previous research (Ramsden, 1991; Richardson, 1994; Trigwell & Prosser, 1991) and demonstrates the construct validity of the CEQ scales as a measure of perceived teaching quality.

4.3   Summary

This chapter has presented the factor analysis of the motivational and course experience scales used in the current study. The analysis showed that the factor structure of the scales had been modified with the current sample. Therefore for the further analysis of

data in the current study, four new factors (task value, extrinsic goal orientation, self-efficacy for learning and performance, and test anxiety), emerging from the factor analysis of motivation scales, were used to explore the participating students' motivational beliefs, and three new factors (*good teaching, learning community and resources,* and *appropriate workload*) emerging from the factor analysis of the course experience scales were used to explore the course experiences of these postgraduate students and to answer the research questions of the study.

Both the MSLQ and CEQ have prescribed ways of calculating their results. These are available from Pintrich, Smith, Garcia, and McKeachie (1991a), McInnis, et al. (2001) and Wilson, et al. (1997). Accordingly, an average value for each of the new motivation and course experience scales was calculated. In this way each student ended up with a value for each of the motivational variables of extrinsic goal orientation, task value, self-efficacy for learning and performance, and test anxiety (between 1 and 7), and course experience variables of *good teaching*, *appropriate workload*, and *learning community and resources* (between 1 and 5).

The next two chapters present the results of the analysis of data on motivational beliefs (Chapter Five) and course experiences (Chapter Six) of the students.

Chapter 5

The Motivational Beliefs of Postgraduate Students

An objective of this study was to explore the motivational beliefs of postgraduate students at the University of the Punjab, Lahore. This chapter describes the motivational beliefs of the participating students and is divided into two main sections. The first section (5.1) presents the results of the descriptive analysis of the motivational beliefs of the students, and the second section (5.2) presents the results of Multivariate Analysis of Covariance (MANCOVA) of the motivational beliefs of the participants. Multivariate Analysis of Covariance is an extension of analysis of variance for use with two or more dependent variables while controlling for the influence of other (continuous) variables. These variables are called covariates. MANCOVA compares the groups and allows a comparison of the mean difference between the groups on the combination of dependent variables.

This study involved three independent variables – gender, department and the shift of study – and four dependent variables (*extrinsic goal orientation, task value, self-efficacy for learning* and *test anxiety*). Therefore in order to explore differences among the motivational beliefs of different groups (male and females, students enrolled in different departments of study and morning and afternoon shifts) a three way factorial Multivariate Analysis of Covariance was performed with gender, department of study, and shift of study as the three independent variables and four motivational components (*extrinsic goal orientation, task value, self-efficacy for learning,* and *test anxiety*) as dependent variables, while controlling for the effect of *admission score* as a covariate. A

preliminary analysis was performed on two possible covariates (i.e. Parents' SES and Students' admission score) in the current study and only students' admission scores were chosen as a covariate as this measure correlated significantly with the dependent variables (motivational beliefs and course experiences), such a correlation being the criterion for selection suggested by Pallant (2011, p. 298).

5.1 Motivational Beliefs of the Postgraduate Students

The research question answered in this section is 'What are the motivational beliefs of the postgraduate students?' To answer this question, descriptive statistics (mean, standard deviation, skewness and kurtosis) for each of the motivational scales were computed. A series of independent sample *t* tests were conducted to determine if significant differences existed between males and females and between morning and afternoon shifts of study. Moreover, eta squared (η^2) were also calculated to describe the magnitude of the differences in the means of two groups (t test) and partial eta squared (*partial η^2*) to describe the magnitude of the differences in the means of more than two groups (MANCOVA) as suggested by Pallant (2007, p. 208). These t tests were preliminary for testing group differences and did not take account of between and within department differences, therefore, more sophisticated analyses were undertaken and these are outlined in Section 5.2 below.

Four motivation scales, *extrinsic goal orientation, task value, self-efficacy for learning,* and *test anxiety*, which emerged as the new factor structure from the factor analysis of the data (see Chapter 4, Section 4.1) were used to measure the motivational

beliefs of the students. Scores were calculated for all 368 students on each of the four motivational scales. These scores were calculated as the mean score of each student's responses to all items in each scale. Before performing any statistical analyses the data on the four motivational scales were analysed to check for missing values and normality. Little's MCAR test was found to be not significant, with $p = .34$, indicating that the cases were missing completely at random (Tabachnick & Fidell, 2007, p. 63). This finding opened the way for further investigation.

In order to determine the normality of the distributions of the four motivation scales, Kolmogorov-Smirnov tests were performed. These tests were found to be significant, $p>.05$ (Table 5.2) thereby indicating the normality of the distributions. However, the values of skewness and kurtosis as given in Table 5.1 indicated that distributions were negatively skewed for extrinsic goal orientation, and task value.

Table 5.1

Descriptive Statistics for Motivation Scales

Scale	*M*	MID	*SD*	MIN	MAX	Skewness	Kurtosis
Extrinsic Goal Orientation	5.75	5.83	1.05	2.00	7.00	-1.04	0.84
Task Value	5.29	5.38	0.94	1.25	7.00	1.14	2.37
Self-efficacy for Learning	5.04	5.25	1.17	1.00	7.00	-0.60	0.11
Test Anxiety	4.12	4.20	1.25	1.00	7.00	-0.20	-0.42

According to (Tabachnick & Fidell, 2007, p. 80), it is more important to look at the shape of the distribution than the values of skewness and kurtosis, therefore

histograms of the scores on motivational scales were examined. These histograms showed that *extrinsic goal orientation* was significantly skewed. Therefore the scores on *extrinsic goal orientation* were transformed by using the following transformation formula (Fox 2008, p 68).

$$y' = -\ln\left(\frac{7.25 - y}{y - 0.75}\right)$$

However according to Pallant (2007, p.87) and Tabachnick and Fidell (2007 p. 86) there is considerable controversy over the transformation and it is not universally recommended. In order to check whether the transformation of scores improved the results of analysis, a MANCOVA was performed with transformed, as well as the original scores on the extrinsic motivation scale. No differences were noted in the results of the analysis of the transformed and original data. Moreover, according to Pallant (2007, p.277), MANOVA/MANCOVA is reasonably robust to modest violations of normality (except where violations are due to outliers) therefore, a decision was made not to transform the scores and use the original scores on *extrinsic goal orientation* for further analysis.

Table 5.2

Kolmogorov-Smirnov Test for Motivational Scales

		Taskv	Extr	Slfef	Tanx
n		45	49	49	44
Normal Parameters[a,b]	Mean	5.44	5.88	5.18	4.29
	Std. Deviation	.94	1.01	1.06	1.21
Most Extreme Differences	Absolute	.12	.14	.09	.10
	Positive	.06	.13	.06	.09
	Negative	-.12	-.14	-.09	-.10
Kolmogorov-Smirnov Z		.80	1.01	.64	.68
Asymp. Sig. (2-tailed)		.54	.27	.82	.75

Note: Test was conducted on 50 (n) random cases from the sample

Descriptive statistics in Table 5.1 showed that means for all motivational scales were well above the scale mid points and varied between $M =4.12$ and $M = 5.75$. Mean scores indicated that the students generally reported high levels of endorsement of the respective motivational components.

Extrinsic goal orientation concerned the degree to which each student perceived himself/herself to be participating in a task for reasons such as grades, rewards, performance, evaluation by others and competition. When a student is high on *extrinsic goal orientation*, engaging in a task is considered as a means to an end and the main concerns for the student are related to their grades, rewards and comparing one's performance to that of others. The results showed that the students generally had very high extrinsic motivation ($M = 5.75$, $SD =1.05$). Four items were included in this scale and scores on all items were well above the scale midpoint (see Table 5.3). The students

had a high concern for their grades in the course ($M = 5.59$, SD = 1.59), their overall performance and overall grade point average ($M = 5.88$, $SD = 1.63$). The reason for getting good grades as indicated by students was to prove their ability to others ($M = 5.79$ $SD = 1.64$).

Task value referred to students' perceptions of the course material in terms of interest, importance and utility. Eight items were included in this scale. Overall the mean score for this scale was above scale midpoint ($M = 5.48$, $SD = 0.94$). Mean scores for individual items ranged from $M = 5.01$, $SD = 1.77$ (for the item 'I think I will be able to use what I learn in this course in other courses') to $M = 6.06$, $SD = 1.34$ (for the item 'It is important for me learn the course material in this course').

Self-efficacy for learning referred to a self-appraisal of one's ability to master a task. Four items were included in this scale. The mean score ($M=5.05$, $SD = 1.17$) for self-efficacy for learning and performance indicated that postgraduate students generally believed that they were (and would be) able to accomplish a task and understand the course materials.

Test anxiety had two components, a worry, or cognitive component, and an emotionality component. The worry component referred to students' negative thoughts that disrupt performance, while the emotionality component referred to affective and physiological arousal aspects of anxiety. Five items were related to *test anxiety*. The mean score for the scale ($M = 4.12$, $SD = 1.25$) as well as for all items included in the

scale (Table 5.3) indicated that the students were not very anxious about the test and examination conducted at the postgraduate level.

Table 5.3

Descriptive Statistics for Items on the Motivational Scales

Item No	Items	M	SD
	Extrinsic Goal Orientation	5.75	1.05
M11	The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.	5.88	1.63
M30	I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.	5.79	1.64
M13	If I can, I want to get better grades in this class than most of the other students.	5.76	1.46
M7	Getting a good grade in this class is the most satisfying thing for me right now.	5.59	1.59
	Task Value	5.29	0.94
M10	It is important for me to learn the course material in this class.	6.06	1.34
M23	I think the course material in this class is useful for me to learn.	5.81	1.46
M27	Understanding the subject matter of this course is very important to me.	5.77	1.44
M22	The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.	5.67	1.47
M1	In a class like this, I prefer course material that really challenges me so I can learn new things.	5.33	1.56
M26	I like the subject matter of this course.	5.21	1.61
M17	I am very interested in the content area of this course.	5.09	1.59
M4	I think I will be able to use what I learn in this course in other courses.	5.01	1.77
	Self-efficacy for Learning	5.04	1.17
M12	I am confident I can understand the basic concepts taught in this course.	5.66	1.52
M16	In a class like this, I prefer course material that arouses my curiosity, even if it is difficult for me.	5.14	1.58
M15	I'm confident I can understand the most complex material presented by the instructor in this course.	4.80	1.76
M6	I'm certain I can understand the most difficult material presented in the	4.56	1.80

Item No	Items	*M*	*SD*
	readings for this course.		
	Test Anxiety	4.12	1.25
M28	I feel my heart beating fast when I take an exam.	4.49	2.21
M8	When I take a test I think about items on other parts of the test I can't answer.	4.43	1.84
M3	When I take a test I think about how poorly I am doing compared with other students.	4.26	2.15
M19	I have an uneasy, upset feeling when I take an exam.	3.90	2.15
M14	When I take a test I think of consequences of failing.	3.53	2.17

A series of independent sample *t* tests (Table 5.4) showed that females (*M* = 5.93, *SD* =0.93) were more extrinsically motivated than males (*M* = 5.45, *SD* = 1.18), *t* (219) = 3.93, *p*< .001. Levene's test indicated unequal variances (*F* = 8.94, *p* = .003), so the degrees of freedom were adjusted from 353 to 219. The magnitude of the difference between means (η^2 = .041) was found to be close to a moderate level. *Task value* beliefs were also higher for females (*M* =5.40, *SD* = 0.86) than males (*M* = 5.11, *SD* = 1.04) *t*(315) = 2.61, *p* = .009, although the difference was small (η^2 =.021). Similarly females (*M* = 4.33, *SD* = 1.26) were more test anxious than males (*M* = 3.76, *SD* = 1.17), *t* (336), *p*< .001 and the value of η^2 = .049 was found to be close to a moderate level using Cohen's (1988) convention of moderate effect size (η^2 = .06). This finding suggests that females were more worried and concerned about examinations. No significant difference was noted for *self-efficacy for learning* beliefs, indicating that males and females were equally confident in their ability to learn academic tasks.

Table 5.4

Motivational Beliefs of Male and Female

Motivational Beliefs	Males		Females		*t* (df)	*p*	95% CI		η2
	M	*SD*	*M*	*SD*			LL	UL	
Extrinsic Goal Orientation	5.45	1.18	5.93	0.93	3.93(353)	<.001	-0.70	-0.25	.04
Task Value	5.11	1.04	5.40	0.86	2.61(315)	.009	-0.49	-0.70	.02
Self- efficacy for Learning	5. 01	1.15	5.01	1.18	0.73(357)	0.46	-0.16	0.34	.002
Test Anxiety	3.76	1.17	4.33	1.26	-4.09(336)	<.001	-0.84	-0.29	.25

A series of independent sample *t* tests (Table 5.5) also showed that there were significant differences in the *extrinsic goal orientation* of the students enrolled in the morning and afternoon shifts of the study. The mean score on the *extrinsic goal orientation* scale was higher for the afternoon shift (*M*= 5.94, *SD* = 0.96) than for the morning shift (*M* = 5.58, *SD* = 1.10), *t* (353) = 3.25, *p* = .001 and η^2 = .031, indicating that the students enrolled in the afternoon shift had greater concern for good grades and for showing their ability to others than the students enrolled in the morning shift. A possible explanation for this could be that the students of the afternoon shift had not been able to get admission in the morning shift due to their relatively lower scores on the admission merit list, therefore they wanted to show and prove their ability to others by getting good grades. It may also be that the afternoon people are indicating that they need to work hard to stay at the university and that they understood that they need to be

competitive as they are paying higher fees than the students enrolled in the morning

shift. No significant differences were revealed in the *task value, test anxiety* and *self-*

efficacy beliefs of the students enrolled in the two shifts.

Table 5.5

Motivational Beliefs across Shift of Study

Motivational Beliefs	Morning shift		Afternoon shift		*t* (df)	*p*	95% CI		$\eta2$
	M	*SD*	*M*	*SD*			LL	UL	
Extrinsic Goal Orientation	5.58	1.10	5.94	0.96	3.25(353)	0.001	-0.57	-0.14	.031
Task Value	5.20	0.96	5.39	0.91	1.77(315)	0.076	-0.39	-0.02	.010
Self- efficacy for Learning and Performance	4.98	1. 19	5.11	1.15	1.00(357)	0.316	-0.37	0.11	.003
Test Anxiety	4.13	1.25	4.12	1.21	0.11(336)	0.916	-0.26	0.28	.0003

The results of the preliminary t tests in above sections indicated gender as well as

shift differences in the motivational beliefs, therefore a MANCOVA was performed to

explore and test for these differences, the results of which are discussed in the following

sections.

5.2   Multivariate Analysis of Covariance (MANCOVA) of the Motivational Beliefs of Postgraduate Students

In order to determine if there are significant differences in motivational beliefs (*extrinsic goal orientation, task value, self-efficacy for learning,* and *test anxiety*) of the male and female students, students enrolled in morning and afternoon shifts of study, and students enrolled in different departments, a three way factorial Multivariate Analysis of Covariance was performed, with gender, shift of study and departments of study as three independent variables and four motivational components (*extrinsic goal orientation, task value, self-efficacy for learning,* and *test anxiety*), as dependent variables, while controlling for the effect of admission score as a covariate. A preliminary analysis was performed on two possible covariates (i.e. Parents' SES and Students' admission score) in the current study and only students' admission scores were chosen as a covariate as these correlated significantly with the dependent variables (motivational beliefs and course experiences), and Pallant (2011, p. 298) suggests using such a correlation as the criterion for selection. This section is focused on the following three research questions:

1. Are there significant differences in the motivational beliefs of males and females?

2. Are there significant differences in the motivational beliefs of the students enrolled in the morning and afternoon shifts of the study?

3. Are there significant differences in the motivational beliefs of the students enrolled in various disciplines of study?

Before proceeding with the main MANCOVA analysis, data on the four motivational scales were examined for suitability for performing a MANCOVA. This was done by testing the assumptions of normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices and multicollinearity and singularity as described below.

Firstly, the data was examined for univariate normality. The details of the normality analysis have been discussed in Section 5.1.

In order to test assumptions of multivariate normality and absence of outliers, Mahalanobis distances were calculated for the four motivational scales (Pallant, 2011, p. 286). The maximum value of Mahalanobis distance was 25.66, this value being larger than the critical value of 18.47 at α=0.001, thereby indicating the presence of multivariate outliers in the data. A review of the data showed that only two students had a score exceeding the critical value of 18.47. These were the student with ID = 74 and a score of 25.66 and the student with ID = 108 and a score of 20.52. As the number of outliers was very small and their scores were not too high, these students were left in the data file as suggested by (Pallant, 2011, p. 288).

As suggested by Pallant (2007, p.281) the assumption of linearity, that is, there is a linear relationship among all pairs of DVs (Dependent Variables), all pairs of covariates and all DV-covariate pairs in each cell, was also satisfied through an examination of matrix of scatter plots (see Appendix J). According to the assumption of homogeneity of variance-covariance matrices, the variance-covariance matrices within

each cell of the design are sampled from the same population variance matrix and can reasonably be pooled to create a single estimate of error. This assumption was tested through the Box's M test of equality of Covariances Matrices. For the current data this test was found to be significant at $p<.001$ thereby indicating the violation of the assumption. However according to Tabachnick and Fiddell (2007, p, 252) Box's M test is a notoriously sensitive test of homogeneity of variance-covariance matrices available through SPSS MANOVA, and is considered to be too sensitive with a large sample size. Moreover, its robustness is not guaranteed with unequal sample sizes in the cells. Tabachinck and Fidell (p, 252) also suggest that in such a situation we should look at both the sample sizes and the sizes of the variances for the cells and that we should be concerned about the significance of the Box's M test if a trend is observed (e.g., cells with larger samples produce larger variances and cells with smaller sizes produce smaller variances). Following this suggestion, the current data variances were plotted versus the number of cases in the cells (see for example Figure 5.1 for 'extrinsic goal orientation'), yet no trends were observed and therefore the assumption of homogeneity of variance-covariance matrices was considered to be satisfied.
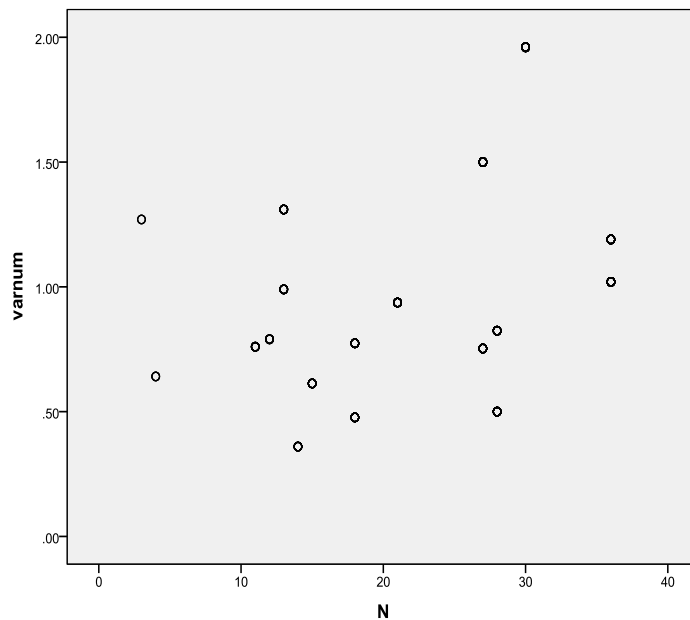
Figure 5.1. Variance versus cell size (n) for extrinsic goal orientation.

To test the absence of multicollinearity and singularity, the correlations (as shown in Chapter Seven) among dependent variables were examined. According to (Pallant, 2011) there should be moderate levels of correlation among dependent variables to perform a MANOVA/MANCOVA (0.3 to 0.49) and If the correlation is low one should consider running a separate univariate analysis of variance for various dependent variables, and if the level is up around 0.8 or 1, one may need to use one of the strongly correlated pairs of dependent variables or alternatively combine them to form a single measure. As discussed in Chapter Seven, all motivational beliefs were found to be moderately related (r =0.13 to 0.45).

The above description showed that no serious violations of the assumptions of MANCOVA were noted for the data on motivational scales and therefore a MANCOVA

was conducted. The results of the MANCOVA provided answers to the following three research questions: 'Are there significant differences in the motivational beliefs of males and females?'; 'Are there significant differences in the motivational beliefs of the students enrolled in various disciplines/departments of study?'; and 'Are there significant differences in the motivational beliefs of the students enrolled in the morning and afternoon shifts of study?' These results are presented in the following sections.

5.2.1 Multivariate effects.

MANCOVA showed that there were no significant interactions among the three independent variables. However it showed that there were significant multivariate effects of gender, department and shift of study on the motivational beliefs of the students. MANCOVA also showed that there was a significant multivariate effect of admission score on the motivational beliefs of the students as shown in Table 5.6.

Table 5.6

MANCOVA Summary (at p< .05)

Effects	Pillai's Trace	F	df	Error df	Sig.	Effect size Partial $\eta2$
Admission Score	.065	4.64	4	268	.001	.065
Gender	.050	3.50	4	268	.008	.050
Department	.143	2.50	16	1084	.001	.036
Shift of Study	.035	2.43	4	268	.048	.034
Gender * Shift	.024	1.62	4	268	.170	.024
Gender * Department	.045	.76	16	1084	.728	.011
Department * Shift	.044	.75	16	1084	.738	.011
Gender * Shift * Dept	.063	1.46	12.	810	.136	.021

These results indicated that there were significant differences in the motivational beliefs of the males and females, students enrolled in different departments, as well as between those enrolled in the morning and afternoon shifts of study.

Follow-up univariate tests were performed on each of the four motivational components (*extrinsic goal orientation, task value, self-efficacy for learning* and *test anxiety*) across gender, departments and shift of study. Levene's test of equality of error variance was found to be significant for extrinsic goal orientation at $p<.05$, thereby indicating the heterogeneity of the data/scores on *extrinsic goal orientation*. Figure 5.2 shows a plot of variance in each combination of gender/department/shift versus the mean *extrinsic goal orientation*.

(a)   (b)
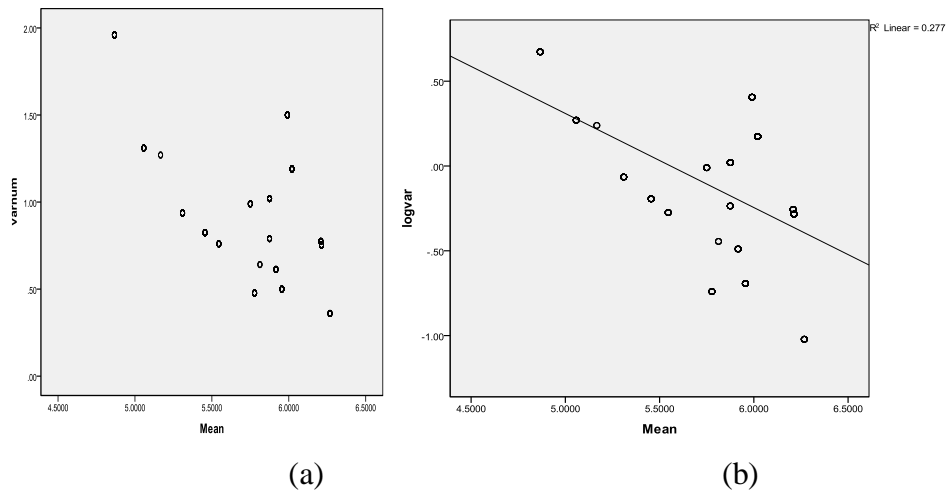
Figure 5.2. Variance versus mean scores for extrinsic goal orientation, panel a: raw variance and panel b: log variance.

To overcome the heterogeneity a weighted least squares analysis was undertaken (Draper & Smith, 1998, pp. 108-116). The weights were determined using the following steps:

1. A regression of log (variance) versus mean was fitted to the data.

2. Predictions from the model in Step 1 were obtained.

3. The weights were calculated as 1/ exp (predictions from Step 2).

Once the weights were determined, a univariate factorial ANCOVA was conducted with dependent variable *extrinsic goal orientation* and independent variables gender, department and shift, while controlling for the admission score. As expected, the Levene's test was not significant now, *p*=.256, indicating that using weights corrected the heterogeneity of the scores on *extrinsic goal orientation*.

