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What Should I Study? Factors Affecting Student Choice of Subject at Libyan Universities

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BA, M.Sc

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Dedication

I would like to dedicate this Doctoral dissertation to my mother who made innumerable sacrifices and spent all her life to see me achieve this goal; and to my sincere wife who has been very helpful on this journey. I also dedicate this work to my sons, daughters and my sisters.

Acknowledgment

This work would not have reached this point without the help and support from my holy God, Allah the Almighty whom I must thank. I gratefully acknowledge the help and guidance given by supervisor at the University of Nottingham, School of Education, Professor W. John Morgan who encouraged me from the first moment I met him when he gave me the confidence and support to reach this point. I also thank all the staff in the School of Education, specially Jackie Stevenson, the Postgraduate Research Administrator for her support. In addition, I thank all my colleagues and PhD students in the School of Education for the productive conversations we have had. Additionally, I would like to thank all members of staff and students in the Libyan Universities who helped me in this work during my field study. Finally, I must thank my family for being patient as well as encouraging me when this work has taken much time at their expense.

Abstract

This thesis focuses on the analysis and discussion of issues and factors influencing Libyan students' subject choices at undergraduate level. It reviews the literature in the field, situating the study firmly in the context of educational research. However, it is noted that this literature has mainly emerged from Western contexts, and hence cultures. Nonetheless, the body of literature is used as a framework to analyse the Libyan case.

The main research question focuses on the main factors influencing the choice process in respect of the field of study for first year undergraduates at Libyan universities. Further questions regarding why students choose to attend university, their perceptions of subjects, and the concerns and influences brought to bear in the choice process are posed. A mixed methods approach is adopted in which the research sample comprises first year students at four different universities in Libya, in order to identify any differences and similarities in the choice process among the students in different regions and different disciplines. Both questionnaire survey and interviews are used to secure fact and opinion regarding the mechanisms employed by students to make their choice of subject. Four different subjects are considered so that comparisons can be made of the influences that are brought to bear in student choice. Underpinning the research

instruments is the theoretical framework consisting of cultural capital, social capital, and human capital, as obtained from the comprehensive literature review.

The research was conducted in two phases, the first being quantitative, in which 2,209 questionnaires were completed by first year students at two coastal city universities and two rural city universities in Libya. The second phase was qualitative, and involved 65 individual interviews, together with a focus group discussion to cater for female students who excused themselves from participating in the individual interviews because of their religious and cultural beliefs.

The research findings show that the subject choice process is influenced by multiple factors and that substantial differences between subject choices are seen among urban and rural students, the latter being destined to study in poorly equipped rural universities. As evidenced in the responses, there is no equity in the provisions of Libyan universities. A further result is that the student's academic ability has little influence on the selection process, and that other factors such as the parents' level of education, institutional infrastructure, career prospects and geographical location play important parts in influencing the decision. More interestingly, the study established that students from urban areas

with educated parents are more likely to take courses offered in long established universities in the cities.

The thesis concludes by highlighting the pertinent points in the research, and makes recommendations for Libyan policy-makers and higher education institutions on how to facilitate the improvement of the student subject choice process. Additionally, it suggests possible avenues for further research area around the topic of this thesis. As a final note, the thesis offers a brief explanation of the socio-political, economic and cultural changes that have taken, and continue to take place, since the overthrow of the previous regime on 23rd October, 2011.

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List of abbreviations

- F.G.G: Focus group of students from Gharyounis University
- F.G.J: Focus group of students from Aljabal Algharbi University will
- F.G.M: Focus group of students from the Seventh of October University
- F.G.S: Focus group of students from Sabha University.
- GPCGE: The General People’s Committee of General Education.
- GPCMTO: The General People’s Committee for Manpower, Training and Operations
- HE: Higher Education
- HEIs: Higher educational institutions
- LME: Libyan ministry of education
- UNESCO: United Nations Educational Scientific Cultural

PREFACE

My interest in this thesis subject stemmed from the days when some of my children finished secondary school and had to decide not only to choose a university to attend, but also what subjects to study . It became apparent, when as undergraduates we started discussing issues and the multi-factors which influenced our choices, that process was complex and problematic. Later as a young lecturer at one of the Libyan universities, I experienced the problem through my students, and began to think seriously of the need to undertake a systematic research to highlight the nature and the complexity of the multi-factors involved in the process of subject choices at the universities. The aim was to suggest possible solutions that would facilitate students' choice of subject.

I got the opportunity to study for a PhD programme abroad in 2007. Naturally, my choice of subject for the thesis was my long-standing interest and concern-students' subject choice in Libya's higher education. This thesis was begun in 2007 and my original intention was to explore the factors that have a real impact on students' subject choice in Libyan HE. This was during the Gaddafi regime. However, as my thesis was coming to a conclusion, it was overtaken by events of the uprising in Libya which started on 17thFebruary .2011, and the Gaddafi regime was officially overthrown over 23rd October, 2011.

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On one hand, although the situation in Libya now is not as stable as it should be there is a great hope that the future will be one of democracy and freedom. On the other hand, among the changes taking place in Libyan society, there is an urgent need to reconstruct the Libyan higher education system to keep the pace with the developments in the world. I am confident that my thesis and what I have come to understand about the student intention to study in higher education and recommendations will remain of great value in this process.

The universities where the fieldwork was conducted were from four different cities. Interviews were conducted between 30-4-2009 to 30-6-2009 and the responses to the questionnaires were collected and analysed before February 2011. The infrastructures of these institutions mark the main differences, for instance, Gharyounis University is the oldest university in Libya, located in Benghazi, hence it has better facilities when compared with Sabha and Aljabal Algharbi that are new and were started as one faculty colleges and recently transformed into universities. While Libya is presently undergoing socio-political and economic changes it will be sometime before there is political stability. Although the higher education institutions were in the middle of the academic year they are currently closed since both students and staff were either participating in the war, have left the country or have become casualties of the

war. From a conflict point of view, the revolution of 17th February in Libya will play an instrumental role for higher education transformation, economic and political changes

Post-conflict the education system is going to go through tremendous changes and developments before there is a quality education system in place. It is hoped that the new system will produce skilful and competitive students for the open market. Academic freedom, where students can ask for their right to an acceptable standard of Education in the twenty-first century is also a necessity. Indeed, this will give students more subject choice leading to better employment opportunities in the labour market and contribute to Libya's prosperous and peaceful future.

The current situation in Libya

This study was an attempt to identify the factors that influence the choice of subject in university stage; however, in the wake of the Libyan uprising higher education in Libya will face multiple challenges and dilemmas. The war has led to the breakdown of order and of the administrative infrastructures, while the pre-war social, cultural and economic networks have been fragmented. So far, there is no official and accurate statistics about the number of people who died

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as a result of the war. On the other hand, the Gaddafi regime was overthrown through a grassroots uprising comprising many people, including students and teachers, and others, from different professions, who did not support the government, became either combatants or, in the case of the medical profession, emergency doctors. This has created a vacuum since some are still actively fighting to help the Libyan Transitional Council to bring the whole country under its control; others either have disappeared without any trace or have been maimed and disabled. Similar to people in other violent conflicts, combatants and ordinary Libyans, especially children in the worst hit cities such as Misratah, are experiencing post war psychological trauma and will need to have rehabilitation in order to adjust to normal life. Many females lost their husbands who were the breadwinners of the families, therefore, they will be searching for ways to solve their financial problems; and one possible scenario is an increase in the number of females taking up educational courses that would enable them to earn incomes. The general impact of the war on the educational infrastructure is that buildings have either been destroyed or looted, therefore, across the country, educational institutions are still closed. During the Gaddafi era, curricula were instituted offices that related to official thoughts and attitudes or what Ann Marlowe (2011) has described as “Green Book-inflected ideology”. For example, it was mandatory for all students in higher education institutions to

take and pass a module entitled, “Political Culture” that concentrated on his *Green Book*. If a student did not attend the module he was treated as an enemy of the state. Hence, it is not surprising that one of the first actions to be taken by the new head of the Higher Education Section of the Ministry of Education has been to abolish these strands from the education curricula in which “secondary and tertiary education was designed to produce doctors, engineers and lawyers, and not much else”. (Marlowe, 2011)

Causes of revolution

The main force in the Libyan armed uprising has been the youths whose demands on the Gaddafi government included issues regarding changes to the education system. Aspects of these concerns, for instance, poorly qualified teachers and physical resources, were echoed in the research data collected this study; in addition, there are concerns about the rising numbers of unemployed graduates. This study evaluates some of these concerns and suggests ways in which they can be addressed; nevertheless, in the post-Gaddafi period, further research will have to be conducted to support the inevitable education reforms that will bring the education system in line with other international standards.

Higher education after the war : the urgent need.

Higher education in the post-Gaddafi period will face multiple challenges, specifically the overhaul of the higher education infrastructure, curriculum and research strategies in order to realign them with international university standards. Short and long term goals will have to be set to achieve these developments.

There is no doubt that ,in Libya, Education in general, and higher education in particular, needs to change and distance itself from political influences similar to those exercised by Gaddafi which impacted on the effective administration of the institutions. This view is echoed by Marlowe (2011)writing about the anticipated post-Gaddafi curriculum changes who explains that in the Gaddafi era “math and science were taught in a rather straightforward manner but, rebel official Hanal el-Gallal, tells Reuters, "History was completely distorted" in line with Qaddafi's paranoid, anti-Western world view”.

In the transition period, the government must look at the short, medium and long time developments. In the short term, it needs to examine the policies and systems for producing properly skilled graduates ready for the job market. In addition, apart from streamlining the records systems in the institutions, career

guidance should be one of the priority areas. University staff remuneration as well as training is another area that can be tackled in the first phase. For, until recently expatriate staff members were paid wages which were far higher than those received by local staff with similar qualifications. In the medium phase, data concerning university places needs to be matched with the increased population so that the universities build the capacity to enable them to accommodate all the qualified applicants.

The process of recalibrating the system to institute polities that are built on competencies not loyalties as it was in the Gaddafi era, where, for instance, the head of a university, regardless of qualifications, was appointed by the state President needs to be addressed immediately. In order to achieve this, the authority of the university administrators will have to be reinforced and streamlined so that there is no repeat of the 1980s when universities were controlled by students who, supported by elements in the government, threatened university staff forcing them to award their assessments high grades.

The study showed that there is a clear flaw in the relationship between the labour market and the outputs of higher education; however, there is no data base from which to build future plans to accommodate the output of higher education from various fields. Thus, the failure by higher education institutions to provide data

and other information on curriculum and disciplines complicates the selection process for many students who have no one to guide them to choose the most appropriate subject; this in turn forces them to choose their specialism at random.

The intermittent interference by government with university curricula meant that between 1980 and 2000, all universities and other education institutions abolished the English language departments. Today, although English Language as well as Information Technology is taught at most universities the students are not properly prepared which means that they have low levels of competence in these specialisms. This is confirmed by Amal Rhema and Iwona Milizewska (2010) who state: “In Libya, the level of educational technology awareness and even basic computer skills is generally low among educators in all types of higher education institutions, which leads to resistance in adopting ICT for teaching”. Thus, there is an urgent need for universities and faculty members to (re)train in both, subject areas so that they can either acquire or upgrade their skills to enable them to keep pace with modern developments. This would help them to effectively communicate and relate with the international community and benefit from (participate in) cutting-edge research. Nevertheless, even before the armed uprising there were a few initiatives, started through bilateral arrangements between UNESCO and the Libyan government that aimed at

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establishing research networks, for example, the Libyan Higher Education and Research Network (LHERN), established by UNESCO that will connect 149 university faculties. (UNESCO, 2005b) Such projects need to be renewed and fresh ones established. It is hoped that the findings presented here will contribute to that process.

Chapter 1.

INTRODUCTION

Preamble

Education in its widest sense – formal and informal is important in that it enhances the quality of life of the individuals and the community as a whole. Higher education (HE) further encourages critical views about everything in one's personal as well as societal environment. Therefore, the provision of Higher Education is significant in both developed and developing countries, and whilst it may differ from one country to another in terms of quality, quantity, facilities and outcomes, it nonetheless remains a priority since it is a key factor in a country's **development**. Moreover, it is responsible for knowledge progress, educating and teaching successive generations, and improving knowledge **and skills** that are needed to meet both labour market requirements, and for general cultural advancement. These diverse demands of Higher Education (HE) precipitate a controversial relationship between it and labour market requirements, as the question is posed as to what HE planners and policy makers should take into account in order to deal **with both the change of labour market requirements, and the cultural needs of a country** (Jimenez, 2007; Black, 2011).

Thus education has been considered central to Libya's development as reported by Al-Hawat (2003), in 1998, 38.2% of the Libyan national budget was allocated to investment in the national education sector; thereby indicating the belief that education is one of the most significant sectors in the economy. Indeed, it represents a major human capital investment on the part of both the State and of the individual. In recent decades, it can be seen clearly that the number of students who enter universities in Libya has increased noticeably as a result of the natural population increase, the establishment of new universities, and the increasing awareness of the value of HE.

According to the Libyan Ministry of Education (LME, 2008) statistics, the number of students who graduated from universities in Libya increased rapidly from 13,000 students in 1975, to 165,000 in 1999. Moreover, it was anticipated that by the end of 2008, the number of students enrolled in all the different fields of study available in Libya's universities would be 320,000, and whilst statistics are not officially available to confirm this because of the current state of war in the country, there is no reason to expect otherwise. This shows the significance of the university phase both for those who are planning to obtain a bachelor's degree in order to enter the labour market, and for those whose aim is to continue at postgraduate level. Clearly, there is a necessity for HE in order for students to

determine their future life. However, such determination on the part of young people in Libya does not necessarily mean a proper match between the numbers of graduates in particular specialisms and that of employment opportunities, and fact is that the rate of unemployment among graduates in some fields of study has increased noticeably over the past few years, although there are no official statistics to demonstrate the precise depth of the problem.

This situation emerges because of the change in the nature of the Libyan economy as it shifts away from the state sector to the private sector. Whilst this trend increases labour force demand, there is no clear policy that can absorb the flow of graduates from universities and other Higher Educational Institutions (HEIs). Such a move may indicate a necessity to **develop the** private sector for the absorption of graduates to prevent dependency on **the government** sector only for employment. Of course, the student who is highly educated is more likely to secure a well-paid job than one educated to a lower level. However, in specific subject areas such as Sociology, Physiology, Education, Geography and History, graduates find it difficult to obtain related employment, thereby leading to the increase in graduate unemployment.

Recently, official policy in respect of Libya's education has changed in both the form and content of the system, such that the main aim is to reduce the gap

between the secondary education level and the HE level through developing an educational model which can address the existing mismatch between the secondary education outcomes and the HE requirements. This, in turn, is intended to provide a qualified labour force for the Libyan market. Implicit in this policy shift is the notion that student choice in respect of the subject studied in HEIs cannot be without reference to the needs of the country.

This study aims to illuminate the process of student choice in this respect, so one focus of the research will be HE, but this can only be explored within the context of the recent changes in the secondary education system, as an understanding of these changes is essential to appreciate the dynamics involved in choosing a specialisation in HE.

In recent decades, the secondary education system in Libya has been comprehensive, with students being admitted to this level by the age of sixteen after finishing the primary and the preparatory levels. The length of secondary education was three years, and in the second year of this stage, a student had the right to choose between two options: either arts or science. After ending their secondary education, students were directed, by the Department of Evaluation in the Libyan Ministry of Education, to join the higher educational stage, depending on their achievement, performance and preferences.

In 2002 the secondary education system in Libya changed from a comprehensive educational model to a specialised educational model, which can be joined at the age of fifteen. Three years of study have been replaced by a four year programme which offers students several choices of courses, such as: Social Sciences, Engineering Sciences, and Physical Sciences, Economic Science, Law, and Religious Sciences, each comprising a variety of subjects. The main aim of the current model is to involve students in their chosen fields of study at an early stage; and the model's most important concern is to help students in this matter.

Although this change in the secondary school educational system is considered an attempt to provide a smoother transition for students from secondary school to HE, the decision-making process regarding the choice of the subject remains a controversial issue, especially with the students' lack of guidance or consultation regarding their choice of subject.

It is widely agreed that the transition from school to HE is a significant phase in education, marking an exciting period, which represents a crossroads in a student's life, shaping future prospects (Gangl, 2002). Hence, many people believe that students need to plan their education programmes and their future careers carefully, especially considering the cost in time and money and the need to secure a good outcome. Consequently, students have much to consider about

the selection of their field of study, their future careers, which university or institutes they will join, the university environment, the labour market requirements, and so on.

These issues can be perplexing for a student since it is a fact that although the education system in Libya has created several HE programmes, it clearly does not provide any sort of consultation or guidance for students in respect of how to select an appropriate educational programme, and thus, field of study (El Badry, 2006). This causes many students, for instance, to spend four years in a university without a clear aim or target. Furthermore, some find themselves either not satisfied by their choice or struggling to secure a job matching their qualifications. Despite the importance of research on this issue, however, in the context of Libya, the matter has not received sufficient attention. This focus on precisely this **phenomenon will** be one of the chief contributions to knowledge of the thesis. In adopting this position, the research will concentrate first on why students go to university and, **secondly,** on how they choose their subjects of study, with a specific emphasis on first year Libyan university students.

The Research Problem

It is a fact that Higher Education in Libya has seen significant progress and change in terms of the gender balance, together with increases in the number of graduate students as well as an increase in the number of participants in the learning process generally (Al-Hawat, 2003). Moreover, this change and progress has created several programmes, which give students numerous opportunities to choose their preferred subject. However, to date there are still some obstacles to student choice such as, the gap between the secondary education outcomes and the university international standard. This gap remains a concern as a result of different factors influencing it. For instance, as Alabedi (2007) points out, this gap is ascribed to ignorance of the abilities, aspirations and performance of students as well as to the mismatch between their real achievements and their desires. This emphasises the notion of the need for consultation and guidance for students in order to support them in the business of choosing the appropriate HE programme. In response to this need, the recent Libyan education policy has been redesigned and secondary education has been reformed, from a comprehensive model to a specialised model in order to shrink this gap and to strengthen the link between the secondary school outcomes and

the university requirements through widening the options for secondary school students.

However, although the recent secondary model provides an opportunity for students to be involved in their choice of academic specialisation, and attempts to engage students in focusing on a specific field of study at an earlier stage than previously, insufficient attention is given to how students choose their HE programme and how they select their specialism when they enter HE.

El Badry (2006) argues that students in the transition from school to university lack the educational consultation and psychological guidance that would help them in these choices, and that the end product of this void in educational support at such a crucial time is increased graduate unemployment.

Moreover, there is a random and unplanned increase in the rate of students who enrol in certain specific fields, notably Medicine. According to official statistics from the Ministry of Higher Education (LME, 2008), the total number of students who participated in the secondary education examinations in 2007-2008 was 93,584, and given the obsession amongst Libyan students for onward transfer to university courses, this number raises alarm bells. In fact, more than 78% of students leaving secondary education plan to progress HE, meaning that

around 72,996 students are enrolled on first year university programmes. Given this situation, certain questions arise, such as why and how do they decide to go to university?

Among these concerns, there is no doubt that choosing the field of the study has become a major decision for each student. Moreover, it remains the most significant and difficult decision in a student's academic life as a result of the variety of subjects on one side and the change in the future demands of the labour market on the other. Clearly, the field of study will affect the student's future job opportunities and long-term career.

A number of studies do argue quite sensibly, that funding, social class, and university reputation are significant factors in determining the choice process of the field of study in HE programmes (Nora and Cabrera, 2000; Moogan and Baron, 2003). However, these factors are insignificant in the case of Libya because of the Libyan social structure and because HE is free¹. Therefore, this study assumes that there are other influences on subject choice.

¹ The researcher is of the view that Higher Education in Libya will continue to be free for everyone.

According to Libyan education policy, the initial choice of subject occurs at the secondary school level, where there are six main areas as explained earlier. However, the final and important decision regarding the intended specialism occurs in the first year at a university, when students have the right to choose one from a variety of academic subjects.

A simple view of the output from Libyan HEIs suggests that before they go to university, many students lack the necessary knowledge and information to help them make the right decision about their future study and work. Many of them appear to rely totally on individual experience, friends' opinions, or follow their family preference, when they choose their specialism (El Badry (2006). However, in rural areas for instance, parents are not sufficiently educated to give meaningful advice, and hence are incapable of supporting their children in the decision-making process. Additionally, there is a contradiction in the case of many students between their ambitions and actual performance, leading to a conflict between their desire for a particular occupation, and their ability to reach such goal.

Moreover, the high aspirations of a huge number of Libyan students is fuelled by contemporary society elevated view of graduates, and naturally, the numbers transferring from the secondary stage to HE are increasing as students are

motivated to become upwardly mobile. In this respect, Abo Ghaniah (2004) reports that the percentage of people between 18-22 years in Libya's HEIs in 2002 was 60%.

The increased rate of enrolment has become a general phenomenon in the Arab World, resulting from the distribution of universities throughout both rural and urban areas. This, in a sense, gives a clear indication about the desire of students to avail themselves of opportunities for their educational development in HEIs (Smart, 2005).

The consensus within Libyan society that university graduates are perceived to be successful is indeed a problem since it motivates many students who essentially are not of the right calibre for HE, to transfer from the secondary stage to one of Libya's universities. And irrespective of the fact that a student in a vocational institution, for example, might stand a better chance of obtaining a job, the general trend is still for students to aim for HE because HE graduates are seen to have more prestige in society, whether employed or otherwise. Such transfers happen because students with lower marks are accepted for certain subjects such as Sociology or Psychology. Clearly, the number of students in HE programmes reflects, in some senses, the dominant culture and the perception

that HE has an economic value, and additionally provides those who have it with cultural and social status in Libyan society.

However, there is growing concern about the increase in unemployment among graduates and the imbalance between vocational and academic learning outcomes (Alabedi (2007)). Graduate unemployment, especially in a developing country, represents the potential for social upheaval and cultural change as the aspirations of young people have been heightened through the provision of HE and the expectation that once having passed a degree, a job is available. In the circumstance where this does not occur, young graduates can become disillusioned, alienated from the State², and quite possibly intent upon taking their skills and knowledge abroad, thereby robbing the home country of the HE investment made in them. Furthermore, the main factors affecting the student's choice of subject in university are still unclear, as was demonstrated by a small research study conducted by the author in 2005, aimed at discovering how students choose their fields of study. The sample in that case was forty final year university students in the Department of Sociology at one of the Libyan universities, and surprisingly, it was found that more than half of the students in

² The disillusionment with the political status quo was a significant factor in the uprising against the Gaddafi government.

this sample chose their subject merely to obtain a certificate, regardless of the quality of their study outcomes. Another 17% followed their parents' wishes, 21% based their decision on the availability of courses, and the remainder simply did not know why they had chosen their specialism. These findings, whilst basic, are nonetheless of interest since they leave so many questions unanswered.

Not least of those questions is the extent to which social forces interfere with fair enrolment, and in this respect, it must be noted that the Libyan education system is different from the vast majority of other such systems in terms of its admission process, assessment procedures, university requirements, and learning stages. This difference is manifested in the fact that whilst it is to be expected that a student with high grades has more options open at the HE stage, there is a substantial influence played by social, family, and tribal relationships in the university admission process. Anecdotally, these relationships can circumvent the official regulations for student admission, such that people can secure a place on a given course in a particular university when in reality, their preparation and capability for that course has not been proven through previous examination grades. Clearly, this situation is damaging to the HE system, to the aspirations of deserving students, and to the development of the country's human capital.

Rationale for the Research

The investments in free HE for all Libyan citizens takes a large slice of the national budget, and clearly returns are expected from this investment. Where the market can absorb all the graduates produced, those returns are demonstrably evident. However, where unemployment among graduates is apparent, and indeed a problem, it is imperative to explore the reasons for this, and having identified these, to further unpack them to identify the contributory factors. To date, no such attempt has been made, and hence, this study is justified since it will address a topic that has previously been ignored, thereby providing insights into the weaknesses of the present secondary/HE transfer preparation, and laying the ground for improvements in graduate employment rates.

Aim of the Research

Given the nature of the research problem and the need to explore the factors involved, this research aims to articulate and understand the choice process in respect of university specialism by students in Libya's HEIs. In particular, it focuses on the distribution of first year undergraduates, and analyses the influences in determining their fields of study.

Objectives of the research

From the above aim, three objectives are identified, as follows:

- To review the existing literature on the student choice in HE, to establish what choice models exist internationally.
- To determine the choice process in Libya's HE system.
- To identify policy implications in respect of an educational guidance system to support students in their choice process in different phases of their educational careers.

The Research Questions

In order to achieve the above objectives, it is necessary to ask certain research questions. The prime question is clearly: "What are the main factors influencing the choice process in respect of the field of study for first year undergraduates at Libyan universities?"

To this, the following sub-research questions are added:

Why do students choose to go to university?

Why do they choose their particular subject?

What are the general distribution of students in terms of gender and their field of study?

How do students make their decision when choosing their field of study?

Do students receive any guidance that facilitates their determination of their field of study?

What career plans do they have after graduation?

From where do students obtain their information regarding the fields of study available and the requirements of the future labour market?

To what extent does gender influence the choice of field of study, and why?

The Contribution of the research

Although there is a rich international literature concerning the issue of choice in HE, the case of Libya has not been researched. The study will make an original contribution to knowledge in as much as Libya's HE system, being free for all who wish to participate, does not resemble that of many other countries. Additionally, it will make a practical contribution in its identification of those factors influencing the choices made by first year **undergraduates**, and as a result of that information, it will also make a further academic contribution to the literature relating to graduate unemployment as it will show the cause and effect of poor decision-making at the crucial stage of choosing a specialism.

Methodology and Methods

A mixed methods approach is adopted in which the research sample is first year students in four different universities in Libya. Both questionnaire survey and interviews are used to secure fact and opinion regarding the mechanisms used by students to make their choice of subject. In this respect, four different subjects are considered so that comparisons can be made of the influences that are brought to bear in student choice. Underpinning the research instruments (questionnaire and interview protocol) is the theoretical framework obtained from a comprehensive literature review.

Structure of the Thesis

The thesis is presented in eight chapters structured as follows:

Chapter One: provides an introduction to the overall study, presenting a preamble, a statement of the research problem, a justification for pursuing the issue, the aim, objectives, research questions, intended contribution of the study, and proposed methodology.

Chapter Two details the context and structure of the Libyan education system.

Chapter Three presents a comprehensive review of the literature pertaining to student choice in Higher Education.

Chapter Four introduces a detailed explanation and justification for the methodology and methods employed in the study.

Chapter Five presents the findings from the quantitative data collected via the questionnaire survey.

Chapter Six presents the findings from the qualitative data gathered via the interview exercise and focus group discussion.

Chapter Seven provides a detailed discussion of all the data obtained in the light of the literature review presented in Chapter Three.

Chapter Eight draws the thesis to a conclusion, and identifies the policy implications for improved guidance to students entering Higher Education.

Chapter 2.

THE LIBYAN CONTEXT

Introduction

This chapter begins by providing a brief background to Libya, presenting its location, geographic boundaries, and population, as well as climate, language and religion. It then proceeds to highlight the historical development of the education system in Libya and explain its current structure and issues involved.

Geographical Location

Libya is an Arab country situated in North Africa. It is considered the fourth country in Africa in terms of area, totalling 1,775,000 square metres, and having a Mediterranean coastline of nearly 1,970 kilometres. Libya is bordered by Tunisia and Algeria to the west, Niger and Chad to the south, and Egypt and Sudan to the east. More than 90% of its land is desert or semi-desert. Geographically, Libya can roughly be divided into three areas, green mountains, a flat desert, and coastline. The desert in the south and the Mediterranean Sea in the north influence the climate in Libya. In the south, the weather is hot and dry in summer, and cold in the winter. In the north, it has a Mediterranean climate.



Figure 2-1: Map of Libya

Historical Background

Libyan history has four periods: ancient, Islamic, the Ottoman period, and modern times. Ancient Libyan history extends for thousands of years. Over the course of its ancient history, archaeological evidence indicates that Libya was the place of several civilisations, such as the Greek, Roman and Phoenician. The remains of these civilisations are spread out in different parts of the country, such as the ancient city of Tripoli, the cities of Leptis Magna (now LebDAH), Sabratha and **Cyrene** (now Shahat). Each is characterised by its attractive location and

astounding archaeology, and is considered famous as a tourist attraction and a site of historic and cultural interest.

The Islamic history of Libya dates back to the Islamic conquest in the era of the second Caliph *Omar bin Alkhatib*, when the Muslim conquerors entered Libya in 642 AD through Cyrenaica State. By 663 AD, the three main states of Libya - Cyrenaica, Tripolitania and Fezzan, were under Muslim control.

The third era in Libyan history is that of the Ottoman Empire from 1551-1911, a period of around three and half centuries when Libya was governed by the Ottoman Empire. This ended in 1911 when the Italian colonial power occupied Libya for **four decades** before its independence in 1951.

The fourth period is that of modern Libya, following independence from Italian colonisation on 24 December 1951. Between 1951 and 1969, following independence, the political system in Libya was based on a constitutional hereditary monarchy headed by King Idris, and the State was known as the United Libyan Kingdom. In September 1969, following *Al Fateh* revolution, the political system changed to what is known as people's authority, which meant that each of all the population over the age of 18, had the right to participate in

the political process through what is known as a republic congress, the place where political decisions were made.

Demographic and Population Distribution in Modern Libya

According to the most recent census statistics in 2007, Libya's population is estimated at about 6,036,914 (Libyan Higher Committee for Statistics and Census, 2007) and growth is occurring at the rate of 2%. The population is not evenly distributed throughout the country, and a marked increase in population is seen in the capital and some other cities at the expense of rural areas. Libya is considered a youthful country where 35% of the population is under the age of fifteen. (Sullivan 2008). In terms of the ratio of sexes, the statistics predict that this will be changing in favour of females. Libyan society consists of several ethnicities: 97% of the population is Arab and Berber, the other 3% includes Greeks, Maltese, Italians, Egyptians, Pakistanis, Turks, Indians, Tunisians, and black Africans.

Language and Religion

The religion of Islam is considered one of the greatest influences upon Libyan society. It has a significant impact on Libyan daily life, and is consulted as a constitution in cases of conflict and social problems at both formal and non-

formal levels. Since the entry of Islam in North Africa, in the period of the second Caliph Omar bin Al khatab in 642 AD, almost all the population in Libya has adhered to the Sunni branch of Islam. Arabic, the language of the **Quran**, became a dominant language in the whole country, and the main language for the majority of the people. Furthermore, it is the main official language of writing in education and daily formal affairs. It is the language of instruction in school and universities. However, the form of language in daily use, especially in informal communication, represents that region from which the people come in Libyan society. At the same time, there is the Berber language, known as Amazighi, used among the minority of Berbers, and especially in the Berber areas.

The Economic Context

Oil is the backbone of the Libyan economy. It has transformed Libya from a poor desert land with a very low standard of living, to one of the most important petroleum producers in the world. The main natural resources in Libya are petroleum and natural gas. The Libyan economy depends primarily upon revenues from oil. In the mid-seventies, the political system in Libya adopted the socialist economy, which devolves property to the State. Many attempts have been made to diversify sources of income, so that the reliance on oil is reduced. However, most of the agricultural and industrial projects implemented at a cost

of billions of Libyan Dinars, have been unsuccessful for various reasons, including change government **policy and**, hence Libya relies almost entirely on imported goods from overseas.