Shown below are the results of the follow up analysis for each of the three independent variables: gender, department, and shift of study.

5.2.2 Gender.

Results of univariate analysis showed that females significantly differed from males on *extrinsic goal orientation* F (1, 335) = 5.93, p = .015. The partial η^2 was .017, which according to Cohen's (1988) criterion, can be classified as a small effect. A pair-wise comparison of the estimated marginal means of *extrinsic goal orientation* showed that

females were significantly more extrinsically motivated than males p = .014 (mean

difference = .45, SE = .18, 95% CI : 0.09 to .80) (Figure 5.3).
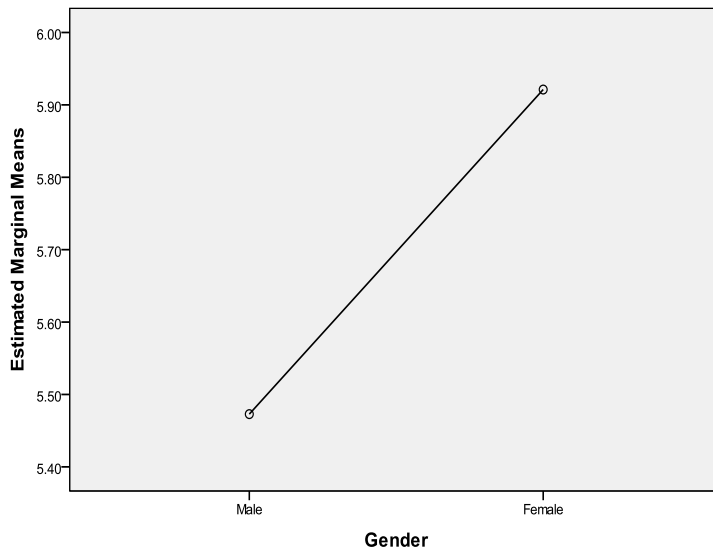
Figure 5.3. Extrinsic goal orientation among males and females

Results also showed that females significantly differed from males on *test

anxiety*, F (1, 271) = 10.68, p = .001. The partial η^2 was .038, which according to

Cohen's (1988) criterion, can be classified as small to moderate, which means that the

gender by itself accounted for only 4% of the overall variance. A pair-wise comparison

of the estimated marginal means showed that females were significantly more test

anxious than males p = .013 (mean difference = .58, SE = .22, 95% CI : 0.16 to 1.10)

(Figure 5.4).
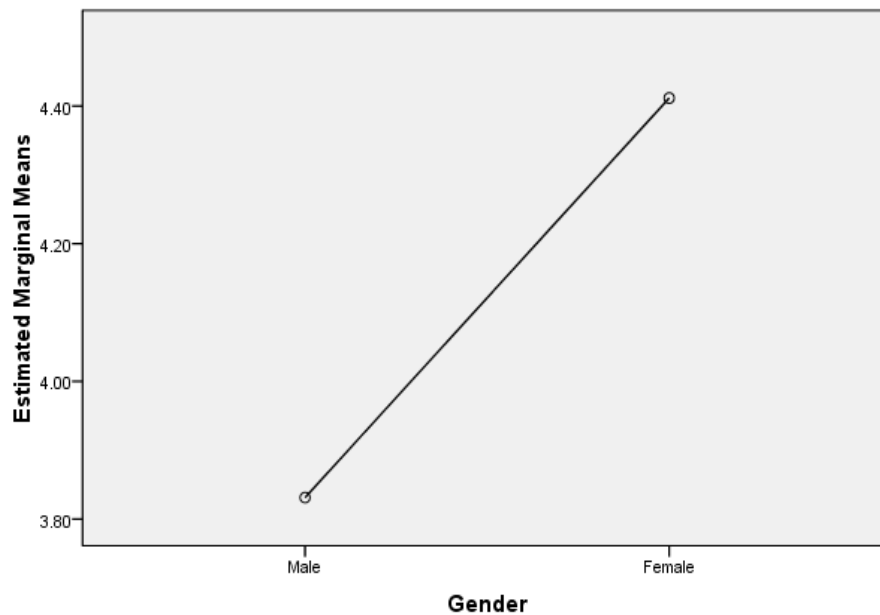
Figure 5.4. Test anxiety among males and females

5.2.3 Department of study.

Significant departmental differences were revealed in the motivational components of

task value F (4, 271) = 2.34, *p* = .055, partial η^2 = .033 (a small effect) and *test anxiety F*

(4, 271) = 3.97, *p* = .004, partial η^2 = .06 (medium effect). Pair-wise comparisons of the

estimated marginal means with Bonferroni adjustment for multiple comparisons

(Pallant, 2007, p. 276) showed that *task value* was significantly higher in the Department

of Mathematics than the Institute of Business and Information Technology (IBIT), with

p =.041 (mean difference = .51, SE = .18, 95% CI: 0.013 to 1.12)**,** indicating that the

students in the Department of Mathematics found their course material to be more

interesting, useful and important than the students in the IBIT.
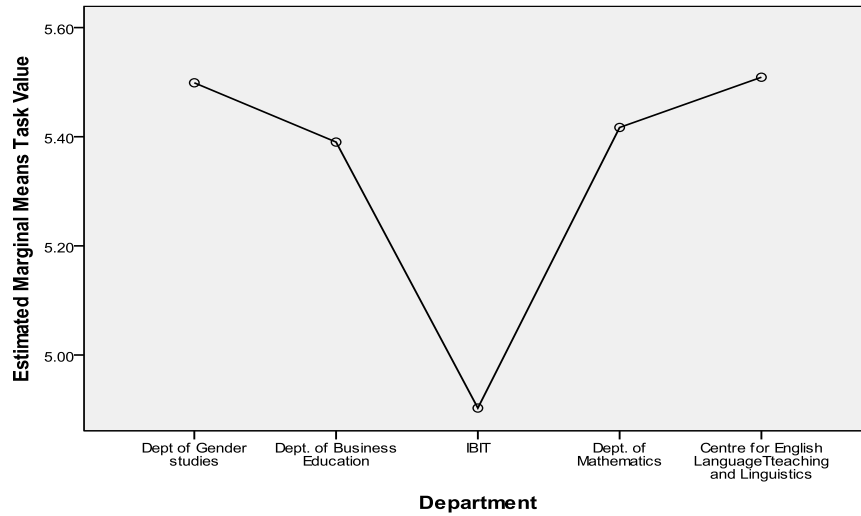
Figure 5.5. Task value across departments

It should be noted that although the CELTL had a higher mean score on Task value than DM (n = 116), its comparison with IBIT (*n* =79) was not found to be significant, which may be due to the smaller sample size in CELTL (*n* = 48).

The mean score for *test anxiety* was significantly higher for the Department of Business Education than the Department of Mathematics $p =.013$ (mean difference $=.70$, SE $= .21$, 95% CI: 0.096 to 1.30) (see Figure 5.6)
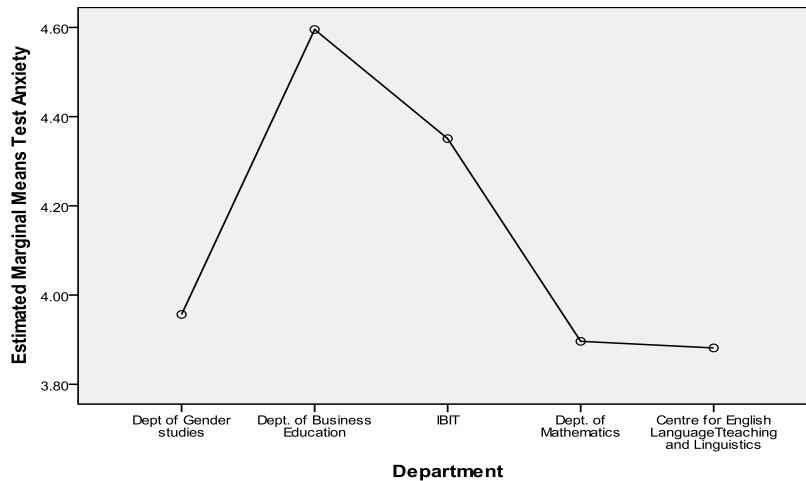
Figure 5.6. Test anxiety across departments

It is interesting to note that although the value of estimated marginal mean of test anxiety in CELTL was almost the same as in DM ($n= 116$), its comparison with DBE (n = 64) was not found to be significant. This may also be due to the smaller sample size in CELTL ($n = 48$).

5.2.4 Shift of study.

Results of the univariate tests showed that *test anxiety* was significantly different in the morning and afternoon shifts of study – $F (1, 271) = 7.57$, $p = .006$, partial $\eta2$ was .027, a small effect. A pair-wise comparison of the estimated marginal means of *test anxiety*, revealed that students enrolled in the morning shift were significantly more test anxious

than the students enrolled in the afternoon shift of study $p = .021$ (mean difference = .55, SE = .23, 95% CI: 0.08 to 1.01), indicating that the students in the morning shift were more worried and concerned about exams than the students in the afternoon shift.
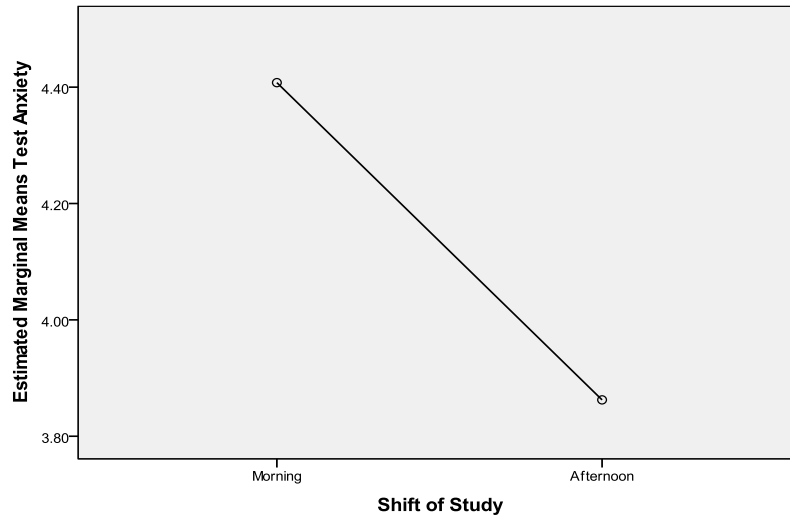
Figure 5.7. Test anxiety across shift of study

5.3 Summary

This chapter has presented the results of the descriptive and multivariate analysis of the data on motivational beliefs of the students. The analysis was focused on answering four research questions. The first research question was, 'What are the motivational beliefs of the students?' The results showed that the postgraduate students have strong motivational beliefs about themselves with high levels of value (*extrinsic goal orientation, task value)* and expectancy (*self-efficacy for learning*) beliefs. However they were generally not very anxious about exams and assessment.

The second research question was, 'Are there significant differences in the motivational beliefs of males and females?' The results revealed that males and females differed significantly from each other in their *extrinsic goal orientation*; females have higher levels of extrinsic motivation than males. The third research question was, 'Are there significant differences in the motivational beliefs across various departments of study?' Significant differences were revealed in the *task value* beliefs and *test anxiety* across departments. Students in the mathematics department had higher levels of *task value* beliefs than the students of IBIT. The current study also showed that *test anxiety* was significantly higher in the Department of Business Education as compared to the Department of Mathematics.

The last research question was, 'Are there significant differences in the motivation beliefs of the students enrolled in the morning and afternoon shifts of the study?' No significant differences were noted for *extrinsic goal orientation, task value* and *self-efficacy for learning* beliefs. However, students in the morning shift were found to be more test anxious than the students enrolled in the afternoon shift.

The next chapter (Chapter Six) presents the results of the analysis of data on course experiences of the postgraduate students.

Chapter 6

Course Experiences of the Postgraduate Students

This chapter describes the course experiences of the postgraduate students at the University of the Punjab, Lahore in two sections. The first section (6.1) presents the results of the descriptive analysis of the course experiences of the students and the second section (6.2), the results of the MANCOVA analysis of the course experiences of the students to determine significant differences between groups based on gender, department and shift of study.

6.1   Course Experiences of the Students

The research question to be answered in this section is 'What are the course experiences of the postgraduate students?' To answer this question, descriptive statistics (mean, standard deviation, skewness and kurtosis) were computed for each of the motivational and course experience scales. A series of independent sample t tests were conducted to determine if significant differences existed between males and females and between morning and afternoon shifts of study. Moreover eta squared (η^2) were also calculated manually to describe the magnitude of the differences in the means. These t tests were preliminary and did not take account of between- and within-department differences. However these preliminary tests provided information about the significant differences across gender and shift of study and consequently served as a basis for the inclusion of gender and shift as independent variables in a more sophisticated analysis using MANCOVA. The results of the MANCOVA are discussed next in Section 6.2.

Three scales, *good teaching, appropriate workload,* and *learning community and resources* were extracted as a result of the factor analysis of the data (Chapter 4, Section 4.2) and were used to measure the course experiences of the students. Scores (ranging from a possible 1 to 5) were calculated for all 368 students on each of the three course experience scales. These scores were calculated as the mean score of each student's responses to all items in each scale.

Before performing any statistical analysis, the data on course experience scales were analysed to check for missing values and normality. Little's MCAR test was found to be not significant, with p = .34, indicating that the cases were missing completely at random (Tabachnick & Fidell, 2007, p. 63)**.** The difference between the mean and medians was less than a third of a standard deviation for all scales (Table 6.1). Values of skewness and kurtosis as given in Table 6.1 indicate that distributions were normally distributed, and the normality of the distributions was also supported by Histograms and Kolmogorov-Smirnov tests (Table 6.2). This confirmation of normality was important for subsequent statistical analysis.

Table 6.1

Descriptive Statistics for Course Experience Scales

Course Experience	*M*	MID	*SD*	MIN	MAX	Skewness	Kurtosis
Good Teaching	3.66	3.71	0.78	1.00	5.00	-0.72	0.58
Appropriate Workload	3.29	3.25	0.69	1.25	5.00	-0.30	-0.13
Learning Community and Resources	3.60	3.62	0.59	1.13	5.00	-0.72	1.22

Table 6.2

Kolmogorov-Smirnov Test for Course Experience Scales.

		Good Teaching	Learning Community and Resources	Appropriate Workload
N		48	43	42
Normal Parametersa,b	Mean	3.51	3.72	3.28
	Std. Deviation	.80	.49	.65
Most Extreme Differences	Absolute	.10	.12	.12
	Positive	.05	.11	.12
	Negative	-.10	-.12	-.09
Kolmogorov-Smirnov Z		.68	.79	.81
Asymp. Sig. (2-tailed)		.75	.56	.53

a. Test distribution is Normal.

Note: Test was conducted on 50 (n=50) random cases from the sample

The *good teaching* scale assessed the degree to which students felt that the

teaching staff of their course provided a high level of teaching quality. Six items were

included in this scale and students were moderately satisfied ($M = 3.66$, $SD = 0.78$) with

the quality of teaching, as the mean score on all items were slightly midpoint of 3 (see

Table 6.3) with the highest being for the item L23 ($M = 3.99$, $SD = 1.16$) and the lowest

for the item L1 ($M = 3.33$, $SD = 1.10$). Students perceived their teachers to be good at

explaining concepts ($M=3.69$, $SD =1.07$) and working hard to make the subject

interesting for them ($M=3.76$, $SD = 1.03$).

The *appropriate workload* scale assessed the degree to which students felt the

workload involved in their course was excessive. Four items were included in this scale

(Table 6.3). Overall students perceived their workload to be of moderate level ($M =$

3.29, $SD = 0.69$). The mean scores on all items ranged from $M = 3.21$ to $M = 3.53$,

indicating that the students perceived their work load to be neither too light nor too

excessive. The *learning community and resources* scale measured the sense of

community experienced by students as well as their satisfaction with the available

resources whilst studying a course. A *learning community* referred to an environment in

which students were encouraged to explore new ideas and were encouraged to share

knowledge in an intellectually stimulating setting. This also assessed the extent to which

they felt they belonged to that community. *Learning resources* referred to the library and

information technology resources as well as the time available for learning and

understanding. Eight items were included in this scale and the mean scores of all items

(Table 6.3) as well as of the scale ($M= 3.63$, $SD = 0.59$) were above average indicating

that students perceived their community to be a learning community where they can

share and explore knowledge and new ideas with staff and other students and they were

also provided with sufficient resources to support their learning.

Table 6.3

Descriptive Statistics for Items on Course Experience Scales

Item No	Items	M	SD
	Good Teaching	3.69	1.07
L23	Students' ideas and suggestions are used during the course.	3.99	1.16
L27	Teaching staff work hard to make subject interesting.	3.76	1.03
L24	Lecturer is extremely good at explaining things to students.	3.62	1.12
L13	The staff make a real effort to understand difficulties students may be having with their work.	3.62	1.03
L25	Course materials are relevant and up to date.	3.61	1.13
L1	The teaching staff of this course motivate students to do their best work.	3.33	1.10
L22	The study materials are clear and concise.	3.69	1.07
	Appropriate Workload	3.29	0.69
L16	There is a lot of pressure on you as a student.	3.53	1.22
L14	It's often hard to discover what is expected of you in this course.	3.22	1.01
L21	The sheer volume of work to get through this course means you cannot comprehend it all thoroughly.	3.22	.92
L4	The workload is too heavy.	3.21	1.13
	Learning Community and Resources	3.60	0.59
L11	Where it is used, the information technology in teaching and learning is effective.	3.83	1.01
L18	I can explore ideas confidently with other people.	3.70	1.02
L26	I feel I belong to the university community.	3.63	1.12
L6	I feel part of a group of students and staff committed to learning.	3.62	.93
L8	You usually have a clear idea of where you are going and what is expected of you.	3.57	1.03
L12	I am able to explore academic interests with staff and other students.	3.56	.95
L17	It is made clear what resources are available to help me learn.	3.46	.99
L10	We are generally given enough time to understand the things we have to learn.	3.45	1.11

A series of independent sample t tests (Table 6.4) were conducted to explore the

differences in the experiences of males and females and students enrolled in the morning

and afternoon shifts of study. Significant differences were revealed in the perceptions of

teaching quality between males (*M* = 3.51, *SD* = 0.73) and females (*M* = 3.75, *SD* =

0.79), *t* (351) = 2.82, *p* = .005, with females indicating that they were more satisfied with

the quality of teaching, although the magnitude of the difference was very small (η2 =

.02). No significant gender differences were observed in the experiences of workload

and learning community and resources.

Table 6.4

Course Experiences of Males and Females

Course Experiences	Male		Female		*t* (df)	*p*	95% CI		*η2*
	M	*SD*	*M*	*SD*			LL	UL	
Good Teaching	3.51	0.73	3.75	0.79	-2.82(351)	.005	-0.41	-0.07	.022
Appropriate Workload	3.21	0.68	3.34	0.70	-1.77(337)	.078	-0.29	0.02	.013
Learning Community and Resources	3.53	0.63	3.64	0.57	-1.54(326)	.125	-0.24	0.03	.007

Results also showed that there were significant differences between morning and

afternoon shifts on all course experience scales (see Table 6.5) although the magnitude

of this difference was small (*η2* = .02), thereby suggesting that the students enrolled in

the morning and afternoon shifts of study had slightly different experiences this might

be expected, given the differences in the entry characteristics of the students enrolled

these shifts.

Table 6.5

Course Experiences across Shift of Study

Course Experiences	Morning shift		Afternoon Shift		*t (df)*	*p*	95% CI		*η2*
	M	*SD*	*M*	*SD*			LL	UL	
Good Teaching	3.56	0.79	3.76	0.75	-2.24(351)	.016	-0.36	-0.04	.016
Appropriate Workload	3.19	0.71	3.41	0.66	-2.91(337)	.004	-0.37	-0.07	.020
Learning Community and Resources	3.52	0.61	3.69	0.56	2.57(326)	.011	-0.29	-0.04	.025

The results of the t tests in the previous section revealed that there were significant gender differences and shift differences in the course experiences of the students. However, as the t test did not take account of the within and between department differences, a three way factorial Multivariate Analysis of Covariance (MANCOVA) was performed, with gender, departments of study, and shift of study as the three independent variables and three course experiences (*good teaching, appropriate workload* and *learning community and resources*) as dependent variables, while controlling for the effect of *admission scores* as a covariate.

6.2   Multivariate Analysis of Covariance (MANCOVA) of Course Experiences of Postgraduate Students

This section is focused on following three research questions:

1.   Are there significant differences in the course experiences of males and females?

2. Are there significant differences in the course experiences of the students enrolled in the morning and afternoon shifts of the study?

3. Are there significant differences in the course experiences of the students enrolled in various disciplines of study?

Before proceeding with the main MANCOVA analysis, data on the three course experience scales were examined for suitability of performing MANCOVA by testing assumptions of normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices and multicollinearity and singularity. No serious violations of these assumptions were noted. The data were normally distributed on the three course experience scales (see Section 6.1). In order to test assumptions of multivariate normality and absence of outliers, Mahalanobis distances were calculated for the three course experience scales(Pallant, 2011, p. 286). The maximum value of Mahalanobis distance for course experience variables was 23.19. This value was larger than the critical value of 16.27 at $\alpha=0.001$, thereby indicating the presence of multivariate outliers in the data. An examination of the data showed that only two students had scores that exceeded the critical value of 16.27. These were students with ID = 324 and a score of 23.19 and ID = 101 with a score of 17.08. As the number of outliers was very small and their scores were not too high, these students were left in the data file as suggested by Pallant (2011, p. 288)

The assumption of linearity – that is, there is a linear relationship among all pairs of DVs, all pairs of covariates and all DV-covariate pairs in each cell – was also satisfied

through an examination of matrix of scatter plots Pallant (2007, p, 281). All course experiences in general were significantly (but moderately) correlated with each other (r = 0.1 to r = 0.55) thereby indicating the absence of multicollinearity and singularity (Pallant, 2007, p. 281). Box's M test of equality of variances was not significant, with p=.11 indicating the homogeneity of variance-covariance matrices. After satisfactory fulfilment of the assumptions, a MANCOVA was performed. The detail of the results is outlined in the following sections.

6.2.1 Multivariate effects.

MANCOVA showed that there were no significant interactions among the three independent variables. MANCOVA also showed that there was a significant multivariate effect of admission score on the course experiences of the students, F (3, 279) = 2.68, p=.47; Pillai's Trace = 0.28 partial $\eta2$ = .028. MANCOVA also revealed significant multivariate effects/main effects of gender, department and shift of study on the course experiences of the students as shown in Table 6.6.

Table 6.6

MANCOVA Summary (at p< .05)

Effects	Pillai's Trace	*F*	*df*	Error *df*	Sig.	Effect size Partial *η2*
Admission Score	.028	2.68	3	279	.047	.028
Gender	.048	4.71	3	279	.003	.048
Department	.101	2.43	12	843	.004	.034
Shift of Study	.035	3.42	3	279	.018	.035
Gender * Shift	.105	1.46	3	279	.226	.015
Gender *department	.062	1.57	12	843	.074	.023
Department *Shift	.065	1.56	12	843	.098	.022
Gender * Dpt * Shift	0.39	1.87	6	560	.084	.020

These results indicated that there were significant differences in the course experiences of the males and females, students enrolled in different departments and in morning and afternoon shifts of study. Follow-up univariate tests were performed on each of the three course experience scales (*good teaching, appropriate workload* and *learning community and resources*) across gender, departments and shift of study. Levene's Test of Equality of Error Variance was found to be significant for *learning community and resources* at p<.05, thereby indicating the heterogeneity of the data/scores on the *learning community and resources* scale. To overcome the heterogeneity a weighted least squares analysis was undertaken (Draper & Smith, 1998, pp. 108-116). The weights were determined using steps as described in Chapter 5 (Section 5.1.1) and univariate factorial ANCOVA was conducted with the dependent variable being *learning community and resources* and the independent variables gender, department and shift, while controlling for students' admission score. As expected, after

weighting, the Levene's test was not significant (p=.277), indicating that using these weights had corrected the heterogeneity of the scores on *learning community and resources*.