It is worth noting that, in the last few years there has been a significant move towards a private market sector. Since this shift, different enterprises have been established in different sectors, including the education sector. Libya also enjoys other natural resources such as long stretches of beach, the desert, the green mountains, good weather, and other tourist attractions, which have the potential for a tourism industry. Unfortunately, however, the infrastructure in Libya, especially in rural areas, is insufficient to meet the requirements of international tourism (read **Oxford Business Group2008**).

Education in Libya

Given the lack of references and sources of accurate information and data, it is a challenge to write about the history of Libyan education over the past centuries. The historical viewpoint is very important as it reflects the prevailing ideological and political attitudes in the education system of each era. Moreover, it is important to refer to the past to understand the present, and predict the future.

The Libyan education system, as elsewhere, was influenced by the political and socio-economic context. Therefore, historically, it has witnessed many challenges and changes as a result of successive political regimes. Hence, a brief introduction to these different periods will reveal the education process in previous decades, with a focus on Higher Education, such that its character is clarified during these developmental stages. Obeidi (2001) suggests dividing the educational history of Libya into five main eras, namely the Ottoman period (1551-1911), the Italian occupation (1911-1951), British and French administrations (1943-1951), the period of monarchy (1951-1969), and the period of the revolution. The next part will shed light briefly on each era.

The Ottoman Era (1551-1911)

The Ottoman era is considered the extended period of what is known as the Islamic succession. This was dominated by its Islamic character, and the education system was totally focused on teaching Islamic culture, religious instruction and Quranic studies. Evidence of this period is seen in the *Katateeb* and *Zawaia* (traditional classrooms where instructor and pupils sat on the floor) and in several surviving mosques from that time. Through the general architecture, shapes and designs, the Islamic environment of that time is still

reflected, thereby confirming the character of the curriculum as one that was inherently Islamic (Obeidi, 2001).

The pattern of education in the Ottoman period can be summarised in three main points. First, it is clear that education was derived from religious instruction, and was an obvious attempt to disseminate Islamic culture through the educational process to the entire society. Secondly, the educational process lacked the appropriate facilities, for example the curriculum was inadequate and there was an absence of qualified and trained teachers. Thirdly, Higher Education was confined to the elite, who were able to fund and send their children to study abroad in Astana in Istanbul, Al-Azhar in Egypt, or Al-Zaituna in Tunisia.

The Italian Era (1911-1943)

The most important feature of this period was the emergence of formal education, in schools, in the main cities in Libya. This was considered an extension of the educational activity that prevailed in the previous period. However, informal education continued to exist in the form of the *Katateeb* and *Zawaia*, but as this kind of education depended completely on modest local individual efforts in terms of administration and funds, it had the drawback of being under-invested. Nonetheless, informal education continued locally during this era and played a significant role in resisting the Italian occupation. For

example, in the mosques, the religious leaders and teachers continuously informed the people that it was their duty to liberate the country from the Italians.

In fact, as observed by Obeidi (2001), formal free education was used as a ploy by the colonisers, aimed essentially at achieving dominance of the Italian language and culture. In such circumstances, there was a dominant domestic perception that individuals who studied in the Italian schools would lose their religion and identity, and consequently the Italian language was not rooted in Libyan society in the same way that French was in Tunisia and Algeria. Nonetheless, the colonial objective was the same.

The British and French Administration (1943-1951)

This period witnessed an increased awareness of education in general, and the beginning of vocational education. Opportunities for females were enhanced during this administration, such that females were presented with more chances to go to school, and to become teachers.

The Monarchy (1951-1969)

The discovery of oil in this period impacted upon life bringing great change and the foundations of modern HE in the form of government institutions, such as

universities and colleges, can be traced to this time. In addition, according to Law No.5 in 1952, education became compulsory and free for everybody in Libya. Furthermore, in the same period, HE came to exist in Libya for the first time with the establishment of two universities in the main cities, Benghazi and Tripoli.

Other higher institutions and colleges were also established, such as the Advanced Technology College built in 1961 with financial assistance from UNESCO and, as noted by Farley (1971), 1962 witnessed the birth of the first Islamic University. The overall view, despite the high illiteracy rate during this period, was that noticeable progress in the construction of schools and increased student enrolment rate occurred, as can be seen in Table 2.1. Indeed, the total number of schools increased from 208 in 1950-51 to 751 in 1960-61, and, for the same years student numbers increased from 32,741 to 146,725

Table 2-1: Number of Students and Schools in the Period 1950-1958

Period	Kindergarten and elementary		Preparatory and secondary		Professional		Total	
	Schools	Students	School	Students	School	Students	Schools	Students
1950-1951	194	32115	4	300	10	326	208	32741
1951-1952	202	36949	4	402	10	568	216	37919
1952-1953	228	42500	5	558	13	776	246	43834
1953-1954	226	48278	7	712	13	1093	246	50083
1954-1955	319	57001	11	957	13	1339	343	59297
1955-1956	382	65831	18	3755	13	1659	413	71245
1956-1957	425	78724	28	4293	13	2076	466	85093
1957-1958	446	91632	43	5682	16	2175	505	99489
1958-1959	487	99388	61	6639	19	2389	567	108416
1959-1960	559	113694	75	9186	20	2737	654	125617
1960-1961	632	130077	95	12320	24	4328	751	146725
Total	4100	796189	351	44804	164	19466	4615	860459

In fact, oil revenues in this period helped overcome financial obstacles and contributed to improving education. Nonetheless, irrespective of the upturn in the education sector in various fields in this period, some barriers remained such as limited classroom capacity, and overcrowding, as well as lack of local skills in teaching at all levels.

The 1969 Revolution

The agenda and slogans adopted for this era, proclaimed by *Al Fateh* Revolution, such as the Cultural Revolution and Social Revolution, as well as the ideological orientation had a genuine impact on the education process in Libya; and, to a

great extent, the education system has been the subject of attention since 1969 from different ideological aspects. In contrast to previous periods, which suffered from a lack of documentation and sources, this period witnessed activity in this respect, which has contributed towards the successful evolution of Libya's education sector.

Prior to the Revolution, instability of management policy was one of the most noticeable obstacles facing education in Libya, but thereafter, the education system received significant attention in terms of expenditure and reform to bring implementation into harmony with the stated policy objectives. It is worth noting that this period witnessed two major educational changes, the first being Law No.95 in 1975 which made education compulsory for everybody up to the age of fifteen, instituted gender equality in educational opportunities, and simultaneously increased the number of schools and HEIs to cope with these advancements.

The second change resulted from the trend towards *Arabisation* by the State, and was manifested in the 1982 policy of *Arabisation* of the State curriculum, despite any thorough study of the impact this would have. This policy required the curriculum to be delivered in Arabic, the removal of the English language as a curriculum subject, and the closure of sections and colleges that taught foreign

languages in universities. This impacted negatively on the progress of education, in general, and created an obvious scientific isolation for both researchers and those interested in continuing their study abroad, where English language is a requirement.

The Libyan Education System

In the early 1980s, Libya introduced a policy of industrialisation, which led to hundreds of manufacturing plants being established, and the accompanying demand for technicians and professional labour. As a result, Libyan policy-makers reformed the education system and established new training programmes and practical courses within that system to supply the labour market with much-needed highly skilled labour.

Additionally, the contemporary education system witnessed several changes in its content, as a reflection of the role Libya was attempting to play in the African and Arab nationalist arenas. Therefore, in this sense, the **schoolbooks emphasis** the notion of united Arab and African peoples.

Philosophy and Aims

It is a fact that education without goals and philosophy is meaningless. More importantly, the goals established should be achievable, viable and based on the

actual needs of social and economic life. The provision of free education demonstrates that the target of education, over and above the acquisition of **knowledge, which** is inherently good, is the development of human resources for the long term. This can be observed from the main objectives of education policy in Libya, which are derived from religious, socio-cultural, and ideological principles, and which are simultaneously formulated according to the philosophy of Libyan social and political life. These have determined not only the structure of education, but also the curriculum and **textbooks.**

The aims of education policy in Libya, in more detail, are as follows: (Report on the Development of Education in Libya, 2004):

- *Spreading and emphasising the principles of the third universal world theory so as to create a new public culture based on society's origins and the abilities of its citizens to embody a new world culture.*
- *The educational system should contribute in the construction of society, economically, socially and culturally, by focusing on the development of the individual's skills and abilities, to ensure his/her positive and active contribution in the progressive movement of the society.*

- *Ensure the raising of an enlightened generation, aware of its rights and duties, capable of handling its responsibilities by developing its self-confidence and ability of expression.*
- *Education should lead to a deep feeling for the Arabic origin, and its ability to interact, and develop the feeling of belonging to this origin, which makes the individual proud, and so work hard to achieve unity among its people by:*
 - 1- *The development of feelings of national loyalty and fateful connection and co-operation with the Arab nation.*
 - 2- *Emphasizing the grace of the Arab Islamic cultural heritage, so as to be a motive for progress in the enrichment of human civilization.*
- *Developing the feeling of geographical belonging to the African continent, of which the Arab world forms a part.*
- *The individual should be free to choose his/her field of study, as a means to develop his/her skills and talents so as to practise some job or vocation or to continue with his/her education.*
- *The educational system should be open for all, in all types of specialization, which will result in the transference between the various educational paths.*
- *The educational system after the basic education level should lead to specialized job paths that prepare graduates to become part of the labour force and*

production, and to have the ability to interact socially, or continue with the path of specialization.

- *The educational system should lead to training of effective technical and vocational cadres, trained to make use of scientific planning methods, and modern advanced technical means and instruments, to develop knowledge and to discover new means and ways of production.*
- *Technical and vocational education should be a basic part of the educational components at all levels, especially the intermediate education level.*
- *The educational system should ensure the promotion of the balanced construction of society, in terms of cultural patterns and technical means.*
- *Arabic language should be the language of education at all levels, and so promote the uniqueness of this language, and aim for its development.*
- *Teaching the Holy Quran and the study of Quranic science, and encourage the talented in this field, which will contribute in the spread of the reading and teaching of the Holy Quran.*
- *Total elimination of alphabetical illiteracy, and combating vocational and technological illiteracy among all individuals in society of working age, and to spread the technological culture on a wide scale, using all available means.*
- *The educational system should contribute to strengthening and developing Libya's scientific, research and cultural relations with various countries around*

the world, and with various universities, and science and research centres in these countries.

- *Working hard to revolutionise society in the cultural, social and economic domains, and in information flow and means of communication, and in the use of information and modern knowledge.*
- *The educational system should contribute in the rapid rise of standards of human development in the society.*

Source: A national report presented to the international conference on education Geneva 2004

Expenditure on the Education Sector

Since the discovery of oil, financial support in itself has never been a problem for the education sector in Libya. This is evident in the volume of expenditure on this sector in previous decades. According to official statistics, the education sector was a priority among the national economy sectors. For example, spending on this sector almost doubled in two years, the financial allocations in 1971 being 17.9 million Libyan Dinars, and 35.1 million Dinars in 1972 (Political, Economic and Social Changes **from 1969-1999**).

Furthermore, even when the Libyan economy was affected in the mid-eighties by political issues such as the First Gulf War and the UN sanctions on Libya, as

well as the consequent fluctuation of oil prices, there were no obstacles to the financing of the education sector. Funding did decline to 17.8 million Libyan Dinars in 1993, but rose to 216.1 million Libyan Dinars in 2002 (Otman and Karlberg, 2006). Undoubtedly, this continued expenditure and investment is visible in the construction of schools, universities and institutions, but there is still a shortage of facilities, laboratories, and well-trained staff.

The Structure of the Education System³

The current education system in Libya (Figure 2) is regulated by three different legal State **bodies:** the General People's Committee of Higher Education (GPCHE), the General People's Committee of General Education (GPCGE), and the General People's Committee for Manpower, Training and Operations (GPCMTO). Each of these covers different programmes and includes a number of schools, **centres, or** institutions.

³ The post-Gaddafi structure is yet to be determined. However, it is likely to retain these core elements.

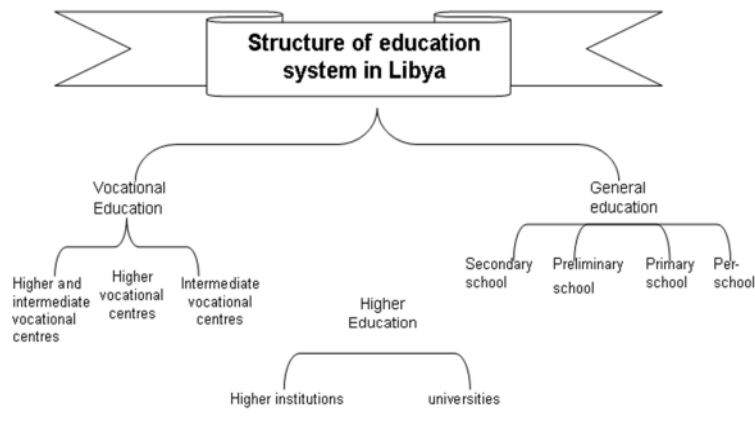


Figure 2-2: Structure of Libyan Education System

As can be seen, there are three key stages in the structure of Libyan education: general education, vocational education, and higher education. In addition, there is a private sector, which is known as community education. A comprehensive view of this division is now provided.

General Education

According to Article 1 of Act No. 95 of 1975, primary and secondary schooling is compulsory for both males and females. General education consists of three different stages: kindergarten, basic education, and secondary education; all these stages are under the supervision of the General People’s Committee of General Education.

Kindergarten

The government recognised the importance of pre-school education, and the role of this stage in encouraging a child to be involved in a new educational environment, to develop their educational capability, and to become involved in new social activity. This represents the first stage in the Libyan education ladder. Children are admitted at the age of four, and the stage lasts for two years, i.e. from age four to six. Pre-school education was included as a basic stage in Libyan education in the early 1980s, and currently it is provided by private and State organisations. It has become a well-established and widespread programme in the whole country, with responsibility for:

- Providing suitable conditions for a child's growth and personality development.
- Guiding the child's spontaneous activities into becoming intentional and systematic behaviour.
- Building up desired norms, values and behavioural habits in the child's personality.
- Stirring the child's curiosity and helping him notice the natural and social aspects around him.
- Enriching the child's intelligence and developing his educational and learning skills.

- Developing and improving the child's linguistic abilities and easing his access to the social and material environment.
- Developing the emotional, behavioural and moral dimensions in the child's personality.
- Preparing the child for the basic education level. (Libyan National Commission for Education, Culture and Sciences, 2004:14)

Basic Education

This is the first pillar in the formal education system in Libya and, in most parts of the country, it is a co-education programme. It tends to be a general phase, and helps a student to acquire fundamental academic knowledge of the main subjects such as Islamic studies, Arabic language, mathematics, history, geography and sciences. The curriculum in this stage mainly depends on theoretical issues. Previously, basic education was divided into two separate stages, namely elementary and preliminary education. Elementary education was six years long, covering ages six to twelve, whilst preliminary education lasted for three years, from the age of 12. In 1982, these two stages were incorporated within the basic education stage in accordance with structural adjustments in the education system. The new stage includes the age group 6-15 years, and lasts for nine years. The assessment examination, recently centralised in each individual city,

takes place in the ninth year. A student is then given a certificate of completion in respect of the Basic Education period. It is worth noting that this stage is equivalent to the GCSE in the British education system. Recently, this has become an essential stage in the new structure of the Libyan education system, due to its close association with secondary education, and because access to secondary education is based entirely on the outcome of this stage.

Intermediate Education: Secondary Education

Secondary education is a crucial phase, since it seeks to prepare a student for Higher Education. This importance is recognised as one of the most important priorities of the educational structure that has been developing since 1982. In fact, significant change has occurred in secondary education, in an attempt to keep pace with rapid changes occasioned by globalisation and the information revolution, and to satisfy the demand for a specialised work force. This change resulted in secondary education being divided into two main branches: vocational secondary education and specialised secondary education, each of which differs in terms of the subordination of supervision and their specific, individual objectives, which are now discussed.

The Specialised Secondary Schools

In the past, there was only one form of secondary education, known as public secondary education. This had the noticeable shortcoming that it depended on the theoretical approach at the expense of the practical. In some subjects meaning that there was lack of practice, even where it was vital, such as in Medicine, Biology, Chemistry, and related subjects. In contrast, the recently developed secondary education in both branches aims to take into account the necessity of practical application of knowledge in different fields at an early stage. This, in turn, provides skilled graduate students with practical experience for the labour market. Furthermore, it has led to expanded access to a wide variety of secondary education programmes, which are helping to remedy the shortage of a technically qualified workforce, and are aimed at those thinking of leaving school at the level of secondary education and joining the labour market.

Specialised secondary education accommodates the 16-20 age group, being four years long, the first two of which are general, and the last two specialised. It consists of six main fields, each of which offers a programme from a broad spectrum of sub-fields. The general requirement of admission to this stage is completion of the basic education stage and obtaining a specified grade. It is

worth noting that each specialisation in this level has a specific requirement that a student should achieve in order to be accepted.

This specialised secondary education form was introduced in 1982 in response to changes in many aspects of life, in order to raise the effectiveness of the graduates of these high schools. However, whilst the decision to reform the secondary education system was made in 1982, actual implementation started in 2003 for different reasons, such as the curriculum not being ready, a shortage of trained teachers, and the demographic distribution of Libyan society, which made it difficult to have such schools everywhere in the country.

By 2003, the number of students involved in 1,100 specialised secondary schools around the country reached 194,490, and these were enrolled in 17 different courses. Table 2.2 shows the specialisations of these schools:

Table 2-2: Distribution of the Main Subjects and their Offshoots in Secondary Education

No	Specialised secondary school	Specialisation Sectors			
1	Life Science	Medical Science	Agricultural Science	*	*
2	Basic Science	Biology – Chemistry	Physics- Math	Computer sciences	*
3	Engineering Science	Building	Electricity & Electronic	Machines	Natural Resources
4	Economical Science	Administrative Science	Finance Science & Banking	Information & statistics	*
5	Social Science	Arabic Language	Religious Science	English Language	Social Science
6	Arts & Media	Fine & Practical Arts	Medial Art	*	*

Source: Ministry of Libyan Higher Education

Vocational Education

Since the early 1970s, Libya has tried to rapidly industrialise through the establishment of factories, 163 of these in the period 1970-1988. The volume of expenditure on this sector increased dramatically from 15 million Libyan Dinars in 1972 to reach 128.7 million Libyan Dinars in 1988. In parallel, Libya adopted an educational policy to meet the needs of these factories in terms of a qualified workforce; hence, the urgent demand for vocational education, which aimed to

offer a wide range of vocational specialisation opportunities, was recognised, and an attempt made to satisfy it.

Vocational education in Libya is provided at three levels: basic, intermediate and higher vocational education. Its purpose is to provide skills for specific occupations, which can serve the Libyan market and meet demand for technically qualified workers, and the current vocational education programme covers a wide range of skills. All vocational education was overseen by the General People’s Committee for Manpower, Training and Operations. Table 2.3 shows the number of centres at each level.

Table 2-3: Number of Vocational Institutions at Each Level

Higher training centres	Intermediate and Higher training centres	Intermediate Training centres	Basic training centres	Total
68	8	430	251	757

Source: Libyan Information and Documentation Authority (2005)

Basic Vocational Education: Vocational education has been expanded and developed to cover all levels from basic to higher level. The basic level is mainly to help those with poor educational qualifications. As can be seen from Table 2.3, there are 251 basic centres around the country, and these mainly provide

numerous short-term study programmes for one or two years. They can be joined after primary school, or by those leaving school at basic education level. Most of these centres offer a set of basic skills in various areas, and in most cases, they are separated by gender, especially in the rural districts. Official data shows that the number of candidates in this stage of education has reached 22,382 in the study year 2007-2008.

Secondary Vocational Education: Secondary vocational level has been a focus of attention in the current educational reform, and given priority in the new structure of education. It is a three-year programme designed to be a reliable form of education and training, aimed at preparing qualified and skilled students for the future labour market. Moreover, due to the recognition of the noticeable increase in the enrolment rate in HE, this programme gives students alternative opportunities to join the labour market. The number of students in secondary vocational education reached 59,318 students (GPCMTO 2008) distributed over 345 secondary vocational schools in specific disciplines. (See appendix)

The Higher Education System

Education is important in creating and spreading the knowledge and broadening the individual's horizon. Thus it improves an individual's life and development

generally. Higher education in Libya, as elsewhere, has been a priority in economic and social development programmes. Its appearance has in fact, been relatively recent, with the first HE institution being established in 1956, since which time, several objectives have been set as a result of recognition of the vital role which HE can play in developing Libyan society. This has been represented in serious efforts to increase student enrolment in HE, as well as in securing equal opportunities of access to HE for males and females. The government has sought to expand horizontally in the establishment of universities and higher education institutions, (HEIs).

Libyan HE is provided through more than 28 different universities, and technical centres (HEIs), and comprises a combination of academic, vocational and professional programmes. The HE sector is mainly under State supervision and control, with a modest input from the private sector in terms of the supervision of some schools and institutions. Universities are responsible for delivering academic programmes, whereas the professional and vocational programmes are offered at different higher educational institutions and training centres. The following sub-sections clarify the situation.

Universities

Universities can be found in both the public and private sectors. The first is regulated by the State, while the private 'self-accrediting' type is controlled by private individuals, and is known as community education. The focus in this chapter will be on public universities for two reasons; firstly, they are authorised, well established and recognised programmes; and secondly, the data and information are, to some extent, readily available. By 2004, the number of universities reached 17, whereas previously there were only 7. This increase was a response to the rising rate of student enrolment in HE.

However, one year later in 2005, the number of universities was reduced to 13, reflecting hasty decision-making and unplanned policy. Table 2.4 shows details of these 13 universities, including the number of students enrolled in 2007-2008.

Table 2-4: Libya’s Current Universities and Enrolment Figures

No	University	Date of Establishment	District	Number of students		Total
				Libyan	Non Libyan	
1	<i>Al-Fateh University</i>	1956	Tripoli	47200	3300	50500
2	<i>University of Garyhounis</i>	1955	Benghazi	52251	1175	53426
3	<i>7th of April University</i>	1988	El-Zawia	35154	1050	36204
4	<i>Omar El-Mokhtar University</i>	1991	Al-Baida	25318	563	25881
5	<i>El-Tahadi University</i>	1992	Sirt	5451	282	5733
6	<i>Al-Mergib University</i>	2001	Al-Khoms	30314	619	30933
7	<i>Al-Jabal Al Gharbi</i>	1985	Gharian	18418	199	18617
8	<i>7th of October University</i>	1983	Misratah	18821	127	18948
9	<i>The Open University</i>	1987	Tripoli	1818	42	1860
10	<i>Naser University</i>	1991	Tripoli	432	885	1317
11	<i>The Arab Medical University</i>	1984	Benghazi	11500	400	11900
12	<i>Al-Asmaria University</i>	1995	Zliten	3378	15	3393
13	<i>Sabha University</i>	1976	Sabha	14749	407	15156

Source: Libyan Ministry of Higher Education (2008)

The duration of study at the university stage is for a minimum of three or four years, in most universities, and for a maximum of six years in medical universities. This stage leads to the award of a Bachelor’s degree. In terms of size, universities in Libya are two kinds. The first are known as main universities; most main universities are divided into faculties, and sub-divided into departments. Currently there are 438 departments distributed over 74 faculties, offering the majority of fields of study. The second kind are known as

department universities, where there are 152 departments covering 15 scientific specialisations.

Universities in Libya are the main providers of tertiary education, offering places of study for more than 308,208 students in a wide range of disciplines.

Teaching Staff at Universities

Until the late 1980s, Libya relied on expatriates of different nationalities to staff its universities since there were insufficient Libyan nationals with advanced degrees to do this. In recognition of the need to Libyanise in this respect, the State has funded many people to undertake higher degrees abroad to qualify them to teach various disciplines in Libyan universities, with the result that the percentage of Libyan university staff members increased from 54.5% in 2002 to 75.68% in 2008. The increase in the **number of Libyans** holding advanced degrees (Masters and Doctorates) has led to reduced dependence on foreign staff members in university education. However, a national report (2004) documents three main concerns about choosing staff for HE positions in Libya, as follows:

- 1) Many university staff members are not trained to teach, despite their specialised and distinguished scientific skills.

2) There is a lack of standard criteria for selecting teaching staff members, and a need for greater numbers of teachers due to the increasing number of students and universities, and the different study systems used by different faculties (i.e. the semester and the academic year systems). All of this has led to the existence of some unqualified university teaching staff.

3) The absence of fixed contracting standards with foreign teaching staff members has opened a door for unqualified teachers to creep into the university teaching system.

Higher Vocational Training Centres

Higher vocational training is a form of further education programme. In the late 1980s, this became an active and efficient programme, integrated into HE, with independent supervision by the General People's Committee of Manpower, Training and Operations. Students who successfully complete vocational secondary education may seek to be admitted into further education. It is considered an extension of secondary vocational education. Considerable attention has been paid to this programme, in order to widen vocational education programmes in Libya, in response to the changing needs of the labour market. There are 68 higher vocational centres all over the country. These centres cover three main fields of specialisation:

- 1) Inclusive vocational centres
- 2) Specialisation centres
- 3) Trainers' centres

A diploma certificate is awarded to a trainee after completing the three year training programme in these centres. In the academic year 2002-2003, the number of enrolled trainees reached 40,207 (GPCMTO, 2008). Vocational training offers more than 19 different specialisations, with emphasis on improving practical training in a variety of specialisations for youths who seek to enhance their practical experience.

Professional Higher Educational Institutions

These are part of the HE system in Libya. Before 1984, the Libyan education lacked vocational and professional training programmes, but **now six different professional higher institutions under the supervision of the General Committee of Higher Education provide these.** These institutions cover a variety of areas, Engineering in particular, such as Civil Engineering, Electrical Engineering and Mechanical Engineering, Electronic Engineering, Medical sciences, Industrial Engineering, and Aviation science. A three-year programme was adopted in these institutions, leading to a higher diploma in Engineering. A candidate can

apply for one extra year for the award of a Bachelor's degree. The programme aims to supply the labour market with experts and consultants in their fields.

Community Education

Community education refers to the private sector in education. It is an alternative kind of education programme established in the 1990s with the aim to:

- 1) Provide an opportunity for students to complete their studies according to their wishes, their potential and orientation.
- 2) Spread the spirit of competition among institutions to reflect positively on the quality of performance.

The number of institutions in this sector has increased to 188 in 2002 in different areas of the country. However, as a result of the poor quality of education provided, and the general mis-management found within the sector, it has been the subject of criticism from several groups in Libyan society. This sector has been acknowledged as the shelter for students who failed in a public university, or who for other circumstances, had not met the required grade for admission to public higher education. Given the novelty, community education still suffers from several obstacles to its effective implementation, not least of which is the

societal belief that it delivers poor quality education, and hence the majority of people have no confidence in it.

Graduate Studies

There are two alternatives for Libyans wishing to enter HE, these are to study at home or abroad. In respect of domestic provision, both public and semi-private institutions are involved in delivering graduate programmes, and PhD and Master's Degree programmes are available in some fields of study, especially the humanities, in both systems. The Master's degree is usually delivered via taught courses with a dissertation, whereas the PhD programme relies fully on the research approach. However, in spite of the existence of postgraduate programmes in Libyan universities, the preference is mainly for graduate students to secure their advanced qualifications abroad. Indeed, recent official statistics (2008) indicate that there are more than 7,536 students studying abroad in different specialisations at different degree levels, and Table 2.5 clarifies the situation in this respect.

CHAPTER TWO: THE LIBYAN CONTEXT

Table 2-5: Distribution of Undergraduate and Postgraduate Students in Foreign Universities

Country	Special Degree	PHD Degree	MSC Degree	BSc Dgree	Total
Uk	45	850	488	118	1501
Egypt	1	404	104	52	561
Germany	110	117	109	6	342
America	4	179	146	4	333
Canada	91	80	69	9	249
France	3	120	32	3	158
Malaysia	0	63	23	5	91
Australia	1	43	28	0	72
Morocco	0	52	0	0	52
Syria	0	47	0	0	47
Jordon	0	30	9	3	42
Sudan	0	34	2	0	36
India	1	10	24	0	35
Czech Rep	0	29	4	0	33
Byelorussia	0	20	1	0	21
Sweden	3	13	5	0	21
Serbia	0	15	0	0	15
Tunisia	0	13	2	0	15
Italy	0	9	6	0	15
Ireland	1	8	3	0	12
Slovakia	0	9	2	0	11
Poland	1	9	0	1	11
Belgium	0	5	4	1	10
Ukraine	0	3	0	6	9
Hungary	0	9	0	0	9
China	0	9	0	0	9
Switzerland	2	2	3	2	9
Algeria	0	8	0	0	8
South Africa	0	5	2	1	8
Turkey	0	4	2	0	6
Spain	1	3	1	0	5
Austria	0	2	0	2	4
Bulgaria	0	2	0	1	3
Greece	0	1	0	2	3
Holland	0	2	1	0	3
Emirates	0	1	0	1	2
Fenland	1	1	0	0	2
Lebanon	0	0	1	0	1
Nigeria	0	0	1	0	1
Russia	0	0	1	0	1
Cyprus	0	1	0	0	1
Venezuela	0	1	0	0	1

Source: Libyan Ministry of Higher Education (2008)

Access to University Education

Study at the tertiary education level in Libya depends on the completion of secondary school. A programme of study in a university differs from one faculty to another in different aspects, such as length of study, nature of study, field of study, and admission requirements. It is a fact that the admissions process, standards of admission and quality assurance are the key obstacles to the effective implementation of Libya's HE, despite efforts made in this regard. Among these elements, from the student's viewpoint, are the criteria for admission which remain the most complex. Given the nature of this study, the focus will only be on *the process of choice of field of study*. The procedure for choosing the field of study is clearly problematic, and begins with the length of the process, which is divided into three steps. Initially, a student will choose a broad area of his or her interest at the basic educational stage. The second step is at the secondary school, and the final step occurs at the HE level, when a student takes the last decision about the future field of study.

On the other hand, despite the fact that the admission requirements process is based on completion of secondary school, it is practically an overlapping issue, in terms of the guidance given in choosing the field of study and the admission process. Moreover, statistical evidence indicates that there is a clear enrolment

increase of students in some fields at the expense of others. This has led the State to shoulder the burden of responsibility to avoid this issue. Hence, the State mandates a method to be followed by students, according to specific criteria, in order to enter a particular university. This method is mainly based on compromise, and attempts to harmonise the student's desire, the capacity of the chosen university, and the State's public interest. It builds on the distribution of disciplines according to the needs of the labour market, in order to avoid the problem of rising unemployment in specific fields. However, when it comes to actual practice, the compatibility of these elements is a difficult equation.

The current procedure of admission is that the State works on what is known as a placement system. This authorises the State to place a student according to specific grades obtained, and for this to operate the State has drawn up specific grades for each specialisation or field of study. For instance, 85% and above, for those who wish to study Medicine, and 75% to 85% for the Engineering field. Theoretically, these criteria are adhered to, but for different reasons a student can obtain a place in Medicine with a low grade one year, and yet the following year, a student with higher grades is not accepted. This creates confusion. Moreover, this faltering policy actually reflects negatively on the entire educational process and students' decisions regarding the field of study in particular.