Outlined below are the results of the follow-up analysis for each of the three course experiences across independent variables: gender, department, and shift of study.

6.2.2   Gender.

Significant differences were observed between males and females on the course experiences of good teaching, F (1,281) = 13.49, $p<001$ and partial η^2 = .046. A pair-wise comparison of the estimated marginal means showed that the mean score for females on the *good teaching* scale was significantly higher than for males, p = .001 (mean difference = .39, SE = .12, 95% CI: 0.16 to 0.62.)
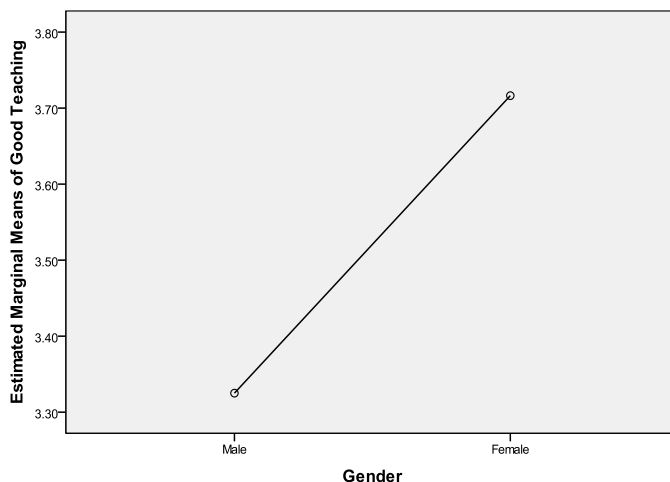
Figure 6.1. Estimated marginal means of males and females on good teaching Scale

6.2.3   Department.

Significant differences were observed among departments on all course experiences, *good teaching*, $F(4,281) = 3.28$, $p = 0.012$, partial $\eta^2 = .045$, *appropriate workload*, F $(4,281) = 2.82$, $p = 0.026$, partial $\eta^2 = .039$ and *learning community and resources* F $(4,309) = 3.39$, $p = .01$, partial $\eta^2 = .42$.

Pair-wise comparisons of the estimated marginal means with Bonferroni adjustment for multiple comparisons (Pallant, 2007, p. 276) showed that the mean score for *good teaching* was significantly higher in the Department of Mathematics than the Centre for English Language Teaching and Linguistics $p = .04$ (mean difference = .53, SE = .18, 95% CI: 0.018 to 1.047) (See Figure 6.2).
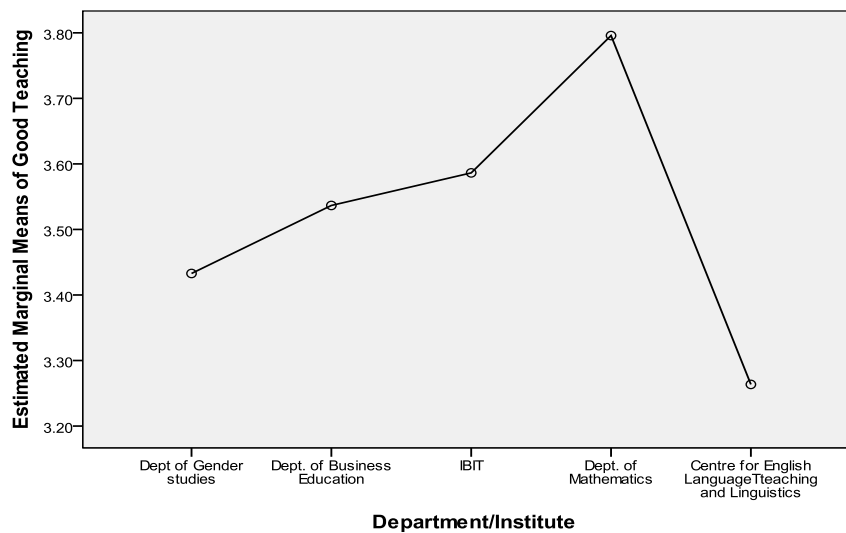
Figure 6.2. Estimated marginal means of good teaching scale across departments

Similarly the mean score for *learning community and resources* was significantly higher in the Department of Mathematics (DM) than in the Institute of Business and Information Technology (IBIT) $p = .008$ (mean difference = .36, SE = .11, 95% CI: .06 to .66), thereby indicating that students in DM were more satisfied with their experience of *learning community and the resources* available to them as compared to the students in IBIT (See Figure 6.3).
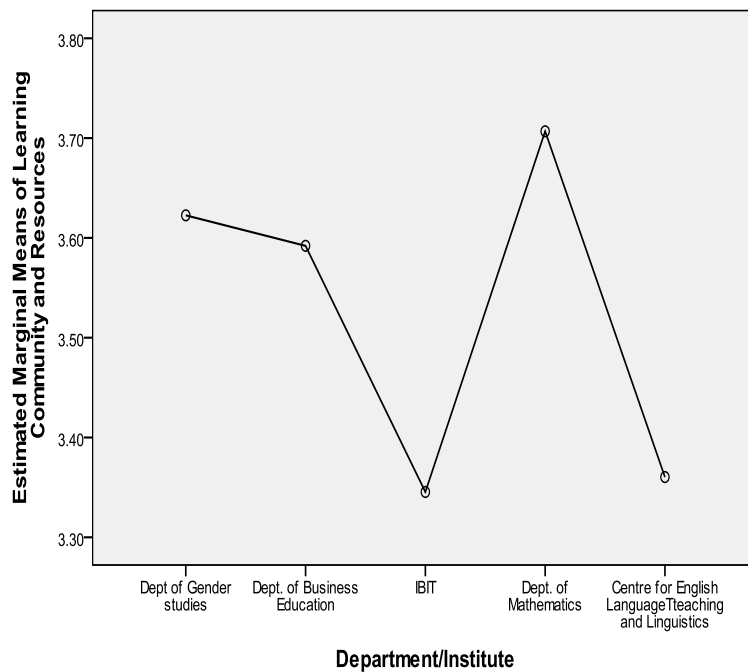
Figure 6.3. Estimated marginal means of learning community and resources scale across departments

It is interesting to note that although the value of estimated marginal mean of *learning community and resources* in CELTL ($n = 48$) was almost the same as in IBIT (n= 79), its comparison with DM (n = 116) was not found to be significant. This may be due to the smaller sample size in CELTL ($n = 48$) (Figure 6.3).

No significant differences were revealed across departments in students' perceptions/experiences of *workload*.

6.2.4 Shift of study.

Significant differences were observed between morning and afternoon shifts of study on the course experience factor of *learning community and resources*, $F(1, 309) = 5.24$, $p = .023$, Partial $\eta^2 = .017$. A pair-wise comparison of estimated marginal means showed that the mean score for the afternoon shift was significantly higher than the mean score for the morning shift, p = .003 (mean difference = .30, SE = .10, 95% CI: .10 to .51).
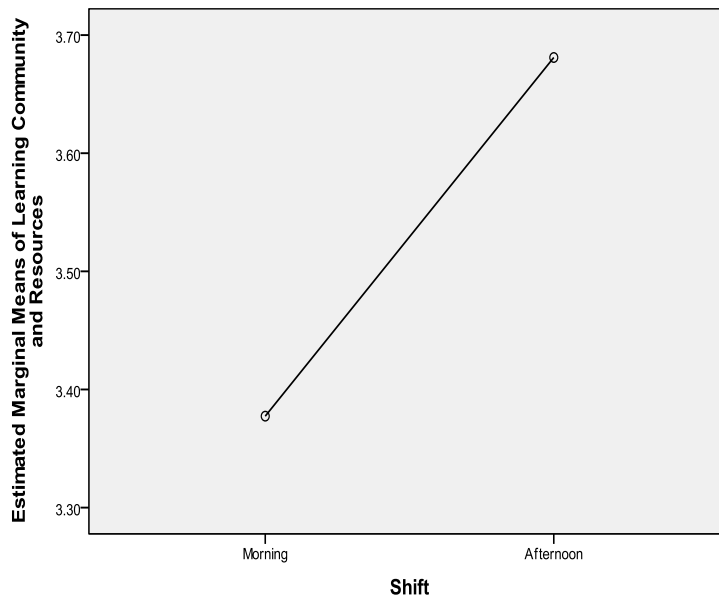
Figure 6.4. Estimated marginal means of learning community and resources scale in morning and afternoon shifts

6.3   Summary

This chapter has examined in detail the results of the analysis of data on course experiences of the postgraduate students. In this analysis focusing on both the descriptive and analytical statistical results, students' scores on three course experience factors/components have been considered.

The results showed that the postgraduate students were generally satisfied with their course experiences at the University of the Punjab. They perceived the quality of the teaching to be good and considered their teachers to be good at explaining things, making the subject interesting, using students' ideas during the course and trying to

motivate students to learn. Students perceived the workload to be of an appropriate level and considered that they belong to a learning community where they could explore new ideas and share knowledge with staff and students. They were satisfied with the resources available for their effective learning.

Results of the MANCOVA for between-group comparisons lead to the conclusion that females were more satisfied with the quality of teaching than males, whereas no gender differences existed in the experiences of *workload,* and *learning community and resources*. Multivariate analysis also revealed that course experiences varied significantly across different departments of study, thereby indicating that students in different disciplines had different levels of satisfaction with regard to the quality of *good teaching, workload* and *learning community and resources* available to them. Students in the Department of Mathematics were more satisfied with the quality of teaching than the students in the Centre for English Language Teaching and Linguistics. Similarly, students in the Department of Mathematics were more satisfied with their learning environment and resources than the students in the IBIT.

Students' perceptions of the *learning community and resources* were also significantly different in the morning and afternoon shifts of study, such that the students in the afternoon shift held more positive views about their *learning community and resources* available to them. This finding is quite interesting because the students in both shifts were being taught the same subjects by the same teachers. Differences in their perceptions of *learning community and resources* suggest that these differences may be

due to the differences in students' personal (such as age) and entry level characteristics related to theiradmission scores.

Moving from the motivational beliefs as discussed in the previous chapter (Chapter Five) and course experiences of the students as discussed in this chapter, the next chapter (Chapter Seven) will consider in detail the results of the correlation analysis among the three main variables of the study, namely, the motivational beliefs, course experiences and academic achievement of the students.

Chapter 7

Relationships among Motivational Beliefs, Course Experiences and Academic Achievement of the Students

The previous chapters have presented the motivational beliefs (Chapter Five) and course experiences (Chapter Six) of the postgraduate students. This study also aimed to explore the relationships among the motivational beliefs, course experiences, socioeconomic status (SES) and academic achievement of the students. This chapter is divided into three sections presenting the results of the correlation analysis. The first section (7.1) presents the results of the correlation analysis of the motivational beliefs and course experiences with academic achievement; the second section (7.2) presents the results of the correlation analysis between the motivational beliefs and course experiences of the students, while the third section (7.3) presents the correlation analysis of the motivational beliefs and course experiences with the background factor of parents' socioeconomic status (SES). To explore these relationships, Pearson product-moment correlations were computed and coefficients were interpreted in terms of the size as small/ low r = .10 to .29, medium r = .30 to .49, large/ high r= .50 to 1.0 (Cohen, 1988, pp. 79-81) and they were also tested for significance at either the .05, or .01 level. Each of the sections below presents the results according to the specific research questions.

7.1 Correlations between Motivational Beliefs, Course Experiences and Academic Achievement

The two research questions to be answered in this section are:

1. Is there any significant relationship between the motivational beliefs and academic achievement of the students?

2. Is there any significant relationship between the course experiences and academic achievement of the students?

In response to the first research question, the results of the correlational analysis (Table 7.1) showed that there was a low but significant positive correlation between *self–efficacy for learning* and *academic achievement* of the students for the course in which they took the MSLQ, r (359) = 0.15, p = .005, indicating that higher levels of *self-efficacy* were associated with higher levels of student *achievement.* This indicates that the students who had high *self-efficacy* beliefs were more likely to do well in terms of course grades. This relationship between *self-efficacy* and *academic achievement* supports the findings of previous research by Pintrich et al. (1993) with college students, by Watson et al. (2004) where *academic achievement* was positively correlated with *self-efficacy* in a group of first year university students, and in a study conducted by Bhattacharyya (2007) in which self-efficacy was found to be a significant predictor of academic achievement among pre-service teachers from India and the United States. This result also supports the results of previous research (Crede & Phillips, 2011; Pintrich, et al., 1993) regarding the predictive validity of the *self-efficacy* scale in relation to academic performance.

Table 7.1

Correlations between Motivational Beliefs and Course Experiences and Academic

Achievement

Motivational Beliefs/Course Experiences	Achievement score
Extrinsic Goal Orientation	.02
Task Value	.02
Self -efficacy for Learning	.15**
Test Anxiety	-.18**
Good Teaching	.10
Appropriate Workload	-.17**
Learning Community and Resources	.16**

Note. **Correlation is significant at the level 0.01(2 tailed)

　　　　*Correlation is significant at the level 0.05(2 tailed)

Test anxiety was found to be significantly and negatively correlated r (338) = -

.18, p = .001 with academic achievement, suggesting that higher levels of *test anxiety*

were associated with lower levels of academic achievement. This result is consistent

with the results of the previous research with college students (Pintrich, et al., 1993), as

well as graduate and postgraduate students (DordiNejad et al., 2011; Hancock, 2001;

Rana & Mehmood, 2010; Watson, et al., 2004). It indicates that the students who

reported being anxious about tests were less likely to do well in the course.

In response to the second research question the results showed that despite the

high level of satisfaction with the quality of teaching, no significant relationship existed

between students' perceptions of the *good teaching* and their *academic achievement*.

This result stands in contrast to the findings of research by Diseth (2007) where a strong relationship was reported between the course experience variable of *good teaching* and *examination grades*. However, a low but significant positive correlation was noted between the course experience factor of *learning community and resources* and the *achievement score r* (328) = .16, *p* =.003, suggesting that students' perceptions that they belonged to a learning community and environment in which they were encouraged to explore new ideas as well as to share knowledge in an intellectually stimulating setting and available resources were associated with better academic performance. This significant relationship supports and extends the findings of previous research concerning the role and importance of the sense of belongingness for positive outcomes at the postgraduate level of study (Freeman, Anderman, & Jensen, 2007). The academic workload was significantly but negatively correlated with *academic achievement* thereby indicating that inappropriate workload may lead to poor academic performance. This result stands in contrast to the findings of the research by Diseth (2007) where a strong positive relationship was reported between examination grades and the course experience variable of *appropriate workload*.

7.2 Correlation among Motivational Beliefs and Course Experiences

The research question to be answered in this section is, 'Are there any significant relationships among the motivational beliefs and course experiences of the students?'

Significant correlations were revealed among almost all motivational beliefs and course experience factors. The detail of the results is shown in Table 7.2. It is interesting to note that a significant positive correlation existed between *extrinsic goal orientation* and two course experience factors i.e. *good teaching, r* (342) = .20, *p* = .001 and *learning community and resources, r* (317) = .24, *p* =.001. Similarly, significant positive and moderate correlations were revealed between *task value* and *good teaching r* (305) = .38, *p* = .001 and *learning community and resources, r* (283) = .36, *p* = .001. These correlations indicate that *extrinsic goal orientation* and *task value* beliefs facilitated and may have led to positive course experiences.

Table 7.2

Intercorrelations between Motivational Beliefs and Course Experiences

Motivational Beliefs	Course Experiences		
	Good Teaching	**Appropriate Workload**	**Learning Community and Resources**
Extrinsic Goal Orientation	.20**	.09	.24**
Task Value	.38**	.004	.36**
Self-efficacy for Learning	.26**	-.19**	.28**
Test Anxiety	-.04	.21**	-.14*

Note. **Correlation is significant at the level 0.01 (2 tailed).

*Correlation is significant at the level 0.05 (2 tailed).

Self-efficacy for learning was also significantly related to the course experience factors of *good teaching* and *learning community and resources* (see Table 7.2), thereby

suggesting that positive *self-efficacy* beliefs may have led to better/positive course experiences. However, *self-efficacy* beliefs were negatively correlated to the course experience factor of *appropriate workload*, r (332) = -.19, p = .001, indicating that excessive workload may have led to poor self-efficacy beliefs.

A significant positive correlation was also revealed between *test anxiety* and *appropriate workload*, r (314) = .21, p = .001, indicating that *test anxiety* was higher if the workload was perceived to be not appropriate. In contrast, a low but significant negative correlation, r (305) = -.14, p = .01 between *test anxiety* and the course experience factor of *learning community and resources* indicated that test anxiety may have been lower if the students felt that they belonged to a learning community where they could explore new ideas and were encouraged to share knowledge in an intellectually stimulating setting with access to appropriate resources.

7.3   Correlations between Parents' SES, Motivational Beliefs, Course Experiences and Achievement Score

The three research questions to be answered in this section are:

1. Is there a significant relationship between parents' SES and the motivational beliefs of the students?',

2. Is there a significant relationship between parents' SES and the course experiences of the students?

3. Is there a significant relationship between parents' SES and the achievement scores of the students?

Parents' SES did not significantly relate to students' motivational beliefs and course. However a low but significant negative correlation r (387) = .12, p=.04 was noted between parents' SES and students' achievement scores, indicating that the postgraduate students whose parents' had higher SES did not perform as well as the other students academically. This result stands in contrast to previous research by McConney and Perry (2010) and Sirin (2005).

Table 7.3

Correlations between Parents' SES, Motivational Beliefs, Course Experiences and Academic Achievement

Motivational Beliefs/Course Experiences/Academic Achievement	Parents' SES
Extrinsic Goal Orientation	-.10
Task Value	-.04
Self-efficacy for learning	.10
Test Anxiety	.01
Good Teaching	-.03
Appropriate Workload	.07
Learning Community and Resources	-.01
Achievement Score	-.12*

Note. *Correlation is significant at the level 0.05(2tailed)

7.4 Summary

This chapter presented the results of the correlation analysis. Students' *achievement scores* were found to significantly and positively correlate with the *self-efficacy for learning* beliefs and course experience factor of *learning community and resources*. In contrast, achievement scores were significantly and negatively correlated with *test anxiety* and *workload*. Significant correlations were found between almost all motivational beliefs and course experiences. *Extrinsic goal orientation* positively correlated with the course experience factors of *good teaching* and *learning community and resources*. Similarly, *task value* as well as *self-efficacy for learning* also positively correlated with *good teaching* and *learning community and resources*. However *self-efficacy* negatively correlated with *appropriate workload* and *test anxiety* negatively correlated with the course experience factor of *learning community and resources*.

The next chapter (Chapter Eight) presents the results of the analysis of data about the future plans of the students.

Chapter 8
Future Plans of the Students

An objective of this study was to explore the future plans of the postgraduate students so as to better understand the relationship between their life goals, motivations and course experiences. For this purpose participants were requested to answer five (three open-ended and two structured response) questions in the last section of the questionnaire (Part IV). This chapter is devoted to the presentation of the results of the analysis of students' responses to these questions. It is divided into four sections. The first section (8.1) describes the results of the analysis of students' responses to an open-ended question 'I decided to do my current degree because…'

The second section (8.2) presents the results of the descriptive as well as multinomial logistic regression analysis of the students' responses to a set of five structured response questions about the importance of various future activities such as doing a job, further study, getting married and having a family.The third section (8.3) describes the results of students' responses to an open-ended question about the career/job that they preferred after completing their current degree and finally, the last section (8.4) describes the reasons for choosing the various careers/ jobs as mentioned by the students in Section 8.3

The analysis of the responses to these open ended questions (in Sections 8.1, 8.3 and 8.4) was done in three stages. In the first phase, core words and ideas were identified by marking words and phrases in the answers. In the second phase these core ideas and words were classified and grouped into main themes andcategories and in the third phase

these themes were grouped under common themes across all departments. A frequency count was carried out and percentages calculated for the responses under each theme.

8.1   Reasons for Doing Current Degree

It is a common observation that the majority of the students in Pakistan either aspire to or start a postgraduate degree immediately after completing their undergraduate studies, because if they delay their postgraduate study it would be harder for them to get admission, since priority is given to the most recent graduates. In order to explore the reasons for doing their postgraduate degree, an open-ended question was asked. Table 8.1 presents the frequencies and percentages of the students' responses under various themes across all departments of study. Many students gave more than one response and were therefore counted in more than one response theme or category.

Table 8.1

Students' responses to the Question: 'I decided to do my current degree because:' (Total n = 334)

Responses/Themes	DGS (*n*=63)	IBIT (*n*=79)	DM (*n*=100)	DBE (*n*=61)	CELTL (*n*=31)	Count	Percentage of Respondents
To get a job	17	22	43	28	15	125	37.43
Personal interest and liking	14	14	33	7	7	75	22.45
To get higher degree/ Study further after Bachelors degree	4	20	15	12	4	55	16.47
Knowledge and learning	21	9	10	6	7	53	15.87
Better future and good life	8	3	15	4		30	8.98
Couldn't get admission anywhere else/institution of their first choice	6	10	2	6	2	26	7.78
Parents' wish	4	4	3	2		14	4.19
Study at prestigious institution like Punjab University	2	1	1	2	1	7	2.10
Time pass/ no clear vision	3	2				5	1.50
Total						383	114.67

8.1.1 Getting a job.

Thirty seven per cent of the respondents reported that they were doing their current degree because it would enable them to get a good job. The highest number of respondents belonged to this response category across all departments, thereby indicating the expected link between higher education and better perceived job prospects.

Given below are examples of the students' responses saying that they were doing their current degree to get a job.

I decided to this degree because I want to do job and be independent. (Female, DGS, 11)

I think it may be useful in my future for jobs like in government and private sector. It is also very useful for living good life. (Male, DGS 21)

This degree covers all the courses of business and IT and will help me to get a job in a multinational company. (Male, IBIT)

Because I want to secure my future in financial terms getting a better job and to gain some knowledge too. (Female, IBIT)

I want to do a job and I am interested to get this degree. (Female, DM)

I want to support my family. I want to do some reasonable job. So that I can do what I want. (Female, DM)

I want to get a master's degree firstly because I want to continue my studies and I want to have a job. It is related with my best education and I decided to do it. (Male, DBE)

I decided to do my degree because I want to do job in respected company or become lecturer in good institute. (Female, DBE)

To develop my English and to be able to get a handsome source of money. (Male, CELTL).

I wanted to get degree to get a reasonable job. (Female, CELTL)

These responses indicated that the students were studying for their current degree with the hope of access to better job opportunities in future. A possible explanation for these responses is that in Pakistan most of the good government jobs (Grade 17 and above), as well as good jobs in the private sector require a postgraduate/or a Masters level degree. These jobs are generally considered to be prestigious due to the social respect, financial benefits and official power that they offer. The jobs that are available to undergraduates and bachelor degree holders are comparatively lower paid with fewer benefits.

8.1.2   Personal interest.

Personal interest was another important reason mentioned by 20.60 % of the respondents for doing their current degree:

> I have a lot of interest in this subject and therefore I want to learn about it. The concepts of each course get clear very easily. (Female, DM)

> I have good interest in this subject. (Male, DM)

> I have a lot of interest and can understand it much better than others. (Female DM)

> I love mathematics. (Male, DM)

> I like this subject. (Female, DGS)

> I like the area of gender studies. (Male, DGS)

I am most interested in studying management subject. (Female IBIT)

I have interest in business and finance. (Male, IBIT)

I have interest in business education and after this degree I think I can best handle the business. (Male, DBE)

Because of my own interest and its scope. (Female, CELTL)

These responses indicated that students joined their postgraduate degrees due to personal interest in that subject area.

8.1.3 Higher qualification/ degree.

Over sixteen per cent of the respondents reported that they were doing their current degrees to get a higher education/ qualification.