Challenge to Education in Libya

The education system in Libya has been and is still subject to the State interest⁴, and for this reason, and the frequent changes in the structure and content of the curriculum, it has been subject to widespread criticism from society. However, a rigorous evaluation of the education system in Libya is a complex task and requires a huge team effort, not least because the obstacles and challenges are numerous. Some additional ones to those already mentioned are:

- 1) The absence of long-term educational planning
- 2) Rapid change in the plans implemented from year to year, such as establishing new universities in 2004 and abolishing them in 2006
- 3) Administrative instability at all levels of decision-making reflecting on the educational process.
- 4) Hasty and unstudied decisions, such as the decision to abolish the teaching and learning of English, which reflected negatively on the progress of the education process at all Libyan educational levels.

⁴ The Transitional Council is likely to take a close interest in reforming and modernising the system, and the obstacles noted.

- 5) The absence of guidance and direction for students at important stages has reflected negatively on their study performance and achievement as well as their future career.
- 6) Imbalance between the dramatic increase of student enrolment in higher education, and the educational supplementary instruments, and unsuitable infrastructure of the educational process.

Summary

It can be seen that Libya has undergone several periods of occupation by foreign forces, but that essentially Islamic principles have underpinned, and continue to underpin the Libyan culture, and hence, its traditions. The issue of education in Libya has been discussed, revealing that historically, this has been subject to many challenges and changes as a result of successive political regimes. The Libyan education system has been discussed in detail and the great advancements in this connection since the 1969 Revolution have been demonstrated by policies such as compulsory and free basic education for all Libyan citizens, the growth in Libya's HE sector, and the maximisation of opportunities for females. It has been shown how the HE sector includes the vocational education system, and how, for many years, expatriates dominated the staffing quotient in universities. Finally, the admission process to HE has been introduced, from which it was

apparent that the difficulties inherent within this process cause problems regarding a student's ability to study what s/he really wants. That said, it has also been highlighted that in all its management of the HE sector, the State has attempted to produce an output that would satisfy the demands of the Libyan labour market, although it is noted that because of the many challenges within the choice system, such demands are not guaranteed to be met.

The next chapter presents a detailed review of the literature relating to choice models in respect of choice of subject in HE, and opens a wider discussion of this issue.

Chapter 3.

THE LITERATURE REVIEW

Introduction

This chapter reviews the relevant literature and theories on factors that affect student choice of university subjects in Libya. The purpose of such a literature review is to consider what investigations other researchers have made in respect of this topic, the methodologies and methods that they have used, and their findings. This will avoid repetition of the work already undertaken in the field, identify the gaps in research knowledge, and show how this current study situates itself and contribute towards filling such gaps. In addition, the review of the literature will enable the development of a conceptual framework to guide the data collection and the analysis process. The chapter is comprised of three sections: **Firstly**, it discusses the choice of subject in Libyan higher education and the historical perspectives associated with this. **Secondly**, before addressing the human, cultural and social capital theories that frame the research, it considers choice models in respect of university courses. These theories allow me to examine the rationale that informs the students' subject choices. In this study, human capital represents the economic perspective (gender and the labour

market), social capital **represents the** social perspective (parental, gender, friends and networks), and cultural capital is related to the cultural and religious dimension. Finally, the chapter addresses the choice of subject and student satisfaction. These various perspectives combine to provide the theoretical basis for the study.

Choice of Subject in Libyan Higher Education: Historical Perspectives

Choice is a broad term which has been the subject of attention among various researchers in business, psychology, and sociology. Such attention has been found largely in Western countries, and in **particular, Britain** (Ball *et al.*, 2000; Oliveira and Zanchi, 2004; White, 2007). **In** addition to these studies, there has been a recent growth of research interest in the matter of student choice and how it affects Higher Education (HE) in developing countries, for example, Saudi Arabia (**Yaquob, 1991; Ismail, 2003**), and Lebanon (Abouchedid, 2007). However, each of these areas has its own focus when exploring this concept. For instance, economically, choice is perceived from the supplier and customer dimensions. In educational provision, this dimension cannot be ignored since the choice of subject is regarded as a route to the labour market. Moreover, the discourse on choice in HEI focuses on different aspects such as, choice of programme, and choice of college or university. In this study, the concern is with

choice of subject at university, which is a critical issue, since as noted by Ozga and Sukhnandan (1997:708): “poor choice can lead to consumer dissatisfaction and impact negatively on motivation and academic success, affecting progression rates”. Other writers, for instance Yorke (1999), recommend that more attention should be paid to academic choice specifically where success relates to a student’s ambition in relation to their actual academic ability. Such attention is warranted, since poor decisions at the point of entry have been linked to high drop-out rates in the first year of university.

Since the mid-1980s, Libya has witnessed many economic, social, and cultural changes which have, in turn, led to changes in Libyan HE policies and, as a result the education curricula have changed to introduce and accommodate diverse subjects. The impact of these changes has created confusion for students seeking to choose subject specialisms that suit their ability and choice. Despite these changes however, no study has been conducted to evaluate the issues concerning the way Libyan students decide and choose major subjects to study at higher education institutions. Nevertheless, subject choice is significant in Libya because there is a general social and cultural belief that some disciplines, such as Engineering, Computer Studies, and English, not only guarantee graduates future jobs, but also they are also **admirable. Therefore**, by studying these programmes,

students gain prestige. The choice of subject is made more complex by the multiple influences upon the process as well as the importance of specific choices in an individual life. Further, recent developments in the labour market have led to an increase in the demand for highly-skilled graduates in specific areas, for example in Information Technology, (IT) and those with good English language skills. This has marginalised unskilled Libyans in the job market as the number of opportunities available to them has diminished.

The expansion of the HE sector in Libya is relatively recent, beginning essentially in the third quarter of the twentieth century. Previously, the availability of choice in HE was very limited, both in the lack of abundance and diversity of disciplines, and in the absence of a sufficient number of HEIs and universities to meet student demand. Such limitations were aggravated by the inequality of opportunities according to gender. Until the end of the 1970s, there were only two universities in the entire country, Al Fateh in Tripoli, with ten academic disciplines, and Gharyounis in Benghazi, which had eight disciplines. Moreover, the unplanned recent policy, which decided on the random establishment of new universities in rural areas where there are insufficient facilities, has forced students to stay in their villages, hence limiting their options

and choices. This is bad because such universities were established without proper facilities or planning.

Models of Subject Choice in Higher Education

Scholars engaged in studying the link between the labour market and choices of study for post-secondary education have produced different patterns of relationships depending upon whether the country is developing or advanced, the economic and social conditions, and the state of HE. As illustrated by Li, Morgan and Ding (2008:688) in their study of the inter-relationship between the “expansion of higher education and the labour market” in China, these relationships have influenced the development of multiple models to explain the patterns. Elsewhere, in their article ‘The Labour Market for graduates in China’ (2011), Li, Morgan and Ding argue that in contexts where ‘the increments in and the stock of the higher education population are small’, graduates are able to ‘secure satisfactory jobs more easily’. However, when the higher education provision is expanded, hence producing more graduates, the later find problems securing ‘jobs with good terms and conditions’ (2011: 93). In an earlier study, “The expansion of higher education, employment and over-education in China”, which identifies Human Capital (development) and Social Capital models as the basis for their analysis, Li *et al* (2008) attempt to define the connections between

continuing education, post-school education, and lifelong learning. As well as Li *et al*, other scholars, for instance, Hossler *et al* (1989) believe that various models, which can be applied to this study, may be categorised as follows: the economic model, the social model, and the cultural capital model. In their discussion of the sociological model, which draws on multiple social and individual factors, Hossler *et al* (1989) state that the socialisation processes, which are themselves influenced by family environment, peer groups, and type of schools attended inform student choice. Indeed, similar to students in the West, Libyan students' academic performance, academic motivation, and future ambitions are important factors in their determination of what subjects to follow. In addition, family education and professional background, gender, and friends are influential in this respect.

The literature review will consequently discuss three models of subject choice in HE: the Economic Model which relates to Human Capital; the Social Capital Model which intersects with family, friends and networks; and the Cultural Capital Model which concentrates on the religious dimension, cultural values and norms. While, as we see below, the study considers that different forms of capital, significantly overlap.

Human Capital and the Economic Model

Human capital is the aggregate of the skills of members of a community and it may include their education, health, and intelligence. Further, it refers to the abilities, knowledge and skills that each individual contributes to well-being. In this context, improving the economic returns of specific subject choices is an important feature of Libyan **Human** capital since implied here are the personal traits affect each individual's contribution to economic production (Healy *et al.*,2001). According to Coleman (1997:100): "**Human** capital is created by changes in persons that bring about skills and capabilities that make them able to **act in new ways**" for, unlike social capital, it is: "embodied in the skills and knowledge acquired by the individual over time"; therefore, it is less tangible (Coleman, 1997:101). Hence, **Human** capital is related to the earning power and productivity of students especially after graduation, and it is relevant to this study because human beings, specifically students, are important to developments in their communities. Indeed, after graduation, students in Libya will increase the health and wealth of their families and the community for, arguably, although it is intangible, **their Human** Capital would be exchanged for monetary gain.

Several Western scholars, including Hossler *et al* (1989), have explained the relationship between education and **Human Capital** by developing the economic

model that predominantly focuses on the cost of post-secondary education. In Libya, since education is free, various aspects of the Economic Model, specifically relating to the cost of university education, may not be directly relevant to the study of students' post-secondary education. However, the post-choice aspects concerning career earnings, which relate to the notion of satisfaction, are essential to this study; for instance, students may enrol on a computer course because they want to earn a high income after graduation. Exponents of the Economic Model (for example, Hossler *et al*, 1999), support this view, emphasising the importance of the influence on student choice of expected financial gains and the related benefits of specific courses in comparison with other alternatives. Earlier researchers, for instance, Fuller *et al* (1982), found that students' choices were affected by possible loss of earnings in the end (if they went straight into employment after secondary education), loss of earnings in the short term (by going to university), the cost of university education, and other financial implications. This finding is underlined by Harmon *et al* (2003), who argue that individuals make optimum investments in education, thus working out the financial gains and losses over the extra period that they would spend in HE. The most important aspect of this model is its identification of the relevance of financial benefit in terms of career opportunities and future earnings. Accordingly, education enhances one's earning capacity and

productivity because of the acquired skills it affords students. Indeed, in his discussion of social capital and continuing education in the UK, Morgan (2008) observes that since a person's social capital includes skills and networks, and these are likely to form part of the university student's human capital, that student will be at an advantage when he joins the labour market. As well as research that focuses on developed countries, some scholars have attempted to explain the students' choice model in developing countries. For example, Alex van der Merwe (2010) whose paper, "Does Human Capital Theory Account for Individual Higher Education Choice?" focuses on Africa, attempts to evaluate how human capital informs South African students' decisions to enrol in higher education university courses. He argues that the decision to enrol in university courses may be seen as "a pure investment" (p, 83) one that increases the students' potential access to highly paid jobs, hence, transforming his life (and that of his family).

Noticeably, an important factor that influences the success of the students in education and life employment opportunities is the parents' social capital (Reay, 2004). Thus, as Reay argues, the lack of social capital, significantly affects the students' efforts to be successful in education and, in turn increase their human capital. In taking this view, Reay, similar to Putman (2000) and Glaeser (2001)

seems to suggest that, just as social capital relates to the length of time an individual spends in school, there is a strong correlation between Human capital and education. Indeed, Galeser (2001:17) proposes that the processes of training in social skills and etiquette are embedded in formal education. This way, educational institutions, for instance schools, training colleges and universities are places where individuals are enabled to create or expand their social networks, which in turn encourage the development and reception of various ideas, cultures and values; thus increasing the student's human capital. (Coleman, 1999) Consequently, as Healy *et al.*, (2001) have indicated, the probability of people with better formal education securing jobs and getting better financial remuneration is higher than for those who have lower education qualifications.

Students make subject choices for a variety of reasons, for instance, to improve their individual and family economic conditions or to change their social status. Their decisions on subject are likely to depend on whether taking that specific specialism will be to their advantage. In many cases, as demonstrated by the data from my field study, some of these students will have no previous connections, such as friends or siblings, with the subject; and therefore, they take on the course without any social capital. In this context, their peers at the university,

with whom they make friendships and form a community, will act as their source of human capital resource. Nevertheless, when Libyan students make decisions on their subject choice they have high expectations of either gaining better employment after graduation or, in the case of medical doctors accessing further professional training. Following their decision to study a subject, usually based on their economic capital, students may choose either to study at one of the coastal city universities or an up country university. Students in the former category will decide on a university that has a good teaching and learning environment and is highly regarded nationally and internationally because this will guarantee the prospects of securing a well-paying job and possible post graduate study abroad. These factors, among others, such as location, will affect the students' human capital development. In the context, a country like Libya where people live in closed clan communities, an opportunity to travel and study away from one's local community could be identified as forms of both human and social capital since it exposes them to other subcultures and cosmopolitan experiences useful in the labour market.

In their studies of the Saudi Arabian education context, Yaquob (1991) and Ismail (2003) have explored the relationship between education, the labour market, and employment. Yaquob's study is based on data which confirms the

existence of a clear imbalance between supply and demand in respect of graduates in the Kingdom of Saudi Arabia, and therefore, the weakness of the contribution of graduate education to the service of their country. Yaquob (1991) and Ismail (2003) both adopted a descriptive approach, using the questionnaire as a tool to collect data and information to demonstrate the imbalance between supply and demand of female college graduates of literature. Yaquob's research is valuable because, among other things, it explored the growing number of graduates in certain disciplines at the expense of others. For example, a growth in numbers studying psychology and education was accompanied by a decrease in history, geography, and Arabic. Additionally, he demonstrated that social factors, which work as motives and constraints, are among the most important motives for the selection of study specialisation, such as foreign language subjects. The common perspective of society and family regarding the nature of female work is that since females can apply what they have studied in these disciplines in their future lives, literary specialisations are more appropriate for females than for men. This view still exists in Libya, although it is more prevalent in rural than in urban areas.

Ismail's study (2003) focuses on the issue of unsuitability between university courses and labour market demands and using official statistics it demonstrates

that the rate of unemployment reached 9.10% among men and 26.3% among females. Ismail argues that the product of HEI's in the Kingdom of Saudi Arabia is unable to meet the needs of the labour market requirements. Therefore, there is an increase in the rate of unemployment among graduates. In trying to identify the extent to which HE outcomes could meet the needs of the Saudi labour market, Ismail (2003) used a randomly selected sample consisting of three categories: university students (46), university officials (31), and private sector managers (26), and tested several hypotheses by reference to their opinions. Some of these are related to this current study, and are detailed as follows:

- 1- There are sufficient numbers of universities and colleges in Saudi Arabia to accommodate high school graduates.
- 2- Saudi universities and colleges have the efficiency required to prepare graduates for the labour market.
- 3- Graduates from high school possess the appropriate capacity to choose the proper field of study at the university stage.

The main findings were, first, the agreement of the three respondent groups on the incapability of students to choose a course of study appropriate to their abilities; and secondly, the weakness of the practical side within HEIs results

from an over-emphasis of theoretical aspects, which in turn has led to graduates possessing competencies that are inconsistent with labour market requirements.