To learn more in mathematics and want to become a master degree holder. (Female, DM)

I was fond of getting higher education. (Female, DM)

It is important in this era to have higher education and to broaden my own view about things. (Female, CELTL)

Because I just wanted to study further after B.A and do not want to waste time sitting at home. (Female, DGS)

I want get a degree in business area so I choose MBE (Master of Business Education). (Female, DBE)

These responses reflect that these students wanted to have a masters or postgraduate degree as part of their qualifications. It is also interesting to note that most of the respondents under this category were females. This may be due to the fact that recently many parents in Pakistan want their daughters to have a good educational qualification, firstly because it might increase their marriage prospects and the likelihood of having qualified life partners and husbands, and secondly if they want to have a career at some later stage in life they may be able to get a job more easily.

8.1.4 Better future.

Almost nine per cent linked their degree to a better future and life in their responses.

> I think it may be useful in my future for jobs like in government and private sector. It is also very useful for living a good life. (Male, DGS)

> I decided to do my current degree because I want to get higher education and have a bright future. (Female, DM)

> For the improvement of my family situation and also for my brothers' future because my parents' future depend on them. (Female, DM)

> I decided to do my current degree because it will help me to make my future bright. I can get a good job and learn so many things from it. (Female, CELTL)

> I want to get higher education. It is very important for my future. (Female, DM)

> It is a path to move towards professional life and this is a major reason for me. (Male, IBIT)

The degree will prove to be gateway to success. (Male, DBE)

These responses are a reflection of the link between higher education and living a better life both socially and economically.

8.1.5   Knowledge and learning.

Almost sixteen per cent of the respondents reported that they were doing this degree for knowledge and learning. By knowledge and learning they meant the knowledge about various issues relevant to their field of study and an awareness of the ways to resolve these issues. They also mentioned the development of their skills as a result of this degree. Most of the students under this response category were from the DGS.

I want to know, what the rights of women are and what happened with women in world. (Female, DGs)

Just because of getting knowledge and for learning (Female, DGS)

Want to know about human behaviour and psychology, so I decided to do MA in gender studies. Here we learn about both males and females who make up this society. (Female, DGS)

I want to have some knowhow of business, which would be helpful for me in future. (Male, IBIT)

To gain enough knowledge of difference courses/discipline I decided to choose this degree. (Male, IBIT)

I want to learn mathematics and get more education. (Male, DM)

I want to learn more things in mathematics. (Female, DM)

I want to improve my English which is not so good. I want to know about English language. (Female, CELTL)

I expect and I am sure this degree will help to improve my skills as an English language teacher. (Female, CELTL)

8.1.6   Fallback option

A small percentage (7.78 %) of the respondents reported that they were doing their current degree because they could not get admission to an institution of their first choice (due to higher admission merit requirements). These respondents belonged to the IBIT (n=10), DBE (n=6), and DGS (n=6) and responded with the following comments:

I didn't get admission anywhere else that is why I come here for my current degree. (Female, DGS)

There are two reasons: 1st I was not able to get admission in Psychology department and 2nd I have interest in English department and I want to improve my English. (Female, CELTL)

Because I did not get admission in other subject/department but now I like this course/degree. (Male, DGS)

I didn't get admission anywhere else that why I come here for my current degree. (Female, DGS)

This is the only institution where I get admission. (Female, IBIT)

I did not get anywhere else plus IT thing trigger me up as an edge over simple MBA. (Male, IBIT)

I could not get admission in Halley College of Commerce due to less marks. It was my passion therefore I would like to get admission here because this department is related to business subject. (Male, DBE)

I want to get admission in English department but I missed the entry test so by chance I decided to do current degree. (Female, CELTL)

It is worth mentioning that the admission merit was the lowest in the Department of Gender Studies which had a majority of female students and only five males in total.

8.1.7 To fulfil parents' wishes.

A very small percentage (4.19 %) of the respondents mentioned the hopes, expectations and aspirations of their family as their reasons for doing a postgraduate degree.

I always take interest in studying and my dad's wish for me is to do at least masters and of course I want higher education. (Female, DGS)

It's my parents' advice that this degree can be helpful when you are in practical life. (Male, DM)

My parents forced me up but now I think I am lucky to be a part of this degree. (Female, DM)

It was my father's advice to do MBE. (Female, DBE)

I do the business and because of my parents wish. (Male, DBE)

Because my parents want me to do master and after this PhD. (Male, DBE)

These responses may reflect that parents were a guiding hand for the choice of the degree.

The results in the previous sections showed that the major reasons for doing a postgraduate degree as mentioned by students were, access to a better job, personal interest in the subject and enhancement of their knowledge and learning.

In order to explore the future plans of the students, a set of structured response questions about the importance of various activities were asked. These questions required students to indicate the importance of five activities on a five point Likert scale (Not important = 1 to Very important = 5).The following section presents the results of the analysis of the students' responses to these questions.

8.2   Importance of Various Activities after the Completion of Current Degree

In a set of structured response questions students were asked to indicate the importance of various activities (job, further study, marriage) after the completion of their current degree. Descriptive statistics in Table 8.1 show that the mean score (M =4.13) for the importance of doing a job was well above the scale midpoint, thereby indicating that the students considered it important to work. The mean scores for the importance of both studying further at the same institution ($M = 2.78$) and further study at another institution in Pakistan ($M = 2.92$) were below the scale midpoints, thereby indicating that students

considered it less important to study further in Pakistan. However they considered it more important to study abroad (*M* = 3.30). The mean score (*M* = 2.86) on the importance of getting married was also below the scale midpoint, suggesting that that these postgraduate students did not consider it important.

Table 8.2

Descriptive Results for the Importance of Various Activities after the Completion of Current Degree

How important is it for you to	*M*	MID	*SD*	MIN	MAX	Skewness	Kurtosis
Do a Job	4.13	5	1.23	1	5	-1.41	0.91
Study further at this institution	2.78	3	1.47	1	5	.21	-1.33
Study further at another institution in Pakistan	2.92	3	1.42	1	5	-.01	-1.30
Study further abroad	3.30	4	1.56	1	5	-.35	-1.41
Get married and have family	2.86	3	1.51	1	5	.44	-1.1
Other please specify							

The above results can be seen as a reflection of the aspirations of the participating students, who were from low/ middle income families (Chapter 3, Section 3.2.7). The above results are also in line with students' responses in the previous section (8.1) saying that they were doing their current degree to get a job in future. These results indicate that the students decided to do their current degree to get a better job and doing a job was the most important activity that they wanted to pursue after completing their current degree. These results show that students wanted to secure their future in financial terms.

The researcher also aimed to study the effect of independent variables (gender, department and shift of study) on all levels of the ordered responses of the students about the importance of various activities after the completion of their current degree. For this purpose, an ordinal regression model (see for example, Fox, 2008, pp. 363-368) was initially considered to be appropriate to achieve valid results. However, before applying the ordinal regression model, the data was examined for its suitability for ordinal regression. Therefore the assumption of parallel lines (the relationships between the independent variables and the logits are the same for all the logits and the results are a set of parallel lines or planes—one for each category of the outcome variable) was tested. The current data did not fulfil this assumption and indicated that a population odds Logit Model was not appropriate, therefore, a multinomial logistic regression model (also known as the Polytomous Logit Model) was used for the current data. The multinomial logistic regression model is generally effective where the dependent variable is composed of a polytomous category having multiple choices (Hosmer & Lemeshow, 2000). This model contained three independent variables (gender, department and shift of study). The model is expressed below:

$$P(Y_i = j) = \frac{\exp\left(\gamma_{0j} + \gamma_{1j} X_{1i} + \gamma_{2j} X_{2i} + \cdots\right)}{1 + \sum_{j=1}^{4} \exp\left(\gamma_{0j} + \gamma_{1j} X_{1i} + \gamma_{2j} X_{2i} + \cdots\right)}$$

Where j =1…4

$$P(Y_i = 5) = 1 - \sum_{j=1}^{4} P(Y_i = j)$$

Where X_1, X_2, X_3 ...are the explanatory variables, X_1 is a dummy variable for gender,

$X_2 ... X_5$, are dummy variables for departments and X_6 is a dummy variable for shift of

study (Fox, 2008, p. 356). The multinomial logistic regression (see Table 8.3) revealed a

significant model, indicating discrimination among groups, for four future activities (Do

a job; Study further at this institution; Study further at another institution in Pakistan;

Study further abroad) whereas the final model was not significant ($p = .155$) for one

future activity, namely, 'get married and have family'. The deviance goodness of fit test

was applied and all p values for this test were not significant, indicating that the model

was adequate. The details of the final model fit for five future activities are given in

below (Table 8.3).

Table 8.3

Results of the Multinomial Logistic Regression in the Final Model for Five Future
Activities.

Final Model (How important is it for you to:)	-2 log Likelihood	Chi-square ($df = 24$)	p values	Pseudo R-Square (Nagelkerk)	Deviance GOF ($df=48$) p values
do a job	173.20	37.45	.039	.112	.942
study further at this institution	222.56	64.60	.000	.182	.184
study further at another institution in Pakistan	230.07	57.97	.000	.166	.05
study further abroad	215.89	67.19	.000	.189	.09
get married and have family	223.80	30.96	.155	.093	.326

The Likelihood Ratio tests (Table 8.4) indicated a statistically significant effect

of department of study (independent variable) on the importance of all future activities

except getting married and having a family, whereas both gender and shift of study were

not statistically significant. The details of the significant results of the likelihood ratio

tests for the effect of department of study on the importance of various future activities

are shown in Table 8.4.

Table 8.4

Results of Likelihood Ratio test for Significant Effect of Department of Study on the

Importance of Various Future Activities at .05 level

Following your current program of study how important is it for you to:	-2 log Likelihood of Reduced model	Chi-square	*df*	Sig
do a job	202.89	29.69	16	.02
study further at this institution	279.61	57.05	16	.000
study further at another institution in Pakistan	277.66	47.59	16	.000
study further abroad	263.99	48.10	16	.000
get married and have family	248.29	24.49	16	.08

These results indicated that the department of study significantly affects the

importance of various future activities (Doing a job, study further at this institution,

study further at another institution in Pakistan, study further abroad) but did not have a

significant effect on the importance of getting married and having family. On the other

hand, gender and shift of study did not significantly affect the importance of future

activities. There being no significant effect of gender is quite interesting, suggesting that

at the postgraduate level males and females were foreseeing and planning for their future

in a similar manner. Previous research by Malik and Courtney (2011) in Pakistan

showed that the participation in higher education was associate with women's

empowerment due to an increased awareness of their legal rights, ability to claim their rights . Their (Malik & Courtney, 2011) study also showed women saw their higher education as a means to increased economic independence. Therefore no significant gender differences in the future plans of the postgraduate students at the university of the Punjab may indicate that participation in higher education enables women to think and plan about their future in a manner similar to males in Pakistan.

Moreover, the significant effect of department of study on plans for doing a job and further study suggests that the future plans of the students vary across departments depending upon their field of study. Additionally, perceived importance of getting married and having a family did not significantly vary across departments.

The coefficients for the multinomial logistic regression are given in Appendix I. The multinomial logistic regression model estimated the effect of the independent variable (department of study) on the probability of choosing a type of alternative response category (1=not important to 5 = very important). The fitted model was used to generate Figures 8.1 to 8.5 showing the relationship between department of study and estimated probabilities of the responses to a set of questions.
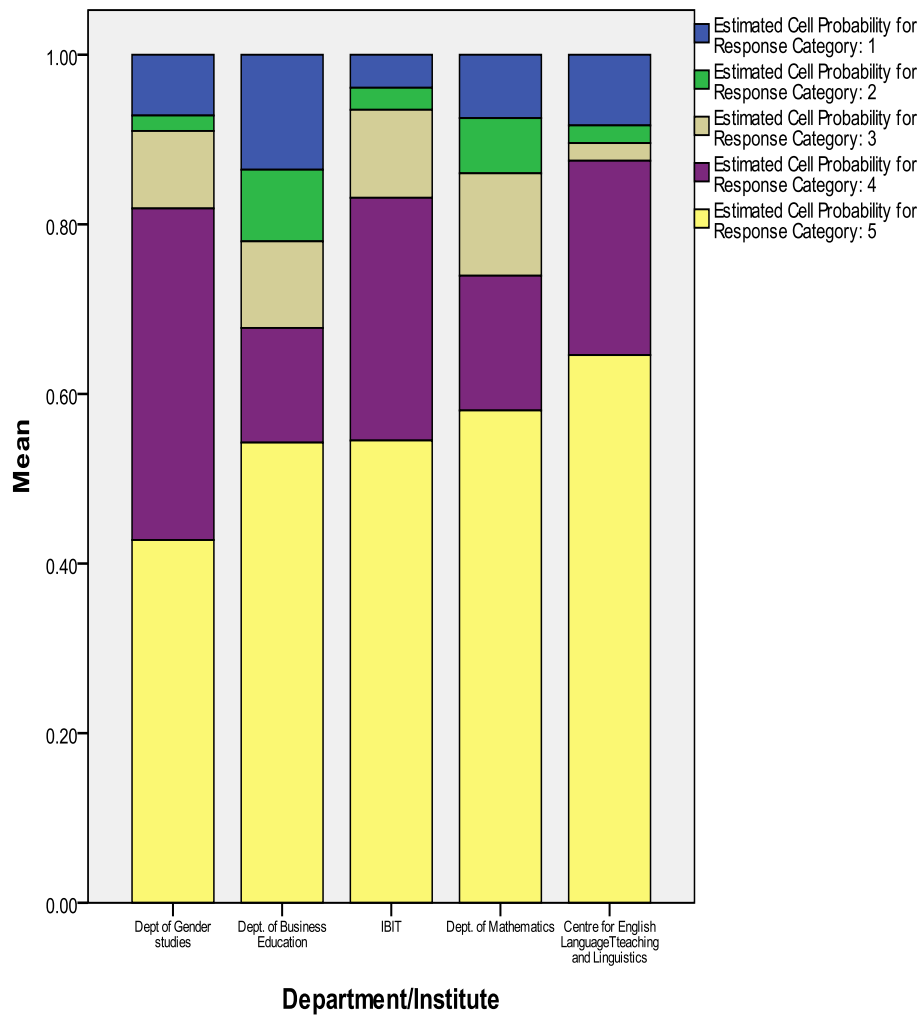
Figure 8.1. Estimated probabilities of responses to the question relating to the importance of doing a job (1 is 'not important'; 5 is 'very important') based on multinomial logistic model

As shown in Figure 8.1, in almost all departments a majority of the participants considered it important (Response category 4=important and category 5 = very important) to do a job after completing their current degree. This proportion was highest (over 80 %) in the Centre of English Language Teaching and Linguistics (CELTL),

Department of Gender Studies (DGS) and IBIT. It is interesting to note that DGS and CELTL had a majority of females with only five males in DGS and only three males in CELTL. These results indicate that the females who joined these degrees have very strong intentions to work in their chosen profession. The graduates of DGS have diverse career opportunities such as, teaching and research positions in universities and colleges, positions in public and private departments/institutions having programs in women's development and child protection, lead trainers in developmental and community work, research, planning, supervision, monitoring and evaluation, work with advocacy groups, human rights' organizations, environmental and consumer groups, health care, and social sciences, and positions in a wide variety of settings including policy and lobbying organizations, research centres, trade and international associations (Institute of Social and Cultural Studies, 2008). The career opportunities available to the graduates of CELTL include English language teaching positions in schools, colleges and universities. The IBIT had more males (65.8%), and the graduates may have jobs in a managerial capacity in reputed business organizations, information technology firms, banks and local as well as multinational companies (Institute of Education and Research, 2008).

Similarly, over 60% of the respondents in the Department of Business Education considered a job to be an important future activity. This department had an equal percentage of males (48.4%) and females. The career opportunities available to the graduates of DBE included teaching positions in schools, colleges and universities, leadership positions in higher secondary schools and Colleges of Education, research

officers, and positions in business firms and industries (Institute of Education and Research, 2008).

Over 60 % of the respondents in the Department of Mathematics (having more females at 68.3%) also considered a job to be an important future activity. The career opportunities available to the graduates include teaching positions in schools, colleges and universities, managerial positions in banks and accountancy firms (Department of Mathematics, 2008). Apart from these job opportunities, students with a degree in mathematics can also work as private tutors and can teach secondary and higher secondary school students at their homes and in private tuition centres.

These results suggest that although there is a variation in the percentage of respondents across different departments, overall doing a job was considered important by most of the students from all departments of study. These results are in line with the results from Section 8.1 above, indicating that doing a job was not only an important reason for doing their current degree it was also the most important activity that the postgraduate students wanted to pursue after their current degree across all departments of study. These results may be seen as the aspirations of this group of students who belonged to low and middle class families with an average monthly income of below 83000 rupees (1000 AUD) (section 3.2.7.1).These students wanted to improve their ability to support their families and improve their SES by getting higher education and doing a job.
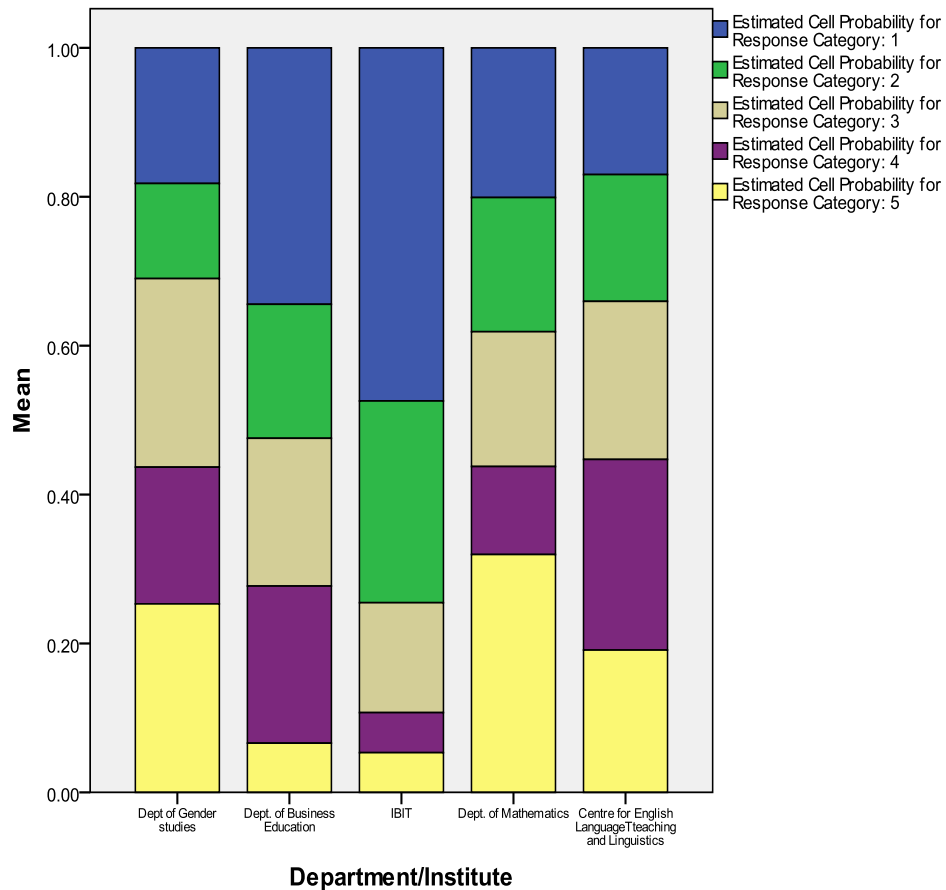
Figure 8.2. Estimated probabilities of responses to the question relating to the importance of studying further at this institution (1 is 'not important'; 5 is 'very important') based on a multinomial logistic model

Figure 8.2 shows that in almost all departments, a small percentage of respondents considered it important to study further at their current institution. Over 40% of the respondents at DGS and CELTL and DM considered it important to study further at their current institution.
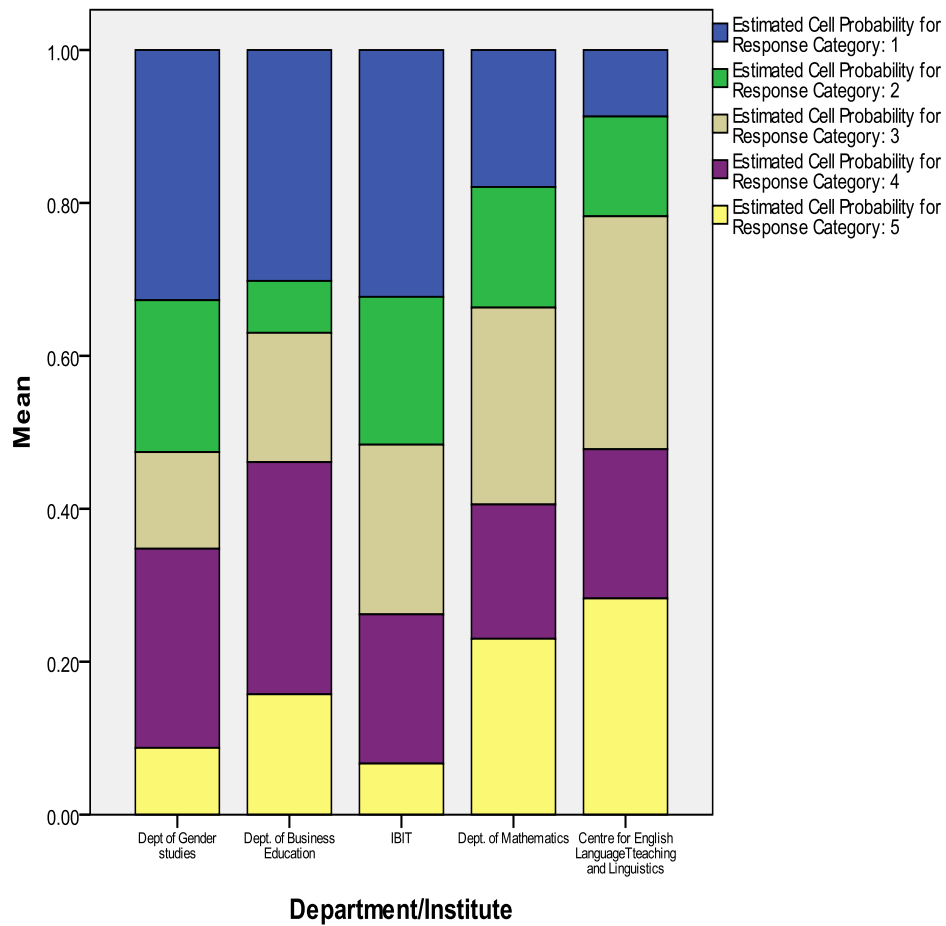
Figure 8.3. Estimated probabilities of responses to the question relating to the importance of studying further at another institution (1 is 'not important'; 5 is 'very important') based on multinomial logistic model

Similarly (see Figure 8.3), the percentage of students who considered it important to undertake further study at another institution in Pakistan was also low (less than 40 %) in the DGS and DM, whereas comparatively more students (slightly over 40%) in DBE and CELTL wanted to study at another institution in Pakistan. These results indicated that most of the students were not planning to study further. This may

possibly be due to the reason that most of these students wanted to do a job after their

current degree.