Gender and the Labour Market

Educating females and equipping them with multiple skills is a significant investment in human capital upon which the economic growth of a country is dependant (Hynes and Richardson, 2007). As Cooray (2009:4) suggests, female education is: “an important foundation for creating the next generation of human capital”. He posits that this is significantly fundamental because: “mothers are seen as crucial in determining the education and health of their children”. In the past thirty years, Libya has achieved acceptable progress in its investment in human capital, for instance, in child health, the protection of females, and guarantees for gender equality. An increase in the rate of enrolment of females in HE has meant a significant decrease in the percentage of illiteracy. Accordingly, in spite of the official statistics, which show one of the highest rates of unemployment among educated females (World Bank, 2004a) worldwide, one of the most significant social and economic development indicators in Libya is the growing participation of females in the labour market. Cultural capital has a role to play in influencing the foregoing contrasting measure of females in employment since, in other Arab countries, for instance in Jordan, the majority of

unemployed females are university certificates holders, while in Egypt, two thirds of unemployed females only have secondary education level (World Bank, 2004a). In Libya, a great shift has occurred in the position of females in the workforce, rising from 18.6% in 1980 to 24.7% in 2003 (World Bank, 2008). Nevertheless, questions about whether a woman should work or not, and what might be classed as a suitable place for a woman, are still asked. In African and Arab countries, it is culturally rooted that the man is the main breadwinner of the family; hence, the argument that Libyan females should not work, but be full-time housewives. Supporters of this trend do not oppose education for females but they believe that the role of a woman is to care for her husband and her home and to raise their children. However, the World Bank Report (2011: xix) that: "...the housework burden on females ... limits their time for market work [and] allows them to engage only in productive activities compatible with their household duties" undermines the foregoing view. The recent war in Libya is likely to lead to a change in the role of females in society for, whereas so far there are no accurate numbers of war fatalities, a significant proportion of these will be married men. Inevitably, while there are clear and strong relationships and solidarity among families in Libya, widows will seek a private source of income that can help them to survive.

The Social Model: Parent, Gender, Friends and Networks

This section is not an attempt to discuss social capital measurement, nor does it provide a comprehensive explanation of social capital. Instead, it deals with the concept in relation to its significance and value for HE and the choice of subject in university in particular. Social capital has been variously defined by contemporary scholars, but as Lin *et al* (2006), Field (2005), and Bonifazi *et al* (2008) note, similar to other concepts, its definition has been subjected to numerous modifications and criticism. Bourdieu (1986) originally described social capital as a personal skill or asset that gets its value from the power of the social networks and resources that are available to people depending on their position status in the social network. He notes, however, that these networks, if strategically positioned, may use the power to their advantage to maintain their place in society. On the other hand, while Coleman (1994) defines social capital as a variety of entities that serve individuals within their communities, Putnam (2000) states that social capital refers to relations between individuals in the context of social networks that bind them, which creates reciprocity and leads to confidence among them. According to Putnam (1993:167), social capital includes the: “.... features of social organization, such as trust, norms, and networks, which can improve the efficiency of society by facilitating coordinated actions”. In another study, Putnam (2002) explains that social capital should be

understood as the complex network or dense web of networks that are supported by family and community-shared values that create trust and co-operation amongst these people, which in turn influence the student's learning process. However, Morgan (2008) argues that, if Putnam's meaning is to be adopted, it is important that Coleman's definition is used to complement it for, as Coleman (1997:81) explains, social capital is: "... defined by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors within the structure". In an earlier study, Coleman (1988) described social capital as the creation of human capital, states that family and social capital is interrelated with people in a family or community (institution), therefore, those who are likely to benefit from it are the interested individuals and their community. Implicitly, all of them have to work together and make their work more profitable. Coleman argues that both the family and community social capital should engender a supportive and unified environment that helps the student to benefit from education. Nevertheless, Dika and Singh (2002:34) seem to be accurate when they suggest that Coleman's theory of social capital is more relevant to communities similar to Libya that are: "... characterised by strict, traditional values, rigorous discipline, and hierarchical order and control". Further, as Morgan (2008b) asserts, Coleman's categorisation of social capital

should be read to include ‘bonds or links’, (p 36) ‘bridges’ (p 36) and ‘linkages’, (p 36) aspects evident in various developing world communities. For, while Morgan (2008 ‘bonds and links’ (p 36) are ‘based on a sense of common identity’ (p 36) and bridges which are ‘connections that extend beyond such fundamental shared identities’ (p 36) are horizontal, linkages are vertical and ‘connect people or groups higher up or lower down the social structure’ (p 36).

Post-secondary education, similar to continuing education is a “resource for social capital development and active citizenship” and it “stimulates interest and provides knowledge and skills that enable people to participate confidently and effectively”. Morgan *et al* (2008:39) Since education is one way of maintain and enhancing a person’s social capital, there is an intimate relationship between social capital and education, which influences the understanding of the educational process in multiple contexts. Choice in education in education is a social process (Bush and Bell, 2002) and as Bourdieu (1998) suggests, education is part of social and cultural capital and a young person’s progression to university education is a way of meeting the shared values of the family and the community. As such, progression to HE increases the opportunity for enhancing social capital since this resource is embedded in social relationships that flourish in that environment.

These relationships are beneficial at individual, family, network, and society levels, hence re-confirming and enhancing social capital, which subsequently facilitates the exchange of relations, and strengthens confidence in processes and institutions in the entire society. In addition, as it grows, social capital increases its efficiency and speed for, it creates a strong relationship between individuals and society to allow the development of institutional channels, formal and informal, to discuss the common objectives and interests. Social capital is based on social interaction between individuals, groups and institutions thus, the first construction of social capital is formed within the family and it develops in the merger of the community and its institutions. The profit of social capital, which may be associated with invisible profit or returns, according to [Lin et al \(2002:21\)](#), is seen in four aspects: “reducing the ‘transaction cost’; influencing ‘the decision within organisation members’; creating an environment in which social relation can give credit to individuals; gaining information through or within the relations built in their societies”. For instance, in Libya the value of social capital is seen in the individual’s ability to make educational choices and to facilitate job opportunities. Today, educational choice has become more complex than ever due to the variety of subjects available in universities; this has implicitly expanded the boundaries of educational choices far beyond the knowledge of the local community.

From the foregoing views, the debate about social capital and the choice of specialization is inter-related, overlapping, and extensive, and as the following three sub-sections demonstrate, there are strong dimensions to it in the form of parental, gender, and cultural/religious influence.

The Parental Dimension

According to Bourdieu (1990), through the process of family socialisation children are enabled to take over their parent's cultural capital. The parents' cultural capital, including their social and economic status, educational qualifications, knowledge of the education system and social capital, will determine the children's socialisation; which in turn determines their destiny. Similarly, Coleman (1988) argues that social capital is strengthened and grows with the child because of the intimate relationship with parents; therefore, this relation may effectively shape the child's future educational choice, when parents through their closer relationship, encourage or guide a child to a certain decision. With the passage of time, this effect will diminish or even be replaced by the impact of friends, university, other social networking, and an increase in the sense of self and independence. In Libya, the participation of parents in the educational process starts from the first stages of the child's education and continues through each stage of his/her development. However, the rate of

parental participation decreases with the child's progress in the latter stages of education, occurring when many factors, for instance, the influence of a child's friends, relatives and teachers lead to more independence and self-reliance in decision-making. This can mark a time of conflict since, according to Dunnewind (2003), the benefits of parental involvement are cumulative rather than being limited to early educational stages, and extend to the advanced stages of the educational process, inevitably, impinging upon the child's personal wishes that direct desired individual choices. In this respect, it is notable that the changes that have occurred in Libya since the late 1980s have not only raised the level of education among a large cross-section of society, but also prompted interest from parents making them participate in their children's educational process even more than previously. And in relation to these changes, two important dimensions have developed that directly or indirectly affect the student's educational process, particularly the choice of post-secondary courses. These two dimensions are the improved educational level of parents such that they themselves are more informed and aware and conscious of the opportunities for their children, and the nature of their work, which gives them first-hand experience of the employment market.

This experience of the employment market is instrumental in influencing parental thinking about their children's educational choices; as highlighted by Several researchers including Leppel *et al.* (2001) and Somers *et al.* (2002) Parental occupation plays an important role in influencing students' post-secondary aspirations. For instance, Leppel *et al* (2001:378) state that having a: "... parent with the prestige associated with a professional or executive occupation may influence a student's choice of major". Furthermore, as demonstrated by Hansen, (1997), Van de Werfhorst et al (2001) Dryler (1998), Davies and Guppy (1997) in their studies in Norway, the Netherlands, Sweden and the US, similar to Libya, children normally identify with subjects that relate to their parents' occupation or area of study. Parental aspirations for their children's education match their own employment success, and therefore have a significant role to play in influencing the subject choice of the children. However, whereas the researchers working in the West (Hansen, 1997; Davies and Guppy; 1997; Van de Werfhorst *et al*, 2001) have identified parents' economic and cultural stratification as important aspects influencing students' subject choices, this is not entirely applicable in Libya since society is not similarly structured. Nonetheless, in the Libyan context, the role of culture is important for, as Davies and Guppy (1997) and Van de Werfhorst *et al* (2001) argue, children choose their field of study in response to the cultural and

economic status of the family in which they live; therefore, it is a family rather than an individual decision. Arguably, neither the educational nor the cultural dimensions of homes can be ignored, and as Uerz *et al* (1999) argue, when children grow up in a cultured environment, among cultured parents who enjoy reading and other cultural activities, they will be more inclined to literary studies.

Perhaps the most important obstacle faced by parents in choosing a course for their children is understanding their real ability and suitability to study a certain specialism. Unlike wealth, knowledge is not inherited, and whilst a parent may be a doctor, there is no reason why a child should follow the same academic path, or be capable of doing so. This problem is compounded by poor communication between HEIs and parents. Indeed, Bourdieu (1984:124) states that: "... [a] group's chances of appropriating any given class of rare assets ... depend partly on its capacity for the specific appropriation, defined by economic, cultural and social capital it can deploy in order to appropriate materially or symbolically the assets in question". Breen and Goldthorpe's (1997) view that, as far as the working classes are concerned, the social status of the parents may motivate students to take the prestigious specialisms further confirm this.

Depending on their status, whether working class or educated elites, females play a crucial role in the transmission of cultural capital specifically because of their

emotional support that includes: "... qualities such as love and affection, expenditure of time, attention, care and concern" (O'Brien and Ó Fathaigh, 2005:13). The proponents of social learning theory and cognitive development theory both argue that children regard their parents as role models; thus, as mothers, females have a strong role to play in developing that capital that directs a child's choice down a certain path instead of another. (Dryler, 1998)

Social Class:

Many scholars promoting home-school relations (Lareau, 1989; Ramsay, Harold, Hawk, Poskitt, Marriot, and Stracha, 1992; Epstein, 1987) recognize the concept of shared responsibilities between home and school in children's educational process. However, Coleman (1987) indicates that many parents, especially those of high social economic status, concentrate on their jobs and income, leaving the task of socialization to school and ignoring the importance of their inputs: such as attitudes, effort, and conception of self. Coleman shows that these are the necessary elements in the rearing process and he calls them "social capital". Parents, whatever social economic status they belong to, who are aware of the need to be involved at home to educate children, do provide children with the sort of social capital helping to lead to the children's success in school (Lareau, 1989). Uneducated parents who devote much of the time to the concern of their

children's school performance demonstrate a high level of social capital at home (Coleman, 1987).

Coleman asserts that today, many parents who have high levels of human capital that increases educational attainment are also likely to have decreasing investments of social capital in their children. This is evidenced by the duration of their presence at home and the duration of parent-child communication concerning the children's social, academic and personal development. Therefore, he suggests that the amount of social capital created will continuously become less and less as family and community relationship become gradually alienated. Coleman (1990), cited in Ho (1999a), demonstrates that the creation of social capital is determined by the degree of parent-child communication, intimacy and parents' ideologies. He is of the view that unless there is an intimate parent-child relationship, physical and human capital possessed by parents cannot be used by the children. In the school context, the children's social position can be reflected in their academic achievement, their educational plans, their test scores and their attendance. Since schools always tend to disseminate the value and behaviour patterns of middle-class in their instructional process (Lareau, 1989; Ballantine, 1993) by adopting particular language structures with which students of higher social economic status have already been familiarized at home, cultural

experiences, as reiterated by Lareau (1989), can help facilitate students' adjustment to school and their academic performance. Thus, social class differences can aid or impede students to comply with the request of the school. Bourdieu (1987) defines this family advantage as "cultural capital". Though as explained above, the amount of social capital does not necessarily increase in proportion to the social backgrounds of the families, the cultural capital of different social economic status families do affect the input of social capital. Lareau (1989) concludes that more cultural resources are available in the family of high social economic status and they are associated with educational success.

The Gender Dimension

Subject choice is influenced by gender, and societal expectations in this connection may determine an individual's education routes. The difference between females and boys in education has been the focus of many researchers, who have explored it from different angles, for example, educational attainment (McDonald and Jessel, 1992) and career aspirations (Al Hosni, 2011; Chew *et al*, 1995). Students, influenced by gender and societal expectations may make subject choices that reflect their understanding of the expectations of society. (Ball, 1981) Additionally, teachers, as Smith and Tomlinson's (1989) study demonstrated, may unconsciously collude with society to influence the students'

choices by encouraging them to choose subjects that relate to their perceptions of their students' social backgrounds. Inversely, the students' social background may influence their attainment in given subjects. In their studies, several scholars including Oakes (1990), (Beyer, 1999), Bradley (2000), and Leathwood *et al* (2009) have demonstrated that females are more inclined to study the literary disciplines and social sciences. This may not be a reflection of females's ability or a lack of achievement, but a lack of interest in other disciplines in the early stages of education (Moreno and Muller, 1999). Moreover, as studies conducted by various scholars, for instance, Daun and Hansson (2006), Hibbett and Meager (2003), and Al Hosni (2011) confirm, females perform better in school than boys do; hence, the explanation relating to females' choices of specific subjects remains a controversial debate. Nevertheless, if student choice is based on their presumed benefits, one may argue that in the Libyan context both boys and females choose their subjects according to their normative roles in society. Inevitably, because religion plays a key part in this society these roles are more fixed than in Western societies or even secular societies.

The issue of the nature of the social role for both sexes was investigated by Eagly (1987) who, as well as stating that men are inclined to be competitive while females tend to nurture, argued that depending on the society, different

'normative male and female' roles influenced their choice of a course. While previously this has prevailed in the Arab society, change is occurring in the lives of Arab females. According to Sonbol (2003), there are two key common features of such change: the evolution in the participation rates of females in HE and the increase of the community's awareness of the need for educated females in the globalised world. For instance, in Saudi Arabia, official HE statistics published in 2005 show a substantial shift in the increase not only of the number of female undergraduates and postgraduates, but also in the number of females enrolled in HE; they are approximately twice the number of males in both, in Saudi universities and international institutions (local and international). Elsewhere, Alubaidy (2003: 23) states, "traditional views, which claim the incapability of females' political participation, still exist especially in some region from Libya". Ironically, as he observes, the political system of tokenism under Muamar Gaddafi within which he aimed to appease females, allowed them to achieve higher leadership positions up to ministerial level.

In Libya and other Middle Eastern countries, the high level of educational attainment among females has changed and the enrolment of females on courses in which they were forbidden to participate for many years is on the increase. Thus, in the light of the increasing enrolment of females in HE, gender

segregation in specific subject choices may not be justified. Studies carried out in the UK by Wikeley and Stables (1999), Francis (2000), Hendley *et al* (1996), and Colley and Comber (2003) among others, demonstrates a decline in the influences of gender difference on subject choice. For example, Hendley *et al* (1996), and Colley and Comber's (2003) focus on History and Geography subjects shows that while earlier evidence demonstrated an insignificant difference between males and females choosing these subjects, more recent studies demonstrate that females have more preference for Geography, while males favour History.

The Social Network Dimension

Education and career choices depend on effective access to accurate and essential information. If students are considered consumers, they are, by extension, investors who have a right to information before making their decisions. In the West, applicants to HE rely mainly on the admissions services offices that provide essential information about the subject of choice via hardcopy prospectuses, university websites, and student admission tutors. Major information avenues that influence student choice include university staff who may be contacted directly by telephone, email and other forms of written

communication. This contrasts with the situation in Libya where information is mainly informal and inadequate.

According to El-Amine (2003), students who lack information and guidance in secondary school and university are not able to make correct choices in respect of their major subjects and subsequently careers. In Libya, for instance, there are no leaflets, books, or professionals to guide and support students in this process whereas in the UK information is readily available in prospectuses, from academic counsellors, through open days for prospective students, and within the media generally. Morgan *et al* (1999) explain that the availability of information about academic courses is one of the most influential factors in the student choice process; however, as previously noted, formal information sources are scarce in Libya and social relationships provide the best avenue for securing such information.

In a discussion of networks as sources of information, social capital is regarded as a resource embedded in social relationships, and that such relationships are beneficial to individuals and society alike. The lack of information and guidance for students in high school and university does not enable students to select the right choice of academic major and subsequent careers. Such choice should be made in full knowledge of the content of subjects available in HE, and the

information provided in this respect should be both accurate and timely, such that decisions can be made in advance and careers can be properly planned. In countries where these channels of communication are not in evidence, the social network represents a way of discovering contemporary information for, as Brehm and Rahn (1997) suggest, such powerful networks have a beneficial interest. The relationships made through social networks play a crucial role in enabling individuals to overcome obstacles placed by family members or their society during the choice-making process. As well as being a source of social capital, they may operate as an information resource. In rural areas (where two of the case study universities in the present research are located), social networks are of a special nature in the sense that relationships are based on tribes and blood kinships, which are robust and powerful due to the tightly-knit nature of the communities. Social capital therefore, generates social relations internally, to the family and relatives, as well externally, to the extended family, within institutions and society in general. Moreover, although family relationships operate less formally than external relationships, both enhance the efficiency and effectiveness of job search. As noted by various scholars, individuals create social capital through the relationships that they build and the networks they inherit from, among others, family members and peers, and through them, they are able to solve problems and create new opportunities (Dasgupta and

Serageldin, 2000; Bourdieu, 1986; Putnam, 2000). Individuals can draw on their social networks, that is, the people they know, to secure jobs, a factor that reflects the value of social capital; thus, what gives them the advantage is not their education qualifications but the people they know. (Portes, 1998)

Where social capital is formed on a religious basis the implication is that the shared loyalty existing among network members is based on obligations that control the extent to which an individual's preference is overcome by the preferences of others. This underlying attitude among network members leads to a situation where high quality information is circulated which allows members to make effective choices in many decision-making scenarios. In their study, Stone *et al* (2003: 23) provide evidence showing the ability of social networks to provide key employment information. They demonstrate that individuals who lack useful social connections find it difficult to access valuable employment opportunities while others with multiple connections are able to find placements in professional jobs. Bentolila *et al* (2003) who underline the importance of the connection between social networks and career choice further confirm this phenomenon.

The Cultural Capital and Religious Dimension

In his study, Bourdieu (1986) identifies three forms of cultural capital. First, embodied cultural capital, which is inherited or internalised; secondly, during secondly that, which is gained from institutions, for example, colleges or universities; thirdly, objectified cultural capital, which is represented in the form of cultural goods, for example, musical instruments and paintings. While institutionalised cultural capital is gained through the process of socialisation and may not be transmitted to other people, both embodied and objectified cultural capital can be passed on.

In the context of Occidental secular society, Smidt (2003) argues that religious beliefs and values can still determine an individual's goals and desires; for instance, as Miller (1998) suggests, religion is a powerful cultural institution that influences American life. In this section, I will demonstrate how religion is embedded in cultural capital and how it affects student choice. Religion may function as a motivating factor for people to engage with the community, and as Smidt (2003: 266) states: "... there is considerable evidence that indicates that religion is a major generator of social capital". Emile Durkheim argues that religion is not only a reality in all societies but an important instrument for solidarity, since it unites members of a community, while Braun *et al* (2000) cite

Max Weber who suggested that religion is a provider of values which guides human actions and decisions. Values include: "... the values of society where one is born, values arising out of personal experience, and those acquired through the education process" (Hofstede, 1984:25) and, according to Samovar and Porter (1991), are considered as social guideposts mainly based on religious and philosophical views. However, although they are features that appear in all societies, they differ in character because societies operate in different environments and implicitly, others influence them within those environments. In Libyan society, with its Arab and Islamic heritage, norms and values are based on religious principles. Because it is predominantly rural and/or nomadic, social customs and norms, and religion play a significant role in influencing all aspects of daily life and have power over social behaviour. Belonging to such communities means that rules/values conflict with the needs of each individual.

Islam emphasizes the importance of knowledge education for both men and females, and there is no preference or priority of one sex over the other. This is evidenced in first verse of the Holy Quran where ALLAH "The God" says

"Read In the name of your Lord, Who has created (all that exists), has created man from a clot (a piece of thick coagulated blood). Read! And your Lord is the

Most Generous, Who has taught (the writing) by the pen, has taught man that which he knew not.” (Surah 96 verse 1-5, page 595)

Within Islam, this means that ‘reading and writing’ were the first two actions that emerged in the Islamic instructions; moreover, the Prophet Mohamed (PBUH) said, “Seeking the variety of knowledge is obligatory upon every Muslim man and woman alike”.

However, Barakat (1993) considers the Islamic religion in the Arab world as the foundation on which human relations are built; hence, the significance of the relationship between religion and student choices. In the Libyan education system, starting from kindergarten to the end of secondary education, although not at the university stage, religion is a compulsory subject. In addition, whilst Libya has become increasingly more open socially, economically and politically, thereby producing change in some customs and traditions, education and political participation, religion still affects many aspects of the community and daily life. Indeed, a certain conservatism and religious restriction prevails among many segments of society. Accordingly, the process of choosing a subject for study at a university is influenced by religion, and crucially, a student is under the influence of his family’s religious outlook to change subject choices. For example, students may blindly follow their parents’ wishes because the dominant

cultural and religious belief is that obeying and honouring parents are the foundations of success. Significantly, this can happen even if parental desires are against a student's personal wish. Moreover, some students avoid enrolling on some courses because Islamic religious law and culture prohibits the mixing of males and females. For example, in medical school where students have to interact with patients, it is considered embarrassing if doctors and patients of the opposite sex encounter each other. Nasaar (1981), starting with two main assumptions, attempted to explore the impact of religion on Saudi Arabian students' lives and its relationship to the field of study. He demonstrated that students of scientific disciplines are more inclined to religion than are students of literature. However, while the study found that the orientation towards religion increases because of increasing knowledge the research revealed that there was no significant correlation between choice of subject and religion.

In a study conducted in Jordan, Manasrah (1994) explored university education from several perspectives with the aim of establishing the influence of co-education and curriculum on students' educational achievement. Various disciplines and years of were covered in the research that included 400 students (230 male and 170 female). 78% of the respondents stated that co-education has a negative impact on students' achievement, and that this negative impact is

socially, economically and academically conditioned. In addition, 86% of the respondents believed that teachers might feel uncomfortable delivering educational content that does not take account of gender differences; moreover, they may ignore specialisms that females are perfectly capable of studying, but for which society considers inappropriate for females. In a recent study by Shalawi (2008), conducted at the Imam Muhammad bin Saud Islamic University in Riyadh, a questionnaire was distributed to a random sample of 142 students from different majors, aimed at identifying factors associated with the selection of specialisation among undergraduate students. Unlike studies previously mentioned in this discussion, Shalawi's study demonstrated that in their choice of university subjects, students followed their individual wish and other personal factors, and were not driven by economic/career imperatives. Hence, this indicated independence among students, probably the outcome of changing cultural influences.

The discussion of the impact of religion on the subject choice in HE in the Arab world has two main dimensions: As shown in Nasaar's study, religion may be considered as a constraint, for example, some people may agree with the segregation between boys and females in education even from early ages. Indeed, in Libyan society where officially Islam is the source of legislation, conditions

still exist which may appear as constraints. The parameter, which reflects the impact of religion upon choice, is what is known as 'Divine Choice'. For example, when a person firmly believes in delegating the choice, specifically choice of subject, to Allah, in Islam this is known as the *Estikharah*, prayer or a prayer performed by a human seeking help from Allah.

In his study entitled "The trend towards education and its relationship with educational values prevailing in Kuwaiti and Bahraini families", Abdul-Qader (1975) examined the role of educational values in guiding students to select appropriate courses in HE. The study sample consisted of 238 Kuwaiti, and 98 Bahraini families. A questionnaire was used with a mixture of open-ended and semi-open questions to measure the attitudes of families towards their children's future education, and implicitly, an understanding of the students' perception of subject choice. The results showed that the values varied depending on the students' gender. They confirmed that the specialisms linked to beauty and to humanitarian aspects were considered more appropriate for females, while those requiring strength and labour were considered more suitable for men; hence, supporting Abouchedid (2007) argument that gender stereotypes instilled by cultural values, play a significant role in a students' choice of a specific subject.

In their studies, Bourdieu (1986), Coleman (1999), Bourdieu and Passeron, [1977]1990, and Keeley (2007) relate cultural to human capital. In particular, Bourdieu in his work, *Outline of a Theory of Practice* (1977) links cultural capital to symbolic power, thus identifying it as a significant influence on the production of inequalities, which in turn impact on education. By delineating how higher education institutions facilitate the creation of an elite class, Bourdieu (1996) demonstrates how cultural capital is directly linked to class, educational attainment, social mobility and human capital. According to Bourdieu, one can invest in cultural capital because they are expected to get positive returns which, in the present context, could be taken to imply that parents can invest in their children's cultural capital with the hope of gaining some economic capital; or, enabling them to convert it into economic capital. By extension, the parents' transmission of cultural capital to their children may enable them to have a sense of pride, belonging and confidence that eventually, through education, they will convert into economic capital. For, as Sullivan (2001) suggests, various aspects of cultural capital include behaviour, sartorial knowledge and speech. Notably, as Bourdieu suggest (1986) cultural capital is enhanced by economic capital since parents can use their economic wealth to support their children to study their subject choice at a university of their choice. Similarly, students can gain a high level of cultural capital participating and

attending multiple cultural activities because their parents have the economic capital to support them.

Bourdieu (1977) argues that the development of cultural capital begins at home and is part of the individual's socialization process; however, this process continues throughout his time at school. Nevertheless, if as he suggests, the education process involves the inculcation of habits and practices that may be not be questioned, one could argue that in an Islamic society such as Libya, religious education is juxtaposed with formal Western education as the two systems that develop the individual's cultural capital. Notably, in Libya, while one may not attend the Quranic school, they will still be exposed to the influences of religion since Islam is embedded in the education curriculum. Both, Western oriented and Quranic schools might be regarded as representing the institutionalized transmission of culture. Notably, in the case of religious education there are no qualifications to be gained unless one attends the Quran schools. Nevertheless, individuals whose parents are highly educated and live and work in the coastal cities will experience higher levels of cultural and economic capital within which the influence of Islamic culture and education will be minimal. This implies that because of the amount of economic and cultural capital within their families, when they get to the point of making decisions about their subject choices they

are better positioned to gain admission to science subjects in coastal city universities or other international universities. In addition, students from these families are likely to experience more parental influence than those with less economic and cultural capital

Choice of Subject and Student Satisfaction

The concept of student satisfaction is an important one for many different reasons since it has a big influence on achievement rates and the eventual move into stimulating employment. However, being multi-dimensional, and subject to change in students' attitudes over the length of their university study, such satisfaction is difficult to measure. University provides a new environment and experience, a new academic atmosphere, and students form new relationships and social networks. These new dimensions to the life of a young person have influence upon the satisfaction that individual feels regarding his/her choice of subject. In this context, satisfaction is seen as having two different stages; the first before the choice of subject is made, and the second occurring after the student joins the course. Three elements exist within this overall process: expectation, evaluation and the degree of evaluation. Moreover, satisfaction can be considered at the personal level, and the organisational level. In respect of Libya, there has been no research conducted that could enable the measurement

of either of those levels. This situation may have arisen because Libyan students are not actually in a position to question or evaluate government policy since the providers of undergraduate programmes are state universities and there is no competition between them. Researchers on students' subject choice, for example Scracbec (2000), Pitman (2000), Phipps (2001), and Hoffman and Kretovics (2004), argue that students should be treated as customers because they pay tuition fees bills and without such fees HEIs could not survive. In this analysis, customers have a voice – they can request a change or improvement in the commodity or service purchased, but clearly, a student cannot interfere in the subject curriculum or assignment grades.

Nonetheless, student satisfaction is a well-understood concept in western environments and it does equate with customer satisfaction, relating to various aspects of the student's experience; for instance, the extent of satisfaction with the university's academic and social welfare services. It is **however, worth** noting that in as much as the notion of marketing education does not apply in Libya where higher education is free and there is no competition, the education providers (university and government) control choice. In this context, Comm and Mathaisel's (1998:164) cited in Scott 1999 suggestion that a standard practice

should be: "... to seek student feedback upon completion of a unit of study in order for a university to reach the demands of their customers" is inapplicable.

It is justifiable, however that in assessing and improving student satisfaction we take into account the recommendations in the literature relating to the best practice, since, as Hunt (1991:109) has argued, "when the actual is not as expected this results in dissatisfaction". Satisfaction, as Anderson *et al* (1994), and Mittal *et al* (1999) suggest, should be evaluated as a cumulative experience with a certain choice. Other researchers, for instance Browne *et al* (1998), Borden (1995), Elliott and Shin (2002), and Scott (1999), have demonstrated that students' experiences, specifically in their first year of study impact upon their satisfaction with subject choices. For instance, Scott (1999) explains that since students' expectations change with time, depending on their real experience of the subject and the information that they obtain through social networks, institutions that aim to enhance their satisfaction should make a conscious effort to ensure that students' expectations coincide with the institutional ones during the course of the programme of study.

For it is arguable that a conflict of expectations can arise quite soon into students' first year of study if this issue is not addressed and students may well develop feelings of dissatisfaction at this early juncture of their studies.

Noticeably, satisfaction is relative depending on individual students but those who choose their own specialisms based on accurate information and data are often more satisfied than those whose parents have directed them into particular disciplines against their wishes. Whilst students in this position surrender to the wishes of their parents, they usually remain dissatisfied with the course of study they are enrolled upon.

Previously, there has not been any research on student university subject choice in Libya and the intersection between higher education and the labour market. Thus, the research question is intended to identify the factors that affect the student's choice of subject at Libyan universities. This thesis, therefore, will be the first study of choice in Libyan higher education and its possible impact on graduate employment and the labour market in general.

Summary

The chapter has reviewed literature relating to issue that impact on students' subject choice in the HE context. In discussing this process in Libyan HE, a historical perspective has been offered in which it has been shown how cultural imperatives influence student behaviour in this respect; particularly, the role of parents and gender were highlighted. The discussion identified three related and important models associated with student choices. Firstly, the human capital

perspective has been considered in what has generally become accepted as the economic model. Secondly, the social capital model has been discussed, with its focus on parental input, gender considerations, and peer group/social network. Thirdly, the cultural capital model that addresses such factors as the way in which culture and religion predispose certain values towards HE was also considered. Finally, the concept of student satisfaction as understood in the West and as applicable in the Libyan context was explored. In the next chapter, the methodological approach to the empirical study is introduced.

Chapter 4.

RESEARCH METHODOLOGY AND METHODS

Introduction

This chapter presents the philosophical framework and discusses the epistemological perspectives that guide the study and help the researcher to choose the appropriate methods. It begins with a brief discussion on the epistemological stance of the researcher. It progresses to consider the value of qualitative and quantitative approaches and then presents a rationale for the choices made in this study. The case study approach is then discussed, and is followed by a justification for adopting this method and for choosing the particular cases involved. Thereafter sampling issues are considered and detail concerning each of the case studies is provided. The methods of data collection and analysis are then indicated, and issues concerned with generalisation capabilities and ethics are dealt with.

Ontological and Epistemological Considerations

Epistemology, ontology and methodology constitute the fabric of knowledge. In other words, research is affected by the philosophical orientation of the

researcher in the understanding and interpretation of the facts around them. Hitchcock and Hughes (1995) claim that epistemological and ontological assumptions direct a researcher not only in how to understand social reality, but also in the way in which a study should be conducted to achieve this reality.