In contrast to these results the majority of the students in IBIT (over 70%),

CELTL (over 60%) and DBE (50%) wanted to study abroad. The percentage of such

students was lowest (almost 30 %) in the DGS (Figure 8.4).
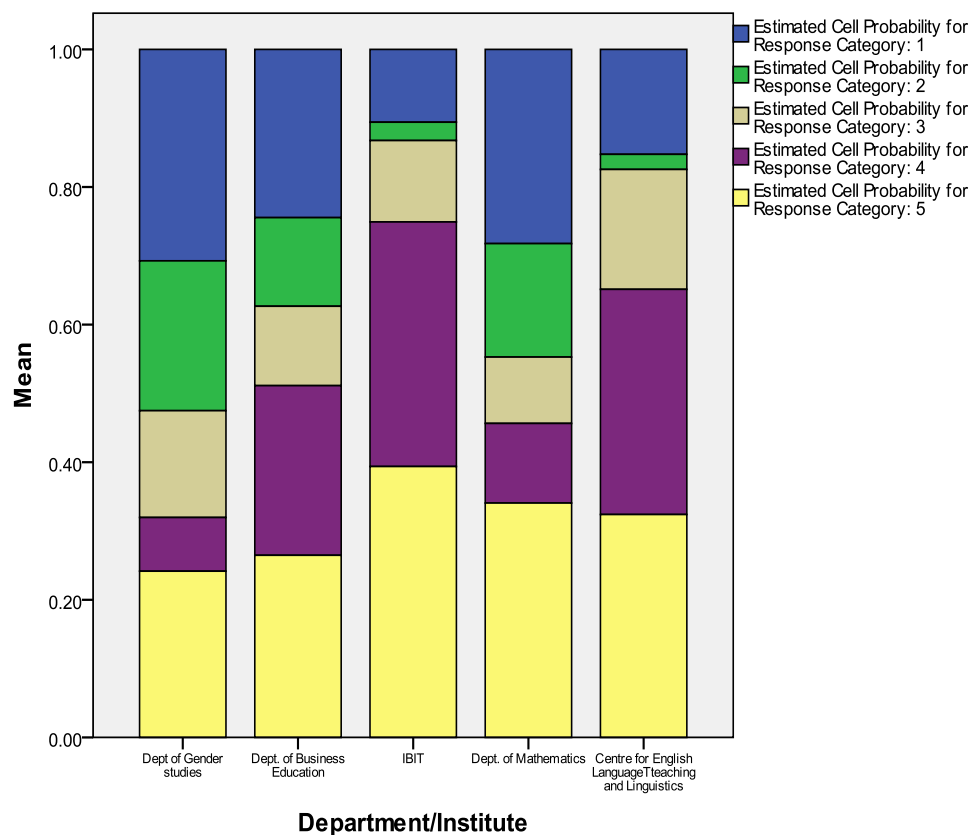
Figure 8.4. Estimated probabilities of responses to the question relating to the

importance of studying further abroad (1 is 'not important'; 5 is 'very important') based

on multinomial logistic model

The more marked preference for study abroad among the students enrolled in IBIT, CELTL and DBE may have been due to the greater competition in the job market for the graduates of these departments. This may also reflect that due to the high rate of unemployment in Pakistan these students knew that there is no pot of gold at the end of their degree rainbow and that further study may improve their future prospects.
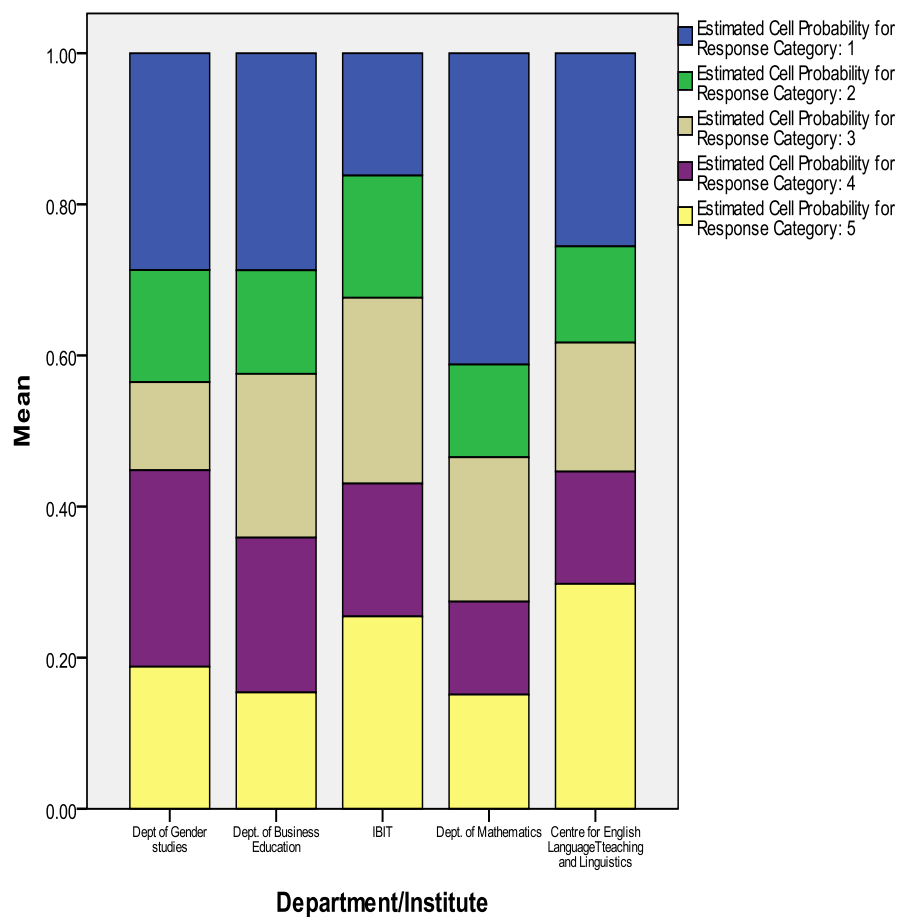
Figure 8.5. Estimated probabilities of responses to the question relating to the importance of getting married and having family (1 is 'not important'; 5 is 'very important') based on multinomial logistic model

Just over 40 % of the respondents in DGS, CELTL and IBIT considered that getting married and having a family was important for them. Both DGS and CELTL had a majority of females (with only three males in CELTL and five males in DGS), whereas, IBIT had more males (65.8%). These results further support the results of the multinomial logistic regression indicating no significant effect of gender on the perceived importance of future activities. Regardless of gender, fewer students in these departments considered marriage as an important future activity. These results are quite unexpected in the social context of Pakistan, where the average age of females at marriage is 22.1 years (Government of Pakistan, 1999-2000). However, Gangadharan and Maitra (2000) have shown in their study that education has significantly affected the age of marriage in Pakistan. Their study showed that an increase in the number of years of education significantly increased the age of the females at marriage. The reduced importance of marriage indicated that postgraduate students were perhaps more career oriented and preferred to engage in work after completing their degree program.

Taken together, these results from the last two sections (8.1& 8.2) showed that for postgraduate students getting a job was the most important reason for doing their current degree, as well as the most important activity after completing that degree. This preference for having a job may be seen as a desire for better socio-economic status as is discussed further in the following sections concerned with types of jobs preferred by students (8.3) and the reasons for their preference (8.4) for a particular type of job.

8.3 Preferred Career/Job after Getting Current Degree

A majority (90.20%) of the respondents hoped to get a job as a result of their current degree. In order to explore their preferred job/career and the reasons for choosing that job/career, two open-ended questions were asked. The following sections present the results of the students' responses to these questions.

In response to the question about their preferred job/career, 47 per cent (see Table 8.5) of the respondents reported teaching as their preferred job after their current degree. It is interesting to note that all respondents (n=48, all females) from CELTL preferred teaching. Similarly most of the students (89 out of 107, and 61 of these were females) from the Department of Mathematics wanted to be teachers. There appears to be a match between the higher percentage of females in CELTL and DM and the preferred choice of career. More females preferred to have teaching as a career and the degrees from these two departments provided maximum opportunities for teaching. The graduates of CELTL generally get jobs in private English medium schools whereas the graduates of Mathematics department can get jobs in government as well as private institutions and even when they cannot find a job they still have ample opportunity for working as private educational tutors and teaching students at their homes and private tuition centres. As discussed in the next section (8.4), preference for teaching jobs is justified in the Pakistani context, where there are strong socio-cultural expectations of balancing between family and work, particularly for women.

Both DBE and IBIT offer the choice of specialization in specific areas of study such as marketing, accounting and finance. Over sixteen per cent of the respondents from these two departments wanted to do jobs related to their areas of specialization such as becoming a marketing manager or a finance manager.

> I would prefer a career related to finance, such as finance manager in a bank or multinational company. (IBIT, Male)

> I want to be a market specialist/sales officer. (IBIT, Male)

However 10.40% of the respondents, all from the Department of Gender Studies preferred to do a job in nongovernment organizations. Their preference is justified, because in Pakistan more NGOs than government organizations are working for gender issues and human rights. Sixteen per cent of the respondents (all from IBIT, DBE and DM) wanted to have jobs in banks. The possible reason for this choice may be the relevance of their degrees to banking jobs. This may be due to the fact that to have a job in a bank one must have a background in mathematics, finance or accounting and the graduates from the IBIT, DM and DBE had the relevant knowledge and skills required for banking jobs.

Table 8.5

Students' preferred career /job after completion of current degree (total n= 346)

Responses/ Themes	DGS (*n=61*)	IBIT (*n=72*)	DM (*n=107*)	DBE (*n=58*)	CELTL (*n=48*)	Count	Percent of Respondents
Teaching/Lecturer ship	17	2	89	18	48	164	47.39
Job in a bank		22	18	17		57	16.47
Job in their respective area of specialisation (marketing/finance)		32		24		56	16.18
Job in a bank		22	18	17		57	16.47
Job in NGO	36					36	10.40
Management job		23				23	6.65
Any job with a good pay	6	1	7			14	4.05
Government job	6		12			18	5.20
No job			3	2		5	1.45
Total						373	107.80

       The above results showed that most of the responses echoed the words used in the quoted professions/ job opportunities in the prospectus of the respective departments and the students hoped/expected to get the jobs mentioned in the prospectuses, but because of the high rate of unemployment in Pakistan the real situation may be different when they actually finish their degree and search for jobs. Nevertheless, these students also had their own reasons for the choice of the above mentioned jobs/careers as discussed in the next section.

8.4 Reasons for Choosing a Career

Over 50 % of the respondents reported (Table 8.6) that they have a personal interest in that career/job and many students reported more than one reason when asked why they had chosen the specific career.

8.4.1 Personal interest.

More than half (50.67 %) of the respondents reported that they preferred a certain career due to their personal interest in that job/career as mentioned in the following responses.

> I like teaching and I have lot of interest in teaching as teaching in itself is learning. (Female, CELTL)

> I like this. I am getting this degree to fulfil my inner desire. It is my dream to become a lecturer. (Female, DM)

> I am interested in it. (Female, DM)

> I am interested in this job. (Male, DM)

> I have chosen this career because it clearly matches with my field of finance, so I want to excel in my own field and I find this very interesting. (Male, IBIT)

> I find really interesting to work with the dynamics of managerial and marketing. (Male, IBIT)

> These responses reflect that students' choice of profession was based on their personal interest and liking.

Table 8.6

Reasons for Choosing a Career (n=298)

Responses/Themes	DGS (*n=35*)	IBIT (*n=71*)	DM (*n=92*)	DBE (*n=55*)	CELTL (*n=45*)	Count	Percentage of Respondents
Personal Interest	8	36	50	34	26	151	50.67
Respectable Job/ good job for ladies	7	2	31	10	22	72	24.16
Relevance to degree	4	13			6	23	7.72
Salary/ Economic independence	4	8		7		19	6.38
Opportunities for future developments/better scope		12	4	2	1	19	6.38
To serve my parents/family/country			13	4		17	5.70
I can do something different for women	12					12	4.03
Total						313	105.03

8.4.2   Respectable and suitable job

Teaching as well as government jobs were considered to be very suitable and good for females by 24.16% of the respondents. They were considered suitable for many reasons such as respect, the suitability of working hours, and the ease of achieving a balance between work for the job and the family.

> It's easy for women to do this job and take care of their family simultaneously. I can manage it easily. (Female, CELTL)

> Because teaching is a respectable and convenient job. (Female, DM)

I feel my future is in government job. The honour of government job is more than private employees. (Female, DGS)

It is suitable you can give good time to your family also. Family is not totally ignored. (Female, CELTL)

It is most respectful for women and timing is appropriate for girls to teach and to do their duties homes. (Female, DM)

Teaching is very respectable job for females in Pakistan. (Female, CELTL)

These responses indicated that females preferred to have a career in which they could easily balance their job and family responsibilities. This preference is understandable in the context of the patriarchal values embedded in Pakistani society where women are mostly placed in reproductive roles as mothers and wives in their private lives at home, whereas men are seen as breadwinners. Within this value system women are generally not allowed to pursue a career after marriage (Khan, 2007). Therefore those who wanted to have a career were aware of these expectations and preferred to have a job where they would be able to strike a balance between the demands of their job and their family responsibilities.

8.4.3   Relevance to degree/area of specialisation

Relevance to the degree and area of specialization was another reason reported by (7.72 %) of the respondents. Students thought that their degree was most appropriate for doing the specific type of job that they had chosen. Students under this response category were from the IBIT (n=13), CELTL (n=6) and DGS (n=4).

It suits to my study program as I am doing MBAIT in finance. (Male, IBIT)

My current degree fulfils the needs and is appropriate for this job. (Female, CELTL)

I have chosen this career because it clearly matches with my field of finance. So I want to excel in my own field and I find this work an interesting one which matched with my personality. (Female, IBIT)

Because I am doing my specialization in finance and find interesting to work in a financial sector. (Male, IBIT)

8.4.5   Salary and financial independence.

A small percentage of respondents (6.38 %) considered their preferred job as a means of achieving economic independence.

I have chosen marketing as career because it is high paying and also jobs are available in this field. (Male, IBIT)

I want to be economically independent. (Female, DGS)

I can lead a happy and wealthy life. (Male, IBIT)

To earn money. (Male, DM)

I will get enough income which will be suitable for me and my family. (Female, DBE)

It is respectable and has reasonable salary. (Male, IBIT)

I can lead a happy and wealthy life. (Male, IBIT)

This response category had more males (11 out of 19), perhaps due to the fact that males see their role as the breadwinners of the family and wanted to have a job that gives maximum financial benefits.

8.4.6 Opportunities for future development and better scope

A small percentage of respondents see their preferred job as a means for future professional development. Their choice of a specific job was based on its future scope and opportunities for growth and progress.

Because there is a good chance of future career development and making good market. (Male, IBIT)

Because there is a very high value of business field and Marketing is one of them. (Female, DBE)

The career I will choose is due to the boom and the growth in the job position and in above sector there is good chance for growth. (Male, DBE)

It has scope in future. (Female, CELTL)

I have chosen because there are a lot of opportunities regarding this. (Male, DBE)

8.4.7   To serve my parents, family and country.

A small percentage (5.70%) of the respondents wanted to serve and support their family and country by their job thereby indicating their social concerns.

I want to support my father because I have no brother. (Female, IBIT)

I am interested in it and want to help my brother and sisters by teaching to earn money and help them. (Female, DM)

Because I want to do something for my parents. (Female, DM)

Because I want to do something for my parents and want to support them in a better way. (Female, DM)

I wish to serve my parents and country. (Male, DM)

I want to serve my country and humanity. (Male, DM)

Because I want to do something for my country. (Female, DM)

8.5   Summary

This chapter presented the results of the analysis of the data on future plans of the postgraduate students. The analysis was focused on answering the research question: What are the future plans of the students after the completion of their current degree? To answer this research question students' responses to three open-ended questions and one structured response question (with five sub questions) were analysed.

The students' responses revealed that they had decided to do their current degree because they wanted to get a better job, had a personal interest in the subject, and wanted to get a higher degree and more knowledge.

The results of the regression analysis of the structured response questions about the importance of various activities revealed that the views on the importance of the specified future activities was significantly affected /influenced by the department of study, while no significant effect of gender and shift of study was revealed. Overall, doing a job was considered important by most of the students in all departments but this proportion was the highest in the CELTL, DGS and IBIT. Studying further at their current institution as well as at another institution were considered less important by students in general, however a comparatively higher percentage of students from DGS and CELTL considered such study important. Interestingly, the highest percentage of the respondents from IBIT considered it important to study abroad. Getting married and having family was not considered to be important by students in all departments but the percentage of such students was highest in the department of Mathematics.

The majority of the students hoped to get a job as result of their current degree. Teaching was the preferred career/ job by most of the respondents from CELTL and DM, whereas respondents from the IBIT and DBE preferred a job related to their area of specialization. All respondents from the DGS preferred to do a job in a non-government organization (NGO). Almost half of the respondents preferred their chosen career because of their personal interest in that job. Teaching and government jobs were considered to be very suitable and respectable for females.

Chapter 9

Discussion, Conclusions, Implications and Recommendations

This study has been an exploratory investigation into the motivational beliefs, course experiences and future plans of postgraduate students at the University of the Punjab, Lahore, Pakistan. The previous chapters (4 to 8) presented the results of the quantitative (Descriptive, MANCOVA, Correlation and Regression) analysis as well as the qualitative (thematic) analysis of data. This chapter explores these results in the context of higher education in Pakistan in relation to both the extant theories and previous research findings. It is organised into four main sections focused on the motivational beliefs of the postgraduate students, the course experiences of these students, and the correlations between the motivational beliefs, course experiences and academic achievement of the students. Section 9.4 discusses the reasons given by participants for undertaking their current degree, as well as their future plans. This chapter also presents the conclusions drawn from this study by synthesising its key findings and results. Section 9.5 briefly reviews the main findings along with some implications of these findings for the improvement of teaching and learning at the postgraduate level in Pakistan. The last section (9.6) outlines those issues that may be explored in future studies and accounts for the limitations of the findings of the present study.

9.1 Motivational Beliefs

This section presents a discussion of the motivational beliefs of the postgraduate

students

9.1.1 Motivational beliefs of the postgraduate students.

The results of the current study served to draw attention to the different cultural context

of Pakistan as well as the differences in the teaching and learning environment at the

postgraduate level at the University of the Punjab. Most previous research has confirmed

the external validity and factor structure of the MSLQ with different student populations

and cultural groups (Crede & Phillips, 2011; Duncan & McKeachie, 2005; Rotgans &

Schmidt, 2009). For example, Rotgans and Schmidt (2008) in   a cross-cultural

validation of the MSLQ in the Singaporean context with Chinese, Malaysian and Indian

students newly graduated from secondary school and about to enrol in diploma programs

at a local polytechnic, confirmed the factor structure of the MSLQ scales. Using a

confirmatory factor analysis they compared their results with those obtained by Pintrich

et al. (1993) in the US. The model fit and reliabilities were very similar to the original

validation study conducted by Pintrich et al. (1993). According to Rotgans and Schmidt

(2008),

> These similarities between the Singaporean and U.S. versions of MSLQ
> suggested that there are no cultural influences that would make the
> instrument less valid in the Singaporean context.   In other words, the
> MSLQ was a valid and reliable instrument capable of measuring

motivational beliefs and self-regulatory strategies in the multicultural learning context of Singapore (pp. 254-255).

Similarly, a Turkish adaptation study (Karadeniz, et al., 2008) of the MSLQ for 12-18 year old students where the scale was translated into Turkish, used a confirmatory factor analysis to identify the underlying factor structure of the motivation scales of MSLQ. However, in this study six items (three from self-efficacy and three others from extrinsic goal orientation, task value and control belief factors) had a notable relation with the error covariances of other items. According to Karadeniz, et al. (2008), the possible explanation for this was that when the scales were translated into Turkish some of the items conveyed similar and overlapping meanings. Therefore these items were removed from the analysis in order to obtain a more coherent model.

Contrary to the results of the above mentioned studies, the current study showed that the factor structure of the six motivation scales of the MSLQ was significantly modified with the current sample of postgraduate students in Pakistan (see Chapter 4, Section 4.1). The results of the exploratory factor analysis revealed that four items (M2, M9, M18, M25) failed to show salient loadings and four items (M20, M21, M29, M31) cross-loaded on more than one scale. It was found that the construct of the *control of learning* beliefs was found to be not meaningful for the current sample of postgraduate students (see Section 4.1) as the items of this scale failed to show salient loading on any factor. This scale aimed to measure the internal aspects of control and concerned the belief that outcomes are contingent on one's own efforts, in contrast to external factors such as the teacher (Pintrich & Schrauben, 1992). Previous research with Asian students

has indicated their strong tendency to attribute success and failure to effort, which may

be due to an emphasis on hard work and effort in these cultures (Salili, 1996). In

Pakistan, although there is great parental and social emphasis on the value of hard work

in relation to educational achievement, learning and instruction is generally controlled

and driven by teachers. Therefore one possible explanation for the non-functionality of

the *control of learning* scale is that postgraduate students in Pakistan considered other

factors such as teachers (external sources), as mentioned by Connell (1985), to be

responsible for the outcomes in the course rather than their own efforts (Internal factors).

These findings sit in stark contrast to the previous research with Asian students (Salili,

1996).

Moreover, the postgraduate students in the current study perceived their *self-efficacy* only in terms of learning. The eight items on the self-efficacy for learning and

performance scale of the MSLQ were concerned with the judgements about one's ability

to accomplish a task as well as confidence in one's skills to perform that task. This study

showed that the postgraduate students had clear perceptions of their ability to learn and

understand the basic concepts taught (M12) as well as the complex materials presented

in the course (M15, M16), suggesting that these students had clear perceptions of their

self-efficacy for learning. Nevertheless, they appeared to be confused about their

judgements of their ability to perform as indicated by the three items measuring self-

efficacy for performance (M20, M 21, M 31), which cross loaded on the test anxiety

factor. A review of the wording of these items indicated that all these items were

concerned with the performance in exams and assignments, suggesting that for these

students aspects of study such as grades, performing well on exams and assignments (*self-efficacy for performance*) were found to be related with test anxiety. These results may be interpreted in the context of a highly teacher-centred and teacher controlled teaching and learning environments, where students did not consider themselves to be able to make judgements of their ability to perform a task (self-efficacy for performance). For them, these judgements were related to exams and evaluation and should most probably be made by their teachers.

The current study showed that the construct of extrinsic goal orientation functioned well with Pakistani postgraduate students as all items on this scale loaded on the same factor and therefore the *extrinsic goal orientation* scale retained its original form as in the MSLQ, thereby indicating that students could easily understand and respond to items about grades, rewards, evaluation by others and competition. The high score on the extrinsic goal orientation scale (see Section 5.1) indicated that postgraduate students had high concern for receiving good grades. These results stand in support of the results of previous studies (Cheung, et al., 2001) and literature showing high *extrinsic goal orientation* among Asian international postgraduate students and can be explained by the collectivist culture of Pakistan. The postgraduate students had great concern for good grades and their overall performance in class because they thought that by getting good grades they could prove their abilities to other students, their families and friends. In the collectivist culture of Pakistan good grades are considered to be proof of their educational ability and achievement, providing them with a qualification enabling them to compete in the job market and therefore entitling them to become

members of the higher social status group. In other words, their grades and performance certificates were a means for better social acceptance and economic status and security. These concerns were also reflected in students' responses to open-ended questions as will be discussed in last section (9.4) of this chapter.

The present study revealed that the postgraduate students had strong *expectancy* beliefs as reflected by their *self-efficacy for learning* and had strong perceptions of their ability to accomplish a task and learn the course material. However, surprisingly, they were generally less test anxious about exams and assessment. The possible reason for low *test anxiety* among current these postgraduate students is that the evaluation system at the University was based on at least one home assignment (25% weighting) and two tests, a mid-semester test (35 %) and a final test (40 %). Data for this study were collected a few days before the final examination, therefore the low test anxiety score may have been the result of the 40% weighting of the final tests or, it may be considered as a reflection of the quality of assessment and evaluation. Since the individual lecturer is responsible for developing tests and conducting the examinations, another possible reason could be that after taking the mid-term test the students had developed the understanding of the evaluation style of the lecturer and were less anxious about what was to come.

9.1.2 Gender and motivational beliefs.

In line with the results of the previous research by Cheung and colleagues (2001) in a Hong Kong university where females were reported to be more extrinsically motivated,

the current study also showed that the females at the University of the Punjab were more extrinsically motivated than males. The possible reason for this high concern may be the fact that females wanted to get good grades to prove their ability to their parents and families. Another reason may be to compete in the job market in Pakistan, since getting a good job was one of the major reasons mentioned by participants for undertaking their current degree. Similarly the higher *test anxiety* among females in the current study supports the results of previous research with school-aged children (Pintrich & DeGroot, 1990), undergraduates (Cassady & Johnson, 2002; Chapell, et al., 2005) and graduates (master's and doctoral students) (Chapell, et al., 2005). However in a study of 4,000 undergraduates (2,544 female, 1,456 male) and 1,414 graduate students (1,056 female, 358 male), Chapell and colleagues (2005) showed that despite their higher *test anxiety*, female undergraduate students had significantly higher GPAs than male undergraduate students. This pattern of higher *test anxiety* and higher grades does not appear to be supported in the current study as no significant gender differences were found in the academic achievement of the postgraduate students. Hembree (1988) also reported higher *test anxiety* among females than males from primary school through to degree but no gender differences in GPA were noted.

In contrast to previous research (Pintrich & DeGroot, 1990) with school-aged children, this study showed no significant gender differences in the *task value* and *self-efficacy* beliefs. In the study by Pintrich and De Groot (1990) boys were found to have higher *self-efficacy* beliefs than girls in Maths and Science. Previous research has also linked these gender differences in *self-efficacy* beliefs to age and grade level and these

differences become more evident in the middle years of schooling (Wigfield, et al., 1996) due to adolescents' desire to comply with gender stereotypes in adolescence. The absence of significant gender differences in the *self-efficacy for learning* beliefs of postgraduate students in the current study (average age 22 years) may suggest that these postgraduate students were less influenced by gender stereotypes and both males and females had similar perceptions of their efficacy for learning and their ability to accomplish the learning tasks. These similar perceptions of self-efficacy are also supported by there being no gender differences in the current CGPA and achievement scores of the postgraduate students (Sections 3.2.4 & 3.2.5).

Previous research has also attributed gender differences in motivational beliefs to strong parental and socio-cultural influences (Meece, et al., 2006). Therefore the absence of gender differences in motivational beliefs for *task value* and *self-efficacy* in the current study need to be discussed with reference to the parents' educational qualifications and the socio cultural environment of Lahore, where the University of the Punjab is located. Lahore is a provincial capital of the Punjab and the second largest city in Pakistan. As mentioned earlier, although there is a wide gender gap and discrimination against women in Pakistan (UNICEF, 2006), the degree of this discrimination is comparatively less in big cities and urban areas (Khan, 2007). Moreover, as mentioned earlier in Chapter 3 (Section 3.2.7.3), the mean education level for fathers was 5.63, equivalent to Bachelors (14 years of education) or Masters degree (16 years of education), whereas the mean education level for mothers was 4.70, equivalent to FA/FSc. (12 years of education) or Bachelors degree (14 years of

education). The fact that there were no gender differences in *task value* and *self-efficacy* beliefs may suggest that parental, as well as social cultural influences in the current study were equally supportive of males and females getting a postgraduate degree and this influenced the students' motivational beliefs in a similar fashion.

The theoretical framework of the current study (Section 2.4) proposed that gender can influence the motivational beliefs of the students. The significant gender differences in the extrinsic goal orientation and test anxiety of the males and females as discussed above are in accord with this framework.

9.1.3   Motivational beliefs across department of study and shift of study.

In line with previous research (Anderman, 2004) the results of the current study suggested that motivational beliefs can be considered to be sensitive to features of the subject and class. Significant differences were revealed in relation to *task value beliefs* and the levels of *test anxiety* in various departments of study. Students' *task value* beliefs were more positive in the Department of Mathematics (DM) than in IBIT, thereby indicating that students in the Department Mathematics perceived their course to be more interesting, important and useful. This finding stands in contrast to previous research (Eccles, et al., 1983; Eccles, et al., 1984; Wigfield, 1994; Wigfield & Eccles, 1992) at the elementary and secondary school level where students' task value was found to be less positive and adaptive in Mathematics than in English classrooms.

In the current study the Department of Mathematics (DM) had the highest percentage of females (63.8%), whereas IBIT (Institute of Business and Information

Technology) had more males (65.8 %), yet the results of MANCOVA (Section 5.2) did not reveal any interaction effect of gender and department. However the greater interest and the more positive perceptions of usefulness of the course (task value beliefs) among students of the DM are supported and explained by their responses to the question about why they were doing their current degree (Section 8.1, Table 8.1). More students in DM (n = 33, 33%) than in the IBIT (n=14, 17%) mentioned personal interest as a reason, and similarly more students in the DM (n = 43, 43%) than in the IBIT (n = 22, 27%) were doing their current degree to get a job. Therefore it may be said that the students in the DM had positive task value beliefs because of their personal interest in the course and they considered it useful as it was likely to help them to get a job in the future. These results are in line with the theoretical framework of this study (Section 2.5) proposing that the department of study and future plans of the student influence their task value beliefs.

Similarly, *Test anxiety* was found to be significantly higher in the Department of Business Education as compared to the Department of Mathematics. Although there was no significant difference in the admission scores of the students in these two departments, (see Section 3.2.3.3) higher test anxiety among the students of DBE may be due to differences in the nature of the courses as reported by previous research (Duncan & McKeachie, 2005). These results are also in accord with the theoretical framework of this study (Section 2.5) proposing that the motivational beliefs of the students are influenced by the different contexts of learning in different disciplines of study.

This study added to the existing body of knowledge by exploring the differences in the motivational beliefs of the students enrolled in morning and afternoon shifts of study. This aspect of the investigation can be considered new as no previous research has examined this aspect of the learning context .The significant differences in the entry characteristics (admission scores and age) of the students in the morning and afternoon shifts of study (Sections 3.2.2 and 3.2.3.3) indicated that slightly older students were enrolled in the afternoon shift, which had relaxed age restrictions on admission to facilitate in-service and mature applicants. Similarly, more capable students were admitted to the morning shifts as compared to the afternoon shifts of study, as the afternoon shifts have comparatively lower admission criteria since the afternoon shifts were introduced into the university with the intention of catering for those students who had failed to be admitted into the morning shifts. The students have to pay comparative higher fees in the afternoon shifts and they are not provided with accommodation in on campus hostels and halls of residence.

In the light of differences in the shift of study it was theorised (Section 2.5) that there would be significant differences in the motivational beliefs of the students enrolled in the different shifts. The absence of significant differences for *extrinsic goal orientation*, *task value* and *self- efficacy* for learning beliefs across morning and afternoon shifts of study was quite surprising knowing that the students enrolled in these shifts were different in terms of their admission scores and age. However, these results are understandable in the light of the fact that there were no significant differences in the then-current academic achievement of the students enrolled in these shifts (Section

3.2.5). The theoretical framework of this study (Section 2.5) also proposed that the motivational beliefs of the students are related to their academic achievement, thus it may be inferred that the lack of differences in academic achievement may be due to there being no significant differences in the motivational beliefs in the two shifts of study.

However, it is interesting to note that students in the morning shift were found to be more test anxious than the students enrolled in the afternoon shift, suggesting that the different entry characteristics may have influenced the anxiety level of the students.

9.2   Course Experiences

The following section presents a discussion of the course experiences of the postgraduate students.

9.2.1   The course experiences of the postgraduate students.

In most of the previous studies in the West (Kreber, 2003; Lawless & Richardson, 2002; Lizzio, et al., 2002; Ramsden, 1991; Sun & Richardson, 2012; Wilson, et al., 1997), and in Nigeria (Andrew, 2010), most of the CEQ scales/factors (except some minor variations and concerns) were found to be non-overlapping and they generally retained their original structure, However in these studies and that of Law and Meyer (2011), there were also "reports of items loading on an unintended factor, cross loading on more than one factors, or failing to load on any factor" (Law and Meyer, (2011, p. 61). In a study of approaches to studying and perceptions of learning environment among

Pakistani university students enrolled in honours degrees and Master's degrees, Ullah, Richardson and Hafeez (2011) reported that only four (good teaching, generic skills, appropriate assessment and appropriate workload) of the CEQ constructs could be identified in the students' responses. Whereas, two constructs (clear goals and standards and emphasis on independence) were subsumed with other constructs/scales.

In line with the results of previous studies, this study with the current sample of postgraduate students in Pakistan showed that the CEQ scales functioned differently with Pakistani postgraduate students with items loading on an unintended factor, cross loading on more than one factor, and failing to load on any factor.

For example, the *appropriate assessment* scale failed to load on any factor. This result stands in line with results of the previous studies in Western contexts (Richardson, 1994; Wilson, et al., 1997) and in other contexts such as Nigeria (Andrew, 2010), where concern has been expressed about the non-loading and cross-loading of the items of the *appropriate assessment* scale. The composition of the *appropriate assessment* scale was found to be not very robust in the validation study of the CEQ in the British higher education context, with the alpha value being the lowest for the appropriate assessment scale (0.47) (Richardson, 1994). One item of the assessment scale also loaded on a different scale when used with Nigerian university students (Andrew, 2010). Similarly, in a recent study by Law and Meyer (2011) the alpha value was only marginally acceptable for *appropriate assessment* scale ($\alpha = .60$).

The non-loading of the items of the *appropriate assessment scale* stands in contrast to previous research (Ullah, et al., 2011) in two Pakistani universities where the construct of appropriate assessment functioned well with Honours and Master's degree students. This may possibly be due to the fact that the evaluation system at postgraduate level at the University of the Punjab is based on assignments, mid-semester examinations, and final examinations of the course, whereas the wording of these items was focused on testing involving the recollection of factual knowledge for assessment. Therefore, students were unable to fully grasp the meaning of these items.

This study showed that two items (L7: Staff put a lot of time into commenting on students' work & L19: Teaching staff of this course normally give helpful feedback on how you are going) of the *good teaching* scale cross-loaded on other factors. These items were concerned with the feedback by the teacher. Previous research by Broomfield and Bligh (1998) with 180 medical students in the UK and by Kreber (2003) with 1080 undergraduate science students in Canada, has also shown that the good teaching scale split into two factors. The results of the current study draw attention to the possible problems with the good teaching scale in other studies. According to Richardson (2005), "there is a consistent tendency for a few items on the *good teaching* scale to load on other factors" (p.396). Apart from the exclusion of two items belonging to the original good teaching scale, two items (about the quality and relevance of the course materials) from the *learning resources* scale, and one item from the *learning community* scale loaded on the *good teaching* scale in the current study. This may have been due to the highly teacher-centred and teacher controlled system of instruction in which teachers are

generally expected to provide all of the instructional material in the form of lecture notes and copies of reading materials from books. It is likely that in the current study the relevance and quality of the course materials were considered by the students as being a measure of the quality of teaching (good teaching). These results have highlighted the influence of different teaching and learning contexts in the current study. The *learning community* scale functioned very well with the current sample. A possible explanation for this may be that the Pakistani postgraduate students have a collectivist background and were socialized through values that emphasise working together interdependently rather than working independently (Rothstein-Fisch, 2008).

This study has made a significant contribution in providing support for the findings of previous studies (Ramsden, 1991; Richardson, 1994; Richardson, et al., 2007; Sun & Richardson, 2012; Trigwell & Prosser, 1991) by reporting that the item scores on the CEQ scales can be aggregated to yield a single global score of teaching quality. Although the original CEQ scales functioned differently with the current sample of postgraduate students and factor analysis of the scores on the original CEQ scales resulted in three factors (*good teaching, learning community and resources* and *appropriate workload)*, these new factors represented a single higher order factor when a principal component analysis was performed on the scores on these factors. Therefore in line with previous studies (Ramsden, 1991; Richardson, 2003, 2005; Trigwell & Prosser, 1991) the current study confirms that the higher order structure of CEQ can be conceptualised as comprising one factor of academic quality or teaching quality and

supports the construct validity of the CEQ as a measure of perceived academic quality (Richardson, 2003).

This study has provided insight into the course experiences of the postgraduate students and shown that these students were generally satisfied with their course experiences at the University. These results are similar to those obtained from previous research concerning the course experiences of undergraduates (Diseth, 2007), who were also moderately satisfied with their course experience and rated *appropriate workload* the lowest. These results may suggest that Pakistani postgraduate students' perceptions of their course experiences are quite similar to those of western undergraduate students, particularly where there is a heavy reliance on coursework in both cases. However, their strong sense of belonging with the learning community also pointed towards the important role played by the collectivist cultural beliefs of the students in Pakistan.

9.2.2   Gender and course experiences.

This study made a significant contribution to the understanding of the gender differences in the course experiences and showed that the females scored significantly higher than males on the *good teaching* scale, indicating that females were more satisfied with the quality of the teaching they experienced. These results support the findings of the research by Richardson, Slater and Wilson (2007), where females tended to produce higher scores than males on almost all scales measuring aspects of student learning, and a study at the University of Western Australia by Santhanam and Hicks (2002), where female student ratings were higher than male student ratings on six global items

evaluating teaching and the course/ unit. However the results of the current study sit in contrast to the findings of a study by Grebennikov and Skaines (2009) where no significant differences across gender were found for the *good teaching* scale. This present study revealed no gender differences in the perceptions of *appropriate workload* and *learning community and resources* which is similar to the findings of the study by Richardson (2006), where gender was found to be unrelated to the students' perceptions on almost all scales.

9.2.3   Course experiences across departments of study.

The present study revealed significant differences among various departments of study on all course experiences, highlighting the importance of the disciplinary differences and thereby supporting the findings of previous research (Becher, 1994; Fraenkel & Wallen, 2000; Johnson & Christensen, 2008; Neumann, 2001; Neumann & Becher, 2002; Patrick, et al., 2008; Santhanam & Hicks, 2002).

Previous research by Santhanam and Hicks (2002) at the University of Western Australia (UWA) used data from the Student Perceptions of Teaching (SPOT) questionnaire collected over three years 1996, 1997, 1998. Data were gathered and analysed on six generic global items related to the 'evaluation of the academic's teaching' and the 'evaluation of a unit or course'. Their study showed that students in different disciplines tended to view their lecturers and units/courses differently. Students in science and mathematics were more positive about the teaching they received than were the students in arts/humanities/social sciences. In accord with Santhanam and

Hick's (2002) study, the current study showed that postgraduate students in different disciplines had different levels of satisfaction with regard to the quality of teaching (*good teaching*), and the *learning community and resources* available to them. Students in the Department of Mathematics (Faculty of Science) were more satisfied with the quality of teaching than the students in the Centre for English Language Teaching and Linguistics (Faculty of Education). Similarly, students in the Department of Mathematics were more satisfied with their *learning community and resources* than the students in the IBIT (Faculty of Economics and Management Sciences).

Previous research has attributed these differences in students' perceptions of teaching to differences in the nature of the course content (Patrick, et al., 2008; Santhanam & Hicks, 2002). As described in Chapter One (Section 1.1.3.1) the sampled departments in the current study offered different postgraduate degrees. The content of the courses for a postgraduate degree in Mathematics was entirely different from the content of the courses at the CELTL and IBIT. A brief review of the specific courses in which the questionnaire of the current study was administered showed that the content of the course titled: 'Partial Differential Equation' at the Department of Mathematics was highly objective and logical in nature, requiring the application of principles of differentiation and involving complex mathematical calculations. In contrast, the course titled: 'Research Methods in Education' was comparatively descriptive in nature, requiring knowledge and understanding of the principles of educational research and involving comparatively less practical application of these principles. Therefore in the

current study the more positive perceptions of teaching in the Department of Mathematics may be due to the above-mentioned differences in the course content.

Previous research has also attributed the differences in participating students' perceptions to the varying academic cultures and staff-student ratios (Ramsden, 1991; Richardson, 1994). Although the current study did not involve any direct observation of the department cultures and learning environments, the greater satisfaction with the learning community and resources among the students of Mathematics Department may possibly be due to the use of appropriate methods of teaching that allowed for more student involvement, sharing of ideas and provision of a learning environment that was appreciated by students at the Department of Mathematics. However, the Department of Mathematics had a comparatively lower staff-student ratio (1:55 in morning shift, 1:67 in afternoon shift) than the Institute of Business and Information Technology (1:44 in morning shift and 1:45 in afternoon shift), and yet the students at the Department of Mathematics were more satisfied with their learning community and resources.

These differences in the students' experiences across departments highlighted the importance of taking into account students' perceptions of particular courses in order to improve their learning/course experiences (Knight & Trowler, 2000). In line with the theoretical framework (Section 2.4) this study showed the significant effect of department of study(content, academic culture and staff student ratios) on the course experiences of the students.

9.2.4 Course experiences across morning and afternoon shifts of study.

This study made a significant contribution to the already existing knowledge of course experiences in higher education by exploring the differences across the new dimension of shift of study. The different perceptions of the *learning community and resources* between students in the morning and afternoon shifts of study are quite interesting because the students in both shifts were being taught the same subjects by the same teachers. Differences in their experiences of *learning community and resources* are likely due to the differences in the students' entry characteristics such as their admission scores.

9.3 Correlations between Motivational Beliefs, Course Experiences and Academic Achievement

This study showed that the motivational beliefs and course experiences were linked in important ways to each other as well as with students' academic performance. The relationship between *self-efficacy* and *academic achievement* supports the findings of previous research by Watson, et al. (2004) where *academic achievement* was positively correlated with *self-efficacy* in a group of first year university students, and findings reported in a meta-analytic review of MSLQ by Crede and Phillips (2011), where moderate to strong correlations were noted between class grades and *self-efficacy* beliefs. *Self-efficacy* was also found to be a significant predictor of academic achievement among pre-service teachers from India and the United States by Bhattacharyya (2007). Therefore it would appear that *self-efficacy* for learning plays a

role in students' performance and by improving students' *self-efficacy* beliefs to some degree we might see improved academic performance.

Test anxiety was found to be negatively correlated with *academic achievement*. This result is consistent with the results of previous research with graduate and postgraduate students (DordiNejad, et al., 2011; Hancock, 2001) and implies that students' academic achievement/performance may be good because they were not very anxious or worried by the examinations they were about to take.

Despite high levels of satisfaction with the quality of teaching, no significant relationship existed between students' perceptions of *good teaching* and their *academic achievement*. This result stands in contrast to the findings of the previous research by Diseth (2007), where a strong relationship was reported between the course experience variables of *good teaching* and *examination grades,* and by Wilson et al.(1997), where students' CEQ scores were significantly correlated with their cumulative grade point averages and the correlation coefficients were highest for the *good teaching* scale and the *clear goals and standards* scale, and they were lowest for the *generic skills* and *appropriate assessment*. Similarly students' expected performance was found to be significantly related to the perceptions of *good teaching* at post-secondary level (Law & Meyer, 2011). This result may suggest that at the postgraduate level students' perceptions of the quality of teaching does not directly account for their academic achievement.

However, significant positive correlations between the course experience factor of *learning community and resources* and the achievement score suggests that students' perceptions that they belonged to a learning community in which they were encouraged to explore new ideas and to share knowledge and resources in an intellectually stimulating setting were associated with better academic performance. This significant relationship supports the findings of previous research (Smith & Bath, 2006) where learning community was the most consistently recurring significant predictor of generic graduate outcomes (discipline knowledge and skills, communication and problem solving) . These results add weight to the claim and observations of various authors (Freeman, et al., 2007) concerning the role and importance of the sense of belongingness for better academic performance and development of positive learning outcomes (Smith & Bath, 2006). The negative relationship between academic *workload* and academic achievement indicated that an excessive workload may lead to poorer academic performance. This result stands in contrast to the findings of the research by Diseth (2007), where strong positive relationships were reported between examination grades and the course experience variables of *appropriate workload*.

The significant positive correlations of *extrinsic goal orientation* and *task value* beliefs with the students' perceptions of *good teaching* and *learning community* as shown by this study is new and important to the field of student learning and motivation in general, and specifically in the Pakistani context, where students have high levels of *extrinsic goal orientation* and *task value*. This result suggested that strong *extrinsic goal orientation* and *task value* can play a facilitative role and may lead to positive course

experiences. It is also possible to suggest that positive course experiences may lead to higher levels of *extrinsic motivation, self-efficacy for learning* and *task value* beliefs.

Significant negative correlation of *test anxiety* with students' experiences of *learning community and resources* suggests that if the goal is to decrease or minimize *test anxiety*, students should be provided with more opportunities for interaction and sharing of ideas. Improving their sense of belonging will not only minimise *test anxiety* it may also lead to improved *academic achievement*. In addition, a significant negative correlation between *self-efficacy for learning* and *workload* highlights the importance of creating a curriculum in which the *workload* is perceived to be appropriate. For example, a reduction of *workload* may increase the level of *self-efficacy* and decrease the level of *test anxiety* and consequently lead to improved academic performance.

In contrast to previous research, this study revealed a negative correlation between SES and the academic achievement of the students and suggested that the students who reported their SES to be higher had a low achievement score. The previous research in the West has shown that students with high SES performed better than students with low or average SES (McConney & Perry, 2010; Sirin, 2005).One possible explanation for this negative correlation may be that students with higher SES were less concerned about academic achievement because they considered themselves to be already secure in terms of status and not to need to do well academically to be successful. Moreover this negative correlation may be more understandable in the context/light of the students' responses to the questions about their future plans and the

reasons for undertaking their current postgraduate degree as discussed in the following sections.

9.4   Future Plans

An objective of this study was to explore the reasons why postgraduate students wanted to do their current degree and what their plans were after they had completed this degree.

9.4.1   Reasons for undertaking degree.

The students' reasons for doing their current degree need to be discussed in the context of the socioeconomic situation in Pakistan, where the rate of unemployment is very high at 15.4 % and ranked 51/200 on the country comparison (Central Intelligence Agency, 2010). It is not surprising that the postgraduate students saw their degree as a means towards an end and that getting a better job was one of the major reasons for undertaking a postgraduate degree. As a result of high competition in the job market these students wanted to get a higher degree with the hope of securing a better job. Their responses also explain the expected link between higher education and better job prospects. In Pakistan most of the good jobs in both the public and private sectors require a postgraduate degree. These jobs generally offer better salary and benefits such as house rent and medical cover as compared to jobs available to those with a bachelor's degree only.

The students' responses can be further explained by taking into account the collectivist cultural context of Pakistan, where a degree is considered to be an honour to

the holder and entitles her/him to associate with a higher status group by getting a better job. The postgraduate students also linked their degree to a better and more successful future, by which they meant a future with a good job, better social and economic status, and the improved economic condition of their family (brothers, sisters and parents). Similarly, some participants wanted to improve their academic qualifications and engage in higher education, both of which were linked to acquiring more knowledge about the subject as well as a better awareness of the world around them.

According to previous research with collectivist cultural groups, education is considered as a means of improving the marriage prospects and enabling individuals, particularly females, to find more attractive marriage partners (Hofstede, et al., 2010). This aspect was found to be relevant in the context of Pakistan where marriages are generally arranged by family, who seek beneficial social links for their children, and the bride and groom may have very little say in the choice of a partner. This was reflected more generally in the responses of the females, who just wanted to have a postgraduate degree/ Masters degree associated with their qualification as this would add to their social status. Such responses were generally reported by females possibly due to the perception that a postgraduate degree would improve their marriage prospects.

Apart from the material benefits of the degree, some participants, mostly females from the Department of Gender Studies, wanted to gain more knowledge and awareness of the issues around them in order to find solutions to problems. These responses are quite understandable in the context of the teaching of Islam, where seeking knowledge is obligatory for men and women alike. This desire for more knowledge may be an

indication of the fulfilment of this obligation. They also considered their degree as a means of personal development. The possible explanation for the greater concern to acquire knowledge and learning among the females from the DGS may be that these students felt more empowered about their rights and the acquisition of these rights (Malik & Courtney, 2011). In order to gain a greater understanding of the sense of empowerment achievement by women in Pakistan through participation in higher education, Malik and Courtney (2011) collected data from 290 female faculty members and 1290 female postgraduate students from 10 public universities in Pakistan by conducting a survey and semi-structured interviews with 10 teachers and 10 students. The study showed that participation in higher education improves women's awareness of their legal rights, particularly in relation to divorce and inheritance laws. Nevertheless, it also showed that this awareness was not matched by an ability to claim these rights. Economic independence was found to be a strong motivating factor for participating in higher education and increased educational and social status was linked to increased levels of confidence and the experience of gaining a voice in family and community.

A postgraduate degree from the current department/ institution was a fall-back option for some students because they had not gained admission into the degree of their first choice. As mentioned earlier, the University of the Punjab is a very prestigious university, second on national ranking, therefore students all over Punjab, as well as from other provinces, aspire to study there. As a result, there is high competition for admission. The students under this response category were from two business-related departments (IBIT and DBE) and DGS. Students from the IBIT mentioned the Institute

of Business Administration (IBA) as their first preference, whereas students from DBE

mentioned IBA and Halley College of Commerce as institutions of their first preference.

Both these departments had higher admission merit scores as compared to the students'

current departments. The admission merit was the lowest in the DGS. Therefore, for

these students their current degree was likely the only option available.