The two chief epistemological paradigms in social sciences in general and educational research in particular, are positivism and interpretivism. As noted by several scholars (Denzin and Lincoln, 2007; Husen, 1997; Maykut and Morehouse, 1994), the fundamental difference between them is derived from their epistemological positions or stances, and the way they understand and analyse a social phenomenon.

Husen (1997:17) describes positivism as being "... modelled on the natural sciences with an emphasis on empirical, quantifiable observations which lend themselves to analysis by means of mathematical tools". Positivism perceives social phenomena to be external realities. Hence, from the viewpoint of positivists, knowledge is based on objective reality, the natural sciences methods such as survey and experimentation can be applied to examine social reality or social facts, and data can be collected and interpreted in a value-free manner (Bryman, 2004; Hammersley, 1995). The emphasis, within this paradigm, is on objective knowledge which can be numerically measured (Robson, 2002)

through a quantitative approach, in order to reject or accept a particular hypothesis. Positivists seek to generate universal laws that subject the human community to experimental research and measurements.

In contrast, the interpretivist paradigm is seen as an alternative approach that emerged due to the criticisms directed against positivist scientific philosophy since the 1970s (Hammersly, 1999), and hence, it is considered as a contrasting concept to positivism (Bryman, 2004; Hammersly, 1999). It criticises the way in which positivism looks to social phenomena as naturalistic (Wellington, 2007), and seeks to overcome a single view of the world. The approach is regarded as an inductive one that attempts to generate theory. It claims that social reality is infinitely complex and, therefore should be understood in its social context, using relevant qualitative approaches from different standpoints.

According to the interpretivist view, there is a difference between the social world and the scientific world and between researching people and social life, and researching the objects of natural science (Bryman, 2004). Therefore, the scientific method should not be applied in the social world. Interpretivists claim that social behaviour and human actions have meaning and, this requires an understanding of the set of meanings associated within them. They argue that when positivist researchers treat perceptions of the social world as objective and

absolute, they neglect the fact that the social world is meaningful and hence, understanding it cannot be achieved in isolation from its social and cultural context.

From the discussion above, it seems that both paradigms are different not only in how they understand the social reality but also in their methods of collecting and analysing data. Epistemologically, as mentioned in Chapter One, the choice of the focus for this research project resulted from a small study conducted by the researcher at one of the Libyan universities, which produced quite astonishing findings regarding the confusion encountered by students when deciding upon their future field of study. As part of that initial exploration of this issue, the researcher also participated in discussions with some of the students in various departments regarding the choice process and the rationale for their choices in this respect. Such participation and observation of the real setting is seen as one of the strengths in qualitative research (Robson, 2002; Denzin and Lincoln, 2003; Creswell (2003).

The interpretivist paradigm, in a broad sense, emphasises people's perspective of their actual life experience. Merriam (2001) argues that to a large extent, when the researcher operates in an impartial manner, interpretive research reflects the reality of a given situation, not only in the way the data is collected, but also in

its analysis and interpretation. Interpretive studies seek to provide a justified conclusion by providing the reader with in-depth details of the phenomenon being studied (Firestone, 1987).

This thesis accepts the fact that the decision to choose one field of study over another is a social and cultural process, an understanding of which can only be achieved by reference to its social and cultural context which influence it. This process is one in which family, relatives, peers, and neighbourhoods are involved, and hence, rich and detailed descriptions of this process, from different aspects, are needed to facilitate a comprehensive appreciation of it. Consequently, the interpretive paradigm is seen as appropriate since it will allow the development of a broad-ranging and substantive understanding of the social and cultural dimensions embedded in the decisions made by students.

Qualitative and Quantitative Strategies

It is widely agreed that the clarity of research objectives and questions helps the choice of the appropriate methodology and method(s). In methodological terms, a reasonable amount of literature has been produced comparing the qualitative and quantitative approaches, the two fundamental differences between them being the philosophical stance as discussed earlier, and the emphasis on how data will be gathered and interpreted. Both can provide insights about a phenomenon

from different aspects. However, the choice of which to use, or indeed whether to adopt a mixed methods approach, essentially depends on the nature of study, the research purpose, aims and questions. This is not a simple issue, since as noted by Hammersley (1999), the difference between the two approaches is greater than face value suggests, that being it is simply in the type of data (numeric or non-numeric) collected.

Tuckman (1994) claims that in fact, both approaches can be used to answer the same questions, but Bryman (2004) and Hammersley (1999) caution in this respect, arguing that the nature of the study and its need to address particular questions direct a researcher towards either a qualitative or quantitative methodology. That said, specific questions such as the relationship between variables may actually demand a difference in the kind of data required, its collection, and analysis. However, this is not to suggest that each approach has its own exclusive data collection tools, and as noted by Wellington (2007), some quantitative instruments can produce qualitative data and vice versa, and/or may be used to complement each other. Indeed both approaches can be combined in order to overcome the disadvantages of a single method and to capitalise upon the advantages offered by each (Hammersley, 1995; Miles and Huberman, 1999; Creswell, 2003). The recognition of such a possibility clearly rejects the

traditional view that deems that both approaches to be incompatible with each other, but it does not diminish the importance of the epistemological positions, from which they are derived

The Rationale for the methodological approach

In choosing the methodological approach, it is necessary to be certain why it is the most appropriate, and hence to provide a rationale. In this respect, it has already been highlighted that the study's nature and purpose are issues that underpin such choice. In addition, the type of data sought, whether numbers, facts or verbal information or actions, comes into the equation since such knowledge is necessary in order to determine the best methods of data collection and analysis.

Blumer (cited in Miller and Dingwall, 1997) states that quantitative research tends to be interested in the correlation between variables, regardless of what these variables mean for the people being studied. In other words, a quantitative approach represents a numerical statistical method which deals with numbers and the facts to be examined. Qualitative research, in contrast, is an appropriate choice when a researcher is concerned with understanding the meaning of people's perceptions, studying new themes, and identifying different people's views regarding a specific issue. One of the strengths of qualitative research is

that it seeks an exploration of the **process that** has not been yet identified (Marshall and Rossman, 2006).

Maxwell (1996) points out the following five reasons for conducting qualitative research:

- *Understanding the real meaning of live experience of the case(s) that have been studied*
- *Understanding the participant actions in a particular context and how these actions are shaped*
- *3 Generating a theory through exploring the influences that occur as a result of an anticipated phenomenon*
- *Being interested in understanding the process actions rather than its outcomes*
- *Tending to understand the relation between variables and how they interact*

Qualitative methods seek to know what: “... *people do, know, think, and feel by observing, interviewing, and analyzing documents*” (Patton, 2002:145). This thesis attempts to explore and identify the factors influencing one of the most important choices in a student’s academic life which is the precise ‘choice of major’ at university. The thesis claims that, on one hand, the choice process of

the field of study is influenced by different social and cultural aspects such as family, peers, relatives, social and cultural values, and the student's perspective, although all in different degrees. On the other hand, it is also recognised that the strength of these various influences differs from one region to another in Libya. For this reason, this study engages in comparative qualitative research, in order to identify and explore the most important factor in the process, in four different regions of Libya, and to establish which influences are similar and which are different.

Clearly, a qualitative approach is appropriate to achieve this objective since it will allow for an exploration of the 'choice' process in its social and cultural context, and for data, which includes students' opinions, feelings and views, that will produce deeper insight into the process, to be obtained. These opinions will be secured mainly through individual interviews and focus group interviews, but additionally a quantitative exercise will be conducted via a questionnaire survey, and documentary analysis will be conducted in order to gain a detailed understanding of the cases.

A comparative Case Study Approach

The case study has become a common approach in qualitative research. It helps a researcher to gain valuable insights into topics, events, settings and processes

emerging and changing as a response to world change in general. Therefore, the case-study design was selected as appropriate for this research, because the aim is to explore and understand in depth **how social**, cultural and human capital affects the choice process of subjects chosen by first year students at Libyan universities in different regions. Moreover, the questions of *why* students make such choices and *what* factors play a role in the **process** are also asked.

As this study is interested in contrasting outcomes, a multi case-study design is used, with each case representing different districts of a country (Yin, 2002), and reflecting a variety of conditions in multiple socially and culturally-structured areas, and how these different conditions function in the choice process. Due to time and effort constraints, four universities from a national total of sixteen, were selected, being based on geographical considerations as they represent different regions in Libya. All universities in Libya are public institutions, operating under state policy, and three of them can be considered as fully representative of their areas because of the absence of other public universities. A comparison of the four selected universities, and of four similar subjects within each of them, will enable the accomplishment of the study's objectives.

The starting point in conducting a multi-case study is the consideration of the reasoning for selecting the particular cases identified, and the unit of analysis chosen. Given the geographical size of Libya, and the different customs, norms

and traditions that prevail from one district to another in many social and cultural aspects, this study starts from the premise that there are fundamental differences in the type of factors and the degree of influence they wield on the choice of academic programme followed by a student, including the specific university and field of study chosen. A comparative case study is selected as the methodological approach, since the focus shifts from one single unit to a few, in what is defined by Gerring (2007) as a cross-case. Adding to this definition, Gerring (2007:27) comments “... *it is common to combine several cases in a single study. If the cases are comprised of large territorial units, then this combination may be referred to as the ‘comparative’ method*”.

In terms of the research purpose, Yin (2002) describes three types of case study: descriptive, exploratory and explanatory. The explanatory case study is regarded as a causal approach to an investigation, and is used in order to examine a cause and effect relationship. This study employs both descriptive and exploratory approaches. It is *descriptive* in the sense that it seeks to provide a comprehensive description of the phenomenon in its broad context, and it is *exploratory*, as it attempts to uncover the real setting of an unknown process that has not been studied yet, which is the process of choice of the field of study. **It is, however, also explained by the fact that it investigates a causal relationship i.e. between factors that influence student choice, for example you may say that more**

traditional family values force a student to choose a major that will not take him/her away from home when it comes to later employment. So, basically you are conducting all three types of case study.

Yin (2002) define a case study as “... *an empirical inquiry that investigates a contemporary phenomenon within its real life context*”. As this study attempts to identify the local variation, such understanding cannot be reached unless it is conducted in cross-cases and relies on interviews for data collection (Marshall and Hantrais, cited in Bryman, 2004). When individuals or teams set out to examine particular issues or phenomena in two or more countries with express intentions of comparing their manifestations in different socio-cultural settings (institutions, customs, traditions, value systems, life style, language, thought patterns), using the same research instruments either to conduct secondary analysis of national data or to undertake new empirical work, the aim may be to seek explanations for similarities and differences or to gain a greater awareness and deeper understanding of social reality in different national contexts.

The Rationale for the Choice of the Sample Universities

Hantrais (2007) argues that there are certain considerations that should be borne in mind in choosing a research sample. These are the possibility of obtaining: access, rich data, and quality data. Additionally, the researcher must ensure

credibility of the research sample, as well as permission to return to the study sample when needed. Sample selection presents a number of challenges for qualitative researchers, since in contrast to quantitative researchers who apply mathematical techniques to select large or even all-inclusive samples, qualitative research samples are neither mathematical nor systematic. Instead, they are rather small and involve a series of decisions regarding not only how many individuals to include in a study, but also about the criteria by which to select the sample(s). Furthermore, in qualitative research there are two issues that a researcher should be aware, these being firstly, the constraints of time and means, and secondly, the clarity of the framework used in the selection of the sample (Miles and Huberman, 1999). As indicated already, due to the constraints of time and effort and the relatively large size of the sample target (first year Libyan university students [96,456] in year 2008-2009), a sample of students at four universities only was used. This was a manageable sample, which still provided reliability, which as noted by several scholars (Merriam, 2001; Gerring, 2007; Stake, 1995; Biber and Leavy, 2010) is important in a qualitative inquiry which seeks to describe, interpret and understand the meaning of phenomena from the lens of the participants. A reliable sample can provide rich information and data from which much can be learned, and for this reason, purposeful sampling was used as a means of obtaining the data. This choice is in keeping

with the recommendation by Stake (1995) and Lincoln and Guba (1985) that a research sample for a qualitative study is likely to be purposive, to enable the researcher to gain the full scope of the issues to be explored.

Additionally, Maxwell (1996) points out that one of the main goals of a purposeful sample is to attain typicality of the settings or individuals or particular activities and to accomplish a particular comparison between different settings or individuals. In this sense, the sample used here can be classified as a purposeful sample based on a geographical distribution to enable the full scope of the choice process in relation to the field of study in four different social and cultural settings.

Sampling was undertaken at different stages. Initially, it was brought to bear when considering the number of cases (universities) to be included in this study, subsequently it was concerned with determining the number of interviewees from each chosen department within those universities, and finally it occurred when deciding which particular subject to would be comparable. Section 3.7 reports the procedure followed in these stages.

Defining the Study Sample

In determining the sample, the researcher took advantage of his previous experience, having lived in several parts of Libya and travelled throughout the

country. The advice of Bereday (1964) was followed in this respect, since he emphasised the importance of the researcher's familiarity with the contexts to be studied. Such familiarity should be carefully balanced as it is helpful to be considered objective by a research population, and therefore, not a complete insider, but simultaneously, it is valuable to have sufficient inside knowledge and experience not to be regarded as an intruder. The researcher's own position was that in one sense he was an insider given his Muslim, Arab, and Libyan background. On the other hand, coming from Misratah City, he was an outsider to other cities. Nonetheless, his experience of living and working in different parts of Libya effected total multicultural integration which helped to forge social networks outside the researcher's home city, and would operate to enhance access, as was evident in the pilot study when data sources in different regions were placed at the researcher's disposal.

It was also important to give consideration to the percentages to be involved in the determination of the sample, since there is no agreement or guidance on the ideal sample size for a multi-case study approach to be considered as generalizable. Marshall and Rossman (2006) also warn that a poor choice of sample often negatively affects the research results. Therefore, as mentioned already, a purposeful sample was selected from Libyan universities, as it was believed that this strategy would yield a comprehensive understanding of the

phenomenon in the main different HEIs in Libya, and thus lead to better understanding and theorising. It is also important to emphasise that the main aim of the study is to secure a better understanding of the phenomenon in each region, rather than to focus on a particular case. Consequently, four universities were selected according to the following criteria: (a) geographically, from different regions, East, West, Middle, and South of Libya; (b) all are public universities that implement state policies; (c) all students were in the first year; and (d) a similar major was chosen at each university.

According to the Ministry of Education (LME) in Libya, the total population of HE students in the country was 311,238 in 2009. The 'estimated number of first year students in 2009 was 112,343 (Ministry of higher education, 2008). (First year students - the unit analysis of this study).

The four universities chosen as cases are different from each other in terms of total student capacity, facilities, number of branches, and the availability of courses. In respect of size, some Libyan universities extend to more than six branches distributed throughout different cities, and within these branches are a variety of faculties or departments. This arrangement limits the presence of certain disciplines in some cities, and whilst all universities provide a variety of courses in different areas, they are not equal in terms of the availability of courses or subjects. This means that some universities have the majority of

courses available at all braches, whereas others lack this advantage. Table 4.1 provides some statistical information about the chosen cases for this study.

Table 4-1: The distribution of students in the four selected universities

University	Number of students	Number of faculties	Gender	
			male	female
<i>University of Gharyounis</i>	49157	14	25120	24037
<i>Al-Jabal Al-Gharbi</i>	18418	19	10112	8306
<i>Sabha</i>	14749	17	8132	6617
<i>7th of October</i>	18821	15	9978	8843

As can be seen from Table 4.1, the total number of students in the four case study universities was 101,145 as at 2008, which constitutes 47% of the total number of students in Libyan universities.

Case One: University of Gharyounis

The *University of Gharyounis* is the oldest university in Libya, being established in 1955 in Benghazi, and originally called the Libyan University. Now, this university has thirteen faculties that offer more than 52 different courses, and all of these faculties are in the city itself, with the exception of two which are

located on the city's outskirts. The total number of students in *University of Gharyounis* is 53426. In 2009, the number of students enrolled on first year courses reached