9.4.2 Importance of future activities after the completion of current degree.

Doing a job was not only the most important reason for doing a postgraduate degree, it

was also the most important activity that these students wanted to pursue after their

degree. These results can be explained with reference to the future time perspective

research (Husman & Lens, 1999; Lens, 2001; McInerney, 2004; McInerney, et al., 2008;

Nurmi, 1991). Future time perspective serves as a basis for setting personal goals and

life plans and helps in exploring future options and taking major decisions (Seginer,

1992)

For the postgraduate students in the study sample, the current postgraduate

degree had a high instrumentality or utility value for the future, with students thinking

that a degree would help them to get a job in the future. According to Eccles (1984) this

high utility value can be considered a form of extrinsic motivation. The high extrinsic

motivation of the students is also evident from the results of the data on the motivational

beliefs of the students, discussed in Chapter 5 and Section 9.1.1. In accord with the

theoretical framework of this study (see Section 2.5), these results suggest that the

students' motivational beliefs are related to their future plans. Therefore the students'

high extrinsic goal and their high concern for good grades may be considered due to the fact that they aspire and plan to get a good job in the future. Another possible explanation for this importance attached to work in the future may be the fact the majority of the participants of the study belonged to middle/low income families with an average monthly income of less than 1000 Australian dollars (see Section 3.2.7.1), making it likely that these students wanted to improve their economic conditions/SES by getting a postgraduate degree and a good job.

It should be noted that a comparatively small percentage of students in almost all departments considered further study attractive (both at their current institution and at another institution in Pakistan). This may be because most of the students wanted to secure a job after their current degree. However a comparatively higher percentage of the students wanted to study abroad, though this varied across departments. For example, more students in IBIT (over 70%) and CELTL (over 60 %) than in DBE (50 %) and DGS (30%) considered it important to study further in another country. This preference for further study in a foreign country may be explained by the high rate of unemployment in Pakistan. For these students a foreign degree may provide opportunities for academic development, as well as greater chances of getting employment in Pakistan if not abroad.

In contrast to the previous research on the future goals of the college students, this study did not show any significant effect of gender on the importance of various future activities. In a study of the future goals of Greek college students by Abowitz and Knox (2003), being well educated, having close friends and family were rated

significantly more important by women than by men. It is quite unexpected and surprising in the social context of Pakistan, where the average age of females at marriage is 22.1 years (Government of Pakistan, 1999-2000), that although the postgraduate students in the present study did not ignore the importance of getting married and having a family, they did not rate this as their highest future goal. Regardless of the gender, few students in almost all departments considered marriage as an important future activity. However, Gangadharan and Maitra (2000) have demonstrated the significant impact of education on the age at marriage in Pakistan. Their study showed that an increase in the number of years of education increased the age at marriage. The lower importance of marriage indicated that postgraduate students were more career oriented at this point in their lives and preferred to do a job after their degree.

9.4.3 Preferred career /job.

Despite the high rate of unemployment in Pakistan, the majority of the participants of this study hoped to get a job after completing their current degree. Teaching or a lecturership was the preferred career option by the students from CELTL, and DM. There appeared to be a match between the higher percentage of females in CELTL and DM and the preferred choice of career. More females preferred teaching as a career and the degrees from these two departments provided the maximum opportunities for teaching. The graduates of CELTL generally get jobs in private English medium schools, whereas the graduates of the Mathematics department can get jobs in the government sector as well as in private institutions, and even when they are not able to find a job, they still have opportunities for employment as private educational tutors,

teaching students in their homes, and in privately run tuition centres. The preference for

teaching jobs among females is justified in the Pakistani socio-cultural context, where

there is an expectation of achieving a balance between family and work responsibilities.

Similarly this is reflected by students from the two business-related departments wanting

jobs related to finance, accounting and marketing in line with their specialised areas of

study. An explanation of their preferences is to be found in the large number of NGOs

working in Pakistan in relation to gender issues and human rights.

The major reasons for the choice of a preferred career as mentioned by the

postgraduate students were personal interest in that job. As outlined in Section 9.4.1,

personal interest was also mentioned as a major reason for the choice of their current

degree. Some other reasons mentioned by females were respectable jobs for ladies and

ease of attaining a balance between job and family. This preference is understandable in

the context of patriarchal values, embedded in Pakistani society, where women are

mostly placed in reproductive roles as mothers and wives in their private lives at home

whereas men are seen as the breadwinners. Women are generally not allowed to pursue a

career after marriage (Khan, 2007). Therefore the participants of the study were aware of

these expectations and preferred to do a job in which they could balance their roles as

career women and as wives and mothers at home.

The future plans of the students highlighted their strong instrumentality and

extrinsic goal orientation, characterised by their preference for a better job, financial

status and respect. Previous research has shown the influences of Future Time

Perspective (FTP) on student motivation (Husman & Lens, 1999), and instrumentality

has been found to be related to positive extrinsic motivation. The theoretical framework of this study (see Section 2.1) proposed that the future plans and life goals of the students are related to their academic motivation. In accordance with this framework, the discussion in Section 9.1 showed that the construct of intrinsic goal orientation was not meaningful for the current sample and students perceived it in terms of the task value. This study also showed (Section 5.1) that these postgraduate students had strong extrinsic goal orientation as reflected by their great concern for good grades and better performance.

9.5   Conclusions and Implications of the Study

From the results of the data analysis in Chapters Four to Eight and the discussion in previous sections, the following major conclusions were drawn along with their implications.

The results of the study draw attention to the importance of the socio-cultural context in cross-cultural research on student motivation and learning. The factor analysis of the six motivation scales of MSLQ and six course experience scales of CEQ revealed that the underlying factorial structure of the two western-based instruments was significantly changed when used with postgraduate students in the Pakistani context. The postgraduate students in Pakistan had different conceptions of what motivates them to learn and how they experience their learning. These results imply that although the MSLQ and the CEQ have the potential for exploring the motivational beliefs and course experiences of the postgraduate students, there is a need for further development and

careful adaptation of MSLQ and CEQ for application in other eastern contexts in general and in the context of Pakistani higher education in particular. These results draw attention towards the influence of socio-cultural factors, educational environments and academic practices in the investigation of motivation beliefs and course experiences.

Female postgraduate students were found to be more extrinsically motivated than males. Their high concern for better performance and grades indicated that these females were really motivated not only to get good grades and prove their ability to others but also to compete in the job market. They wanted to do their degree so that they could get a good job to support their parents and families, and to perhaps improve their marriage prospects. Their great concern for grades and better performance was also reflected in their higher anxiety about exams. However males and females had similar perceptions of their self-efficacy for learning and they valued their learning tasks equally. Female postgraduate students also demonstrated greater satisfaction with the quality of teaching, whereas males were found to be less satisfied. These results identified two important areas (extrinsic motivation and satisfaction with quality of teaching) that not only require attention and action to improve the quality of the learning environment from the perspective of all students, but significantly more so from the male than from the female perspective. Teachers may need to plan and organize their teaching in a manner that enhances motivation for better grades and performance among males as well as improving their overall experiences of learning.

Students' motivational beliefs and course experiences varied significantly across departments, indicating that the motivational beliefs and course experiences are

influenced by the discipline of study. These differences could inform the specific needs of the different departments in the design and implementation of the improved curriculum and content of the courses as well as teaching and learning activities in these departments.

Students enrolled in the afternoon shift were more test anxious and had more positive perceptions of being a part of a learning community than the students enrolled in the morning shift. These results have very important implications for the teachers. As the same teachers teach in the morning and afternoon shifts, therefore while teaching in the afternoon shifts they should discuss with students and try to explore the reasons for their test anxiety. Teachers should also try to adopt strategies that would minimise test anxiety among these students. While teaching in the morning shift, students should be provided with more opportunities to share and interact with staff as well as with fellow students so as to make them feel part of a learning community.

The results of the present study also provided empirical evidence for the role and importance of motivational beliefs and course experiences for classroom academic performance. The significant relationships among students' motivational beliefs, course experiences and their achievement have important practical implications for the lecturers and course designers to focus on students' motivational beliefs and how they experience their learning environment not only because it provides feedback, but also because it affects students' academic achievement. The factor of *learning community and resources* seems to be particularly important as it was positively related *to extrinsic goal orientation*, and *task value* beliefs as well as academic achievement of the students.

Opportunities should be provided for interaction and sharing of ideas with fellow students as well as course instructors along with appropriate access to sufficient resources to support student motivation and academic achievement. Similarly the positive relationships of perceptions of *good teaching* with *extrinsic goal orientation, self-efficacy for learning* and *task value* beliefs suggest that teachers should try to improve the quality of their teaching in order to improve and enhance the motivational beliefs of the students. Moreover a negative correlation between perceptions of *workload* and *self-efficacy* beliefs implies that attention should be paid to reviewing the academic *workload* so that students may have positive *self–efficacy* beliefs and be able to show better academic performance.

The postgraduate students saw their current degree as a means to getting a better job, having a better future and living a prosperous life. In other words this degree had high instrumentality and utility value for students. In line with the previous research on FTP this study lead us to conclude that future plans and life goals may influence the motivational beliefs of the students. This influence is reflected in the strong *extrinsic goal orientation* of the postgraduates.

To sum up it can be concluded that the results are consistent with the theoretical framework of this study (see Section 2.5, which was based on a social cognitive model of motivation and learning. In this model, motivation and learning can be seen as a multifaceted phenomenon that is dynamic and influenced by the context. This means that the students' entry characteristics (gender, SES, admission score and future plans and life goals) as well as the context of learning (department and shift of study) play a

part in the degree and nature of motivational beliefs and course experiences, thereby influencing the academic outcomes (academic achievement scores).

9.6　Recommendations for Future Research

The findings and limitations of this study mark out frontiers for future research. The following recommendations are made for further research on students' motivational beliefs and course experiences.

Firstly, since this study deals with Pakistani postgraduate students at one university, further studies can be broadened by including students at the undergraduate level. Students at other public and private universities in Lahore as well as in different regions of Pakistan should also be represented in such studies so that the social cognitive framework (Section 2.1) of this study can be tested with a more diverse sample of students. Moreover the results of the current study can be used for benchmarking purposes with other universities in Pakistan with an ultimate goal of improving student learning across universities.

Secondly, the current study used exploratory factor analysis to examine whether the factor structure of the MSLQ and CEQ could be replicated for the Pakistani postgraduate students. The use of exploratory factor analysis has its limitations since one cannot compare an a priori model against other alternative models (Rotgans & Schmidt, 2008). Therefore, future research on construct validity using confirmatory factor

analysis will further validate the factor structure of the MSLQ and CEQ for use in Pakistan.

Thirdly, this study has demonstrated that there are relationships and associations among contextual factors, motivational beliefs, course experiences and academic outcomes, but the exploratory nature of the analysis prevented cause and effect conclusions. A structural equation modelling (SEM) may be employed in future so that causal relationships among the variables under study can be traced and be theorised more firmly. Moreover a longitudinal or experimental investigation might also be conducted to make strong claims about causality.

Lastly, this study has demonstrated that motivational beliefs and course experiences are influential on, or are related to each other as well as to academic achievement. A next step would be to discern how course experiences can be improved and how motivational beliefs can be strengthened in various classroom contexts. Action research may be an alternative research design for such a study.

In sum, Learning is an important human endeavour, which is affected by the contexts in which it occurs. Learners' motivations and experiences are intricately related to their past, present and future contexts. This study has shown the importance of identifying and understanding the contextual factors affecting students' motivational beliefs and course experiences so that these factors can be addressed when improving quality of postgraduate degree programmes in Pakistan.

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Appendices

Appendix A

MSLQ Scales and Items Used in the Questionnaire

Item No	Items	MSLQ Scales
M1	In a class like this, I prefer course material that really challenges me so I can learn new things.	Intrinsic Goal Orientation
M2	If I study in appropriate ways, then I will be able to learn the material in this course.	Control of Learning
M3	When I take a test I think about how poorly I am doing compared with other students.	Test Anxiety
M4	I think I will be able to use what I learn in this course in other courses.	Task Value
M5	I believe I will receive an excellent grade in this class.	Self-efficacy for Learning and Performance
M6	I'm certain I can understand the most difficult material presented in the readings for this course.	Self-efficacy for Learning and Performance
M7	Getting good grade in this class is the most satisfying thing for me right now.	Extrinsic goal Orientation
M8	When I take a test I think about items on other parts of the test I can't answer.	Test Anxiety
M9	It is my own fault if I don't learn the material in this course.	Control of Learning
M10	It is important for me to learn the course material in this class.	Task Value
M11	The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.	Extrinsic Goal Orientation
M12	I am confident I can understand the basic concepts taught in this course.	Self-efficacy for Learning and Performance
M13	If I can, I want to get better grades in this class than most of the other students.	Extrinsic goal Orientation
M14	When I take a test I think of consequences of failing.	Test Anxiety

Item No	Items	MSLQ Scales
M15	I'm confident I can understand the most complex material presented by the instructor I this course.	Self-efficacy for Learning and Performance
M16	In a class like this, I prefer course material that arouses my curiosity, even if it is difficult for me.	Intrinsic Goal Orientation
M17	I am very interested in the content area of this course.	Task Value
M18	If I try hard enough, then I will understand the course material.	Control of Learning
M19	I have an uneasy, upset feeling when I take an exam.	Test Anxiety
M20	I am confident that I can do an excellent job on assignments and tests in this course.	Self-efficacy for Learning and Performance
M21	I expect to do well in this class.	Self-efficacy for Learning and Performance
M22	The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.	Intrinsic Goal Orientation
M23	I think the course material in this class is useful for me to learn.	Task Value
M24	When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade.	Intrinsic Goal Orientation
M25	If I don't understand the course material, it is because I didn't try hard enough.	Control of Learning
M26	I like the subject matter of this course.	Task Value
M27	Understanding the subject matter of this course is very important to me.	Task Value
M28	I feel my heart beating fast when I take an exam.	Test Anxiety
M29	I'm certain I can master the skill being taught in this class.	Self-efficacy for Learning and Performance
M30	I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.	Extrinsic goal Orientation
M31	Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.	Self-efficacy for Learning and Performance

Appendix B

CEQ Scales and Items Used in the Questionnaire

Item No	Item	Scale
L1	The teaching staff of this course motivate students to do their best work.	Good Teaching
L2	It's always easy here to know the standard of work expected.	Clear Goals and Standards
L3	To do well in this course all you need is a good memory.	Appropriate Assessment
L4	The workload is too heavy.	Appropriate Work Load
L5	The library resources are appropriate for my needs.	Learning Resources
L6	I feel part of a group of students and staff committed to learning.	Learning Community
L7	Staff put a lot of time into commenting on students' work.	Good Teaching
L8	You usually have a clear idea of where you are going and what is expected of you.	Clear Goals and Standards
L9	Staff seem more interested in testing what you have memorised than what you have understood.	Appropriate Assessment
L10	We are generally given enough time to understand the things we have to learn.	Appropriate Workload
L11	Where it is used, the information technology in teaching and learning is effective.	Learning Resources
L12	I am able to explore academic interests with staff and other students.	Learning Community
L13	The staff of this course make a real effort to understand difficulties students may be having with their work.	Good Teaching
L14	It's often hard to discover what is expected of you in this course.	Clear Goals and Standards
L15	Staff ask us questions just about facts.	Appropriate Assessment
L16	There is a lot of pressure on you as a student.	Appropriate

Item No	Item	Scale
		Workload
L17	It is made clear what resources are available to help me learn.	Learning Resources
L18	I can explore ideas confidently with other people.	Learning Community
L19	Teaching staff of this course normally give helpful feedback on how you are going.	Good Teaching
L20	The staff makes it clear right from the start what they expect from students.	Clear Goals and Standards
L21	The sheer volume of work to get through this course means you can not comprehend it all thoroughly.	Appropriate Work Load
L22	The study materials are clear and concise.	Learning Resources
L23	Students' ideas and suggestions are used during the course.	Learning Community
L24	Teaching staff is extremely good at explaining things to students.	Good Teaching
L25	Course materials are relevant and up to date.	Learning Resources
L26	I feel I belong to the university community.	Learning Community
L27	Teaching staff work hard to make subject interesting.	Good Teaching

Appendix C

Questionnaire

Your Experiences of Learning in Higher Education

A Questionnaire

Part I

This part of the questionnaire seeks some personal details. Please indicate your answer by putting 'X' in the box ☒ that best matches your answer.

1. Name _____ 2. Punjab University student ID _____

3. ☐ Male   *or*   ☐ Female

4. Age _____ Years _____ Months

5. From which university did you get your Bachelors Degree (BA/BSc)?

   ☐ University of the Punjab   ☐ Government College University Fisalabad
   ☐ Bahauddin Zakariya University Multan   ☐ Kinnard College for Women Lahore
   ☐ Islamia University Bahawalpur   ☐ Lahore College for Women University Lahore
   ☐ Fatima Jinnah Women University Rawalpindi   ☐ University of Sargodah
   ☐ Government College University Lahore   ☐ Allama Iqbal Open University

   ☐ Other, please specify _____

6. What was the mode of examination in your Bachelors Degree?

   ☐ Annual Examination   ☐ Semester Examination

7. In which faculty are you enrolled?
   ☐ Faculty of Behavioural and Social Sciences ☐ Faculty of Education
   ☐ Faculty of Economics and Management Sciences ☐ Faculty of Science

8. In which department/institute are you enrolled?
   ☐ Department of Women Studies   ☐ Institute of Business and Information
                                                    Technology
   ☐ Institute of Education and Research   ☐ Department of Mathematics

9. In which programme are you enrolled?
   ☐ Morning (Regular)   ☐ Afternoon (Self Support)

11. What was your admission score on the merit list? _____

12. What is your current GPA? _____

13. Where do you live in Lahore?
    ☐ In your own house.   ☐ In the Punjab University hostel.
    ☐ In a private hostel.   ☐ With a relative or friend.
    ☐ You travel daily from your city to Lahore   ☐ Other, please specify_____

14. What is the monthly income of your parents? _____ Rupees

1

15. How many cars does your family have?
    ☐ None   ☐ One
    ☐ Two   ☐ More than two

16. Do you own a car?   ☐ Yes   ☐ No

17. Please indicate the highest educational qualification of your parents?

MOTHER	FATHER
☐ PhD	☐ PhD
☐ MPhil	☐ MPhil
☐ Maters Degree	☐ Masters degree
☐ Bachelor s Degree	☐ Bachelor Degree(BA/BSc)
☐ Higher Secondary School Certificate(FA/FSc)	☐ Higher Secondary School Certificate(FA/FSc)
☐ Secondary School Certificate (Matric)	☐ Secondary School Certificate (Matric)
☐ Middle	☐ Middle
☐ Primary	☐ Primary
☐ Other (please specify) _____	☐ Other (please specify) _____

18. What do you get from your parents as your monthly pocket money?   _____ Rupees

19. Are you getting a scholarship?   ☐ Yes   ☐ No

20. If yes, which scholarship are you getting?
    ☐ Merit Scholarship   ☐ Tuition Fee Weaver
    ☐ Need Based Scholarship   ☐ Any other (please specify) _____

21. Do you have paid work in addition to studying at Punjab University?   ☐ Yes   ☐ No

22. If yes, what is the average number of hours you undertake paid work per week?
    ☐ Less than 5 hrs   ☐ 5-10 hrs   ☐ 11-15 hrs   ☐ 16-20 hrs   ☐ More than 20 hrs

23. How much do you earn from your job every month?   _____ Rupees

Part II

The following questions ask about your motivation for and attitude about this course. Remember there are no right or wrong answers; just answer the questions as accurately a possible. Use the scale below to answer the questions. If you think the statement is very true of you, put a X in the box under 7; if a statement is not true of you, put a X in the box under 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you. Place a X in the appropriate box.

		Not at all true of me						Very true of me
		1	2	3	4	5	6	7
1	In a class like this, I prefer course material that really challenges me so I can learn new things.							
2	If I study in appropriate ways, then I will be able to learn the material in this course.							
3	When I take a test I think about how poorly I am doing compared with other students.							
4	I think I will be able to use what I learn in this course in other courses.							
5	I believe I will receive an excellent grade in this class.							

2

		Not at all true of me						Very true of me
		1	2	3	4	5	6	7
6	I'm certain I can understand the most difficult material presented in the readings for this course.							
7	Getting a good grade in this class is the most satisfying thing for me right now.							
8	When I take a test I think about items on other parts of the test I can't answer.							
9	It is my own fault if I don't learn the material in this course.							
10	It is important for me to learn the course material in this class.							
11	The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.							
12	I am confident I can understand the basic concepts taught in this course.							
13	If I can, I want to get better grades in this class than most of the other students.							
14	When I take a test I think of consequences of failing.							
15	I'm confident I can understand the most complex material presented by the instructor I this course.							
16	In a class like this, I prefer course material that arouses my curiosity, even if it is difficult for me.							
17	I am very interested in the content area of this course.							
18	If I try hard enough, then I will understand the course material.							
19	I have an uneasy, upset feeling when I take an exam.							
20	I am confident that I can do an excellent job on assignments and tests in this course.							
21	I expect to do well in this class.							
22	The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.							
23	I think the course material in this class is useful for me to learn.							
24	When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade.							
25	If I don't understand the course material, it is because I didn't try hard enough.							
26	I like the subject matter of this course.							
27	Understanding the subject matter of this course is very important to me.							
28	I feel my heart beating fast when I take an exam.							
29	I'm certain I can master the skill being taught in this class.							
30	I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.							
31	Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.							

3

Part III

This part of the survey seeks information about your experiences of learning in this course. Please indicate your answer by putting 'X' in the box ☒ of your chosen answer.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The teaching staff of this course motivate students to do their best work.					
2	It's always easy here to know the standard of work expected.					
3	To do well in this course all you need is a good memory.					
4	The workload is too heavy.					
5	The library resources are appropriate for my needs.					
6	I feel part of a group of students and staff committed to learning.					
7	Staff put a lot of time into commenting on students' work.					
8	You usually have a clear idea of where you are going and what is expected of you.					
9	Staff seem more interested in testing what you have memorised than what you have understood.					
10	We are generally given enough time to understand the things we have to learn.					
11	Where it is used, the information technology in teaching and learning is effective.					
12	I am able to explore academic interests with staff and other students.					
13	The staff of this course make a real effort to understand difficulties students may be having with their work.					
14	It's often hard to discover what is expected of you in this course.					
15	Staff ask us questions just about facts.					
16	There is a lot of pressure on you as a student.					
17	It is made clear what resources are available to help me learn.					
18	I can explore ideas confidently with other people.					
19	Teaching staff of this course normally give helpful feedback on how you are going.					
20	The staff make it clear right from the start what he/she expects from students.					
21	The sheer volume of work to get through this course means you cannot comprehend it all thoroughly.					
22	The study materials are clear and concise.					
23	Students' ideas and suggestions *are* used during the course.					
24	Lecturer is extremely good at explaining things to students.					
25	Course materials are relevant and up to date.					
26	I feel I belong to the university community.					
27	Teaching staff work hard to make the subject interesting.					

Part IV

Please answer the following questions in your own words

1. I decided to do my current degree because:

    _____

    _____

    _____

2. Following your current programme of study how important is it for you to:

	Not Important 1	2	3	4	Very Important 5
do a job					
study further at this institution					
study further at another institution in Pakistan					
study further at another institution abroad					
get married and have family					
Other please specify_____					

3. Do you hope to get a career/job as a result of your current degree? ☐ Yes ☐ No

4. The career/job I would prefer after completing my degree is:

    _____

    _____

    _____

5   I have chosen this career/job because:

    _____

    _____

    _____

Appendix D
Admission Criteria

The academic score was calculated by adding scores together using the following formula:

¼ of total marks obtained in Secondary School Certificate Examination (S.S.C).

1/5 of the total marks obtained in Intermediate Examination (F.A/FSc).

 Total marks of Bachelors (BA /BSc).

Criteria laid down by individual departments.

20 marks are added for each of the following

National Cadet Course (N.C.C)/ Women Guard (W.G)

Hafiz-e-Quran (Memorization of Holy Quran)

Appendix E

Ethical Approval of the Study

MONASH University

Standing Committee on Ethics in Research Involving Humans (SCERH)
Research Office

Human Ethics Certificate of Approval

Date: 10-October-2008

Project Number: CF08/2642 - 2008001344

Project Title: Impact of Motivational Beliefs on the Experiences of Learning in
                          Higher Education

Chief Investigator: Dr Paul Richardson

Approved: From: 10-October-2008   To: 10-October-2013

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained and a copy forwarded to SCERH before any data collection can occur at the specified organisation. **Failure to provide permission letters to SCERH before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research**.
2. Approval is only valid whilst you hold a position at Monash University.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by SCERH.
4. You should notify SCERH immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project (including changes in personnel):** Requires the submission of a Request for Amendment form to SCERH and must not begin without written approval from SCERH. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. SCERH should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by SCERH at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

Professor Ben Canny
Chair, SCERH

Cc: Mrs Munaza Nausheen

Postal – Monash University, Vic 3800, Australia
Building 3E, Room 111, Clayton Campus, Wellington Road, Clayton
Telephone +61 3 9905 5490 Facsimile +61 3 9905 1420
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ABN 12 377 614 012 CRICOS Provider #00008C

Appendix F

Exploratory Descriptive Analysis Demographic and Background Information (Questionnaire Part 1)

Missing values

An analysis for missing values showed that the number of missing responses was quite high for four questions, monthly income of parents (36, 9.8%) educational qualification of mother (27, 8.4%) and educational qualification of father (31, 8.4%), and monthly pocket money (46, 12.5%)

Table 1

Missing Values

Questions		Missing	
	N	Count	Per cent
What was your admission score on the merit list?	358	10	2.7
What is your current CGPA?	367	1	.3
Marks in the course	364	4	1.1
What is the monthly income of your parents?	332	36	9.8
What is the educational qualification of your mother?	341	27	7.3
What is the educational qualification of your father?	337	31	8.4
What do you get form your parents as your monthly pocket money?	322	46	12.5

Missing values for admission scores, current CGPAs and marks in the course were checked in the questionnaires and lists obtained from the students record office and entered in the data file. However, in the statistical analysis of data, missing cases

(respondents) for monthly income, educational qualification and monthly pocket money were excluded as pair wise, that is, only if they were missing the data required for the specific analysis. They were still included in any of the analyses for which they had the necessary information.

 Normality of data

A Kolomogrov-Smirnov Test was used to test the normality of data on four questions, admission score, achievement scores, monthly income of parents and monthly pocket money. The significance values (P> .05) for admission scores, achievement scores, current CGPA, monthly income of parents and the monthly pocket money indicated the normality of data as shown in Table 2.

Table 2

One-Sample Kolmogorov-Smirnov Test

		Admission score	Achievement score	Monthly income of parents	current GPA	Monthly pocket money
N		49	48	43	50	41
Normal Parametersa	M	60.27	77.40	36013.95	3.13	2215.85
	S D	7.43	12.35	35065.09	.46	1540.23
Most Extreme Differences	Absolute	.096	.12	.21	.07	.17
	Positive	.06	.07	.21	.07	.17
	Negative	-.096	-.12	-.196	-.07	-.10
Kolmogorov-Smirnov Z		.67	.795	1.35	.52	1.06
Asymp. Sig. (2-tailed)		.75	.55	.05	.95	.21

The normality of data on admission scores (Figure 4.1), achievement scores (Figure 4.2) was also supported by histograms and Normal Q-Q plots. Whereas the histogram and Q-Q plots for monthly income and monthly pocket money reflect positively skewed distributions, as shown in Figures 3 and 4.

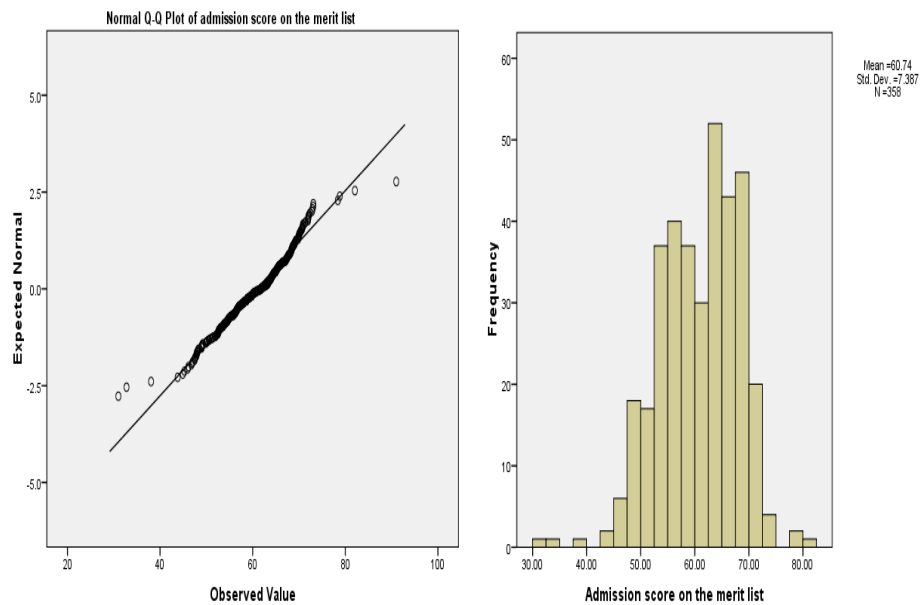*Figure 1* Admission score
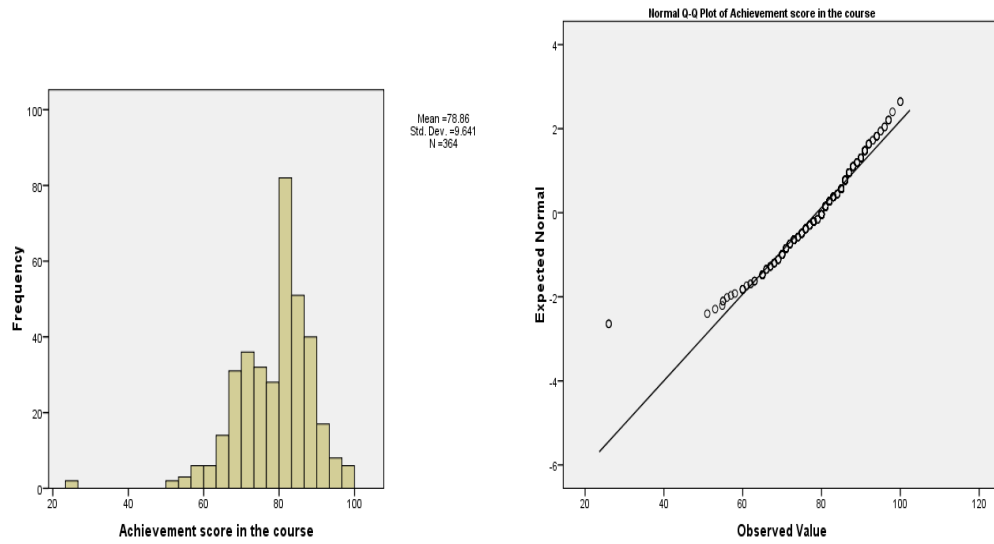
Figure 2 Achievement score

The histogram and normal Q-Q plots for monthly income of parents and monthly pocket money showed positively skewed distributions (Figures 4.3 and 4.4).
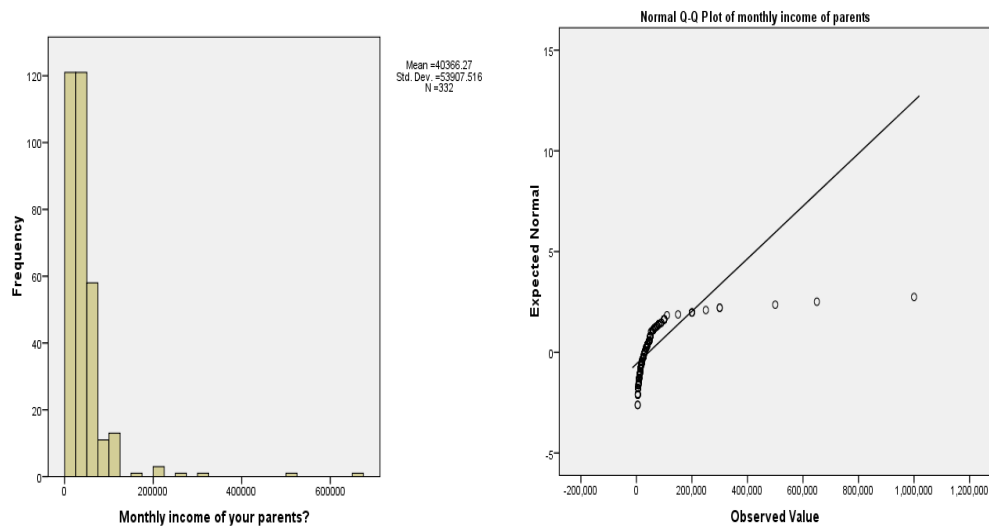
Figure.3 Monthly income of parents
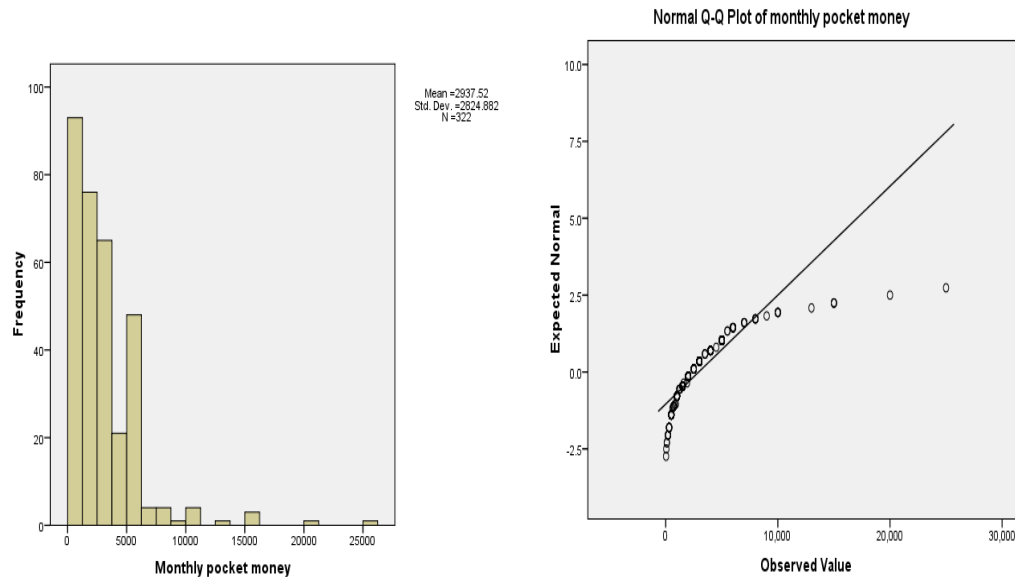
Figure 4 Monthly pocket money

Outliers

The histograms and the box plots of the data on four variables, admission scores,

achievement scores and monthly income of parents and monthly pocket money indicated
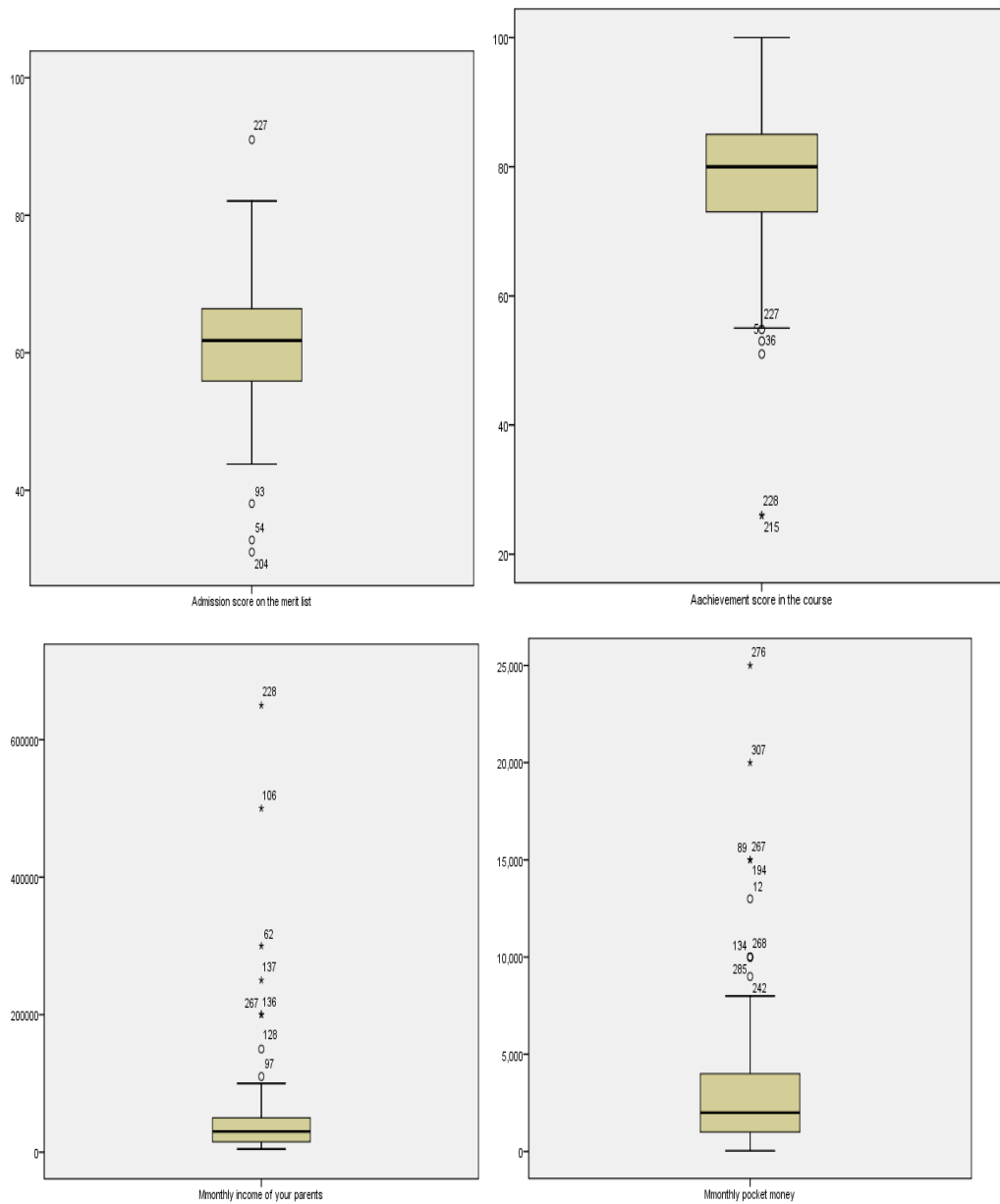
the outliers

Figure.5 Outliers

These outliers were checked with the questionnaires and corrections were made to the

achievement scores and admission score of ID 227 and monthly income of ID 307. In

order to make decision about the outliers in the further analysis of data the values of 5%

trimmed mean were reviewed. Some of these extreme values were slightly influencing the mean monthly income and pocket money. These extreme values were included in further analysis such as while calculating mean monthly income and monthly pocket money.

Appendix G

Total Variance Explained by Extracted Factors for MSLQ

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.451	20.810	20.810	5.804	18.724	18.724	3.940	12.711	12.711
2	2.741	8.843	29.653	2.039	6.578	25.302	2.344	7.562	20.273
3	1.949	6.287	35.940	1.222	3.943	29.245	1.937	6.248	26.521
4	1.445	4.662	40.602	.824	2.657	31.902	1.668	5.381	31.902
5	1.280	4.130	44.732						
6	1.225	3.952	48.684						
7	1.141	3.681	52.364						
8	1.122	3.620	55.985						
9	1.046	3.373	59.358						
10	.943	3.041	62.399						
11	.913	2.947	65.346						
12	.875	2.823	68.169						
13	.810	2.613	70.782						
14	.760	2.453	73.234						
15	.716	2.311	75.545						
16	.708	2.284	77.830						
17	.687	2.215	80.045						
18	.658	2.124	82.169						
19	.613	1.976	84.145						
20	.584	1.883	86.028						
21	.565	1.822	87.850						
22	.512	1.653	89.503						
23	.490	1.580	91.083						
24	.461	1.486	92.569						

25	.399	1.288	93.857						
26	.369	1.191	95.048						
27	.358	1.156	96.203						
28	.332	1.070	97.273						
29	.308	.993	98.266						
30	.298	.962	99.228						
31	.239	.772	100.000						

Extraction Method: Maximum Likelihood.

Appendix H

Total Variance Explained by Extracted Factors for CEQ

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.274	23.235	23.235	6.274	23.235	23.235	4.475	16.573	16.573
2	2.183	8.083	31.319	2.183	8.083	31.319	3.402	12.600	29.173
3	1.572	5.822	37.141	1.572	5.822	37.141	2.151	7.968	37.141
4	1.307	4.842	41.983						
5	1.231	4.558	46.541						
6	1.153	4.269	50.810						
7	1.084	4.015	54.825						
8	1.028	3.808	58.634						
9	.948	3.513	62.146						
10	.931	3.450	65.596						
11	.852	3.157	68.753						
12	.786	2.911	71.663						
13	.741	2.744	74.407						
14	.694	2.571	76.978						
15	.679	2.515	79.493						
16	.632	2.342	81.835						
17	.572	2.118	83.953						
18	.560	2.076	86.028						
19	.524	1.942	87.970						
20	.502	1.858	89.829						
21	.483	1.789	91.618						
22	.473	1.752	93.370						
23	.443	1.641	95.011						
24	.400	1.480	96.491						
25	.340	1.259	97.750						
26	.324	1.200	98.950						
27	.283	1.050	100.000						

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.274	23.235	23.235	6.274	23.235	23.235	4.475	16.573	16.573
2	2.183	8.083	31.319	2.183	8.083	31.319	3.402	12.600	29.173
3	1.572	5.822	37.141	1.572	5.822	37.141	2.151	7.968	37.141
4	1.307	4.842	41.983						
5	1.231	4.558	46.541						
6	1.153	4.269	50.810						
7	1.084	4.015	54.825						
8	1.028	3.808	58.634						
9	.948	3.513	62.146						
10	.931	3.450	65.596						
11	.852	3.157	68.753						
12	.786	2.911	71.663						
13	.741	2.744	74.407						
14	.694	2.571	76.978						
15	.679	2.515	79.493						
16	.632	2.342	81.835						
17	.572	2.118	83.953						
18	.560	2.076	86.028						
19	.524	1.942	87.970						
20	.502	1.858	89.829						
21	.483	1.789	91.618						
22	.473	1.752	93.370						
23	.443	1.641	95.011						
24	.400	1.480	96.491						
25	.340	1.259	97.750						
26	.324	1.200	98.950						
27	.283	1.050	100.000						

Extraction Method: Principal Component Analysis.

Appendix I

Coefficients for Multinomial Logistic Regression

Parameter Estimates

Following your current programme of study how important is it for you to do a job[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Not Important	Intercept	-2.123	.606	12.261	1	.000			
	[Gender=1]	-.183	.480	.145	1	.704	.833	.325	2.136
	[Gender=2]	0[b]	.	.	0	.	.	.	.
	[Q8=1]	.290	.764	.145	1	.704	1.337	.299	5.973
	[Q8=2]	.762	.696	1.200	1	.273	2.143	.548	8.383
	[Q8=3]	-.465	.852	.298	1	.585	.628	.118	3.335
	[Q8=4]	.088	.674	.017	1	.896	1.092	.291	4.092
	[Q8=5]	0[b]	.	.	0	.	.	.	.
	[Q9=1]	.128	.420	.092	1	.762	1.136	.499	2.589
	[Q9=2]	0[b]	.	.	0	.	.	.	.
2	Intercept	-3.887	1.104	12.400	1	.000			
	[Gender=1]	-.545	.596	.836	1	.361	.580	.180	1.866
	[Gender=2]	0[b]	.	.	0	.	.	.	.
	[Q8=1]	.403	1.445	.078	1	.781	1.496	.088	25.407
	[Q8=2]	1.908	1.150	2.753	1	.097	6.739	.708	64.183
	[Q8=3]	.778	1.291	.363	1	.547	2.178	.173	27.346
	[Q8=4]	1.553	1.107	1.966	1	.161	4.724	.539	41.390
	[Q8=5]	0[b]	.	.	0	.	.	.	.
	[Q9=1]	.661	.545	1.471	1	.225	1.937	.665	5.640
	[Q9=2]	0[b]	.	.	0	.	.	.	.
3	Intercept	-4.050	1.069	14.347	1	.000			
	[Gender=1]	-.169	.430	.155	1	.694	.844	.364	1.960
	[Gender=2]	0[b]	.	.	0	.	.	.	.
	[Q8=1]	2.042	1.134	3.243	1	.072	7.707	.835	71.143
	[Q8=2]	1.975	1.128	3.066	1	.080	7.205	.790	65.693
	[Q8=3]	1.967	1.120	3.085	1	.079	7.148	.796	64.176
	[Q8=4]	2.121	1.073	3.910	1	.048	8.342	1.019	68.295

	[Q8=5]	0[b]	.	.	0	.	.	.	.
	[Q9=1]	.835	.403	4.299	1	.038	2.304	1.047	5.073
	[Q9=2]	0[b]	.	.	0	.	.	.	.
4	Intercept	-.886	.393	5.082	1	.024			
	[Gender=1]	-.376	.331	1.292	1	.256	.687	.359	1.313
	[Gender=2]	0[b]	.	.	0	.	.	.	.
	[Q8=1]	.917	.463	3.913	1	.048	2.501	1.009	6.204
	[Q8=2]	-.239	.547	.191	1	.662	.787	.269	2.301
	[Q8=3]	.589	.482	1.491	1	.222	1.801	.700	4.633
	[Q8=4]	-.200	.461	.189	1	.664	.818	.332	2.019
	[Q8=5]	0[b]	.	.	0	.	.	.	.
	[Q9=1]	-.200	.277	.521	1	.470	.819	.476	1.409
	[Q9=2]	0[b]	.	.	0	.	.	.	.

a. The reference category is: Very Important.

b. This parameter is set to zero because it is redundant.

Appendix J

Matrix of Scatter Plots to Test the Assumption of Linearity for MANCOVA
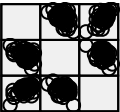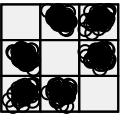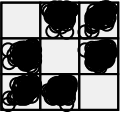
Department/Institute

Shift

Afternoon · Morning

Good_Teaching · Learning_Community_and_Resources

Good_Teaching · Appropriate_Work_Load · Learning_Community_and_Resources

Department/Institute

Appendix K

Letter of Acceptance for Research Article in Higher Education Research and Development

Monash University (Student) Mail - Higher Education Research & D...   https://mail.google.com/mail/u/0/?ui=2&ik=1f287c3dd8&view=pt...

Munaza Nausheen ▮▮▮▮▮▮▮▮▮▮▮▮

Higher Education Research & Development - Decision on Manuscript ID CHER-2011-0069.R2

2 messages

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To: ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮

31-Jan-2012

Dear Mrs Nausheen

Ref: The Relationships between the Motivational Beliefs, Course Experiences and Achievement among Postgraduate Students in Pakistan

Thank you for addressing the reviewers' comments about your paper. We are delighted to accept the paper in its current form and will now forward it to the publisher for copy editing and typesetting. The reviewer comments are included at the end of this email for your information.

Currently, HERD has a minimum lead-time of 12-18 months before publication of a manuscript in an issue. However, we try to publish all manuscripts electronically on iFirst 6-12 months in advance of issue publication. You will receive proofs for checking and instructions for transfer of copyright in due course. Once you receive the proofs, you will be asked to check them through the publisher's tracking system within 48 hours of receipt.

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Sincerely

Dr Manathunga
Co-Editor, Higher Education Research & Development
▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮

Reviewer(s)' Comments to Author:

Editor's Comments to Author:

Associate Editor
Comments to the Author:
(There are no comments.)

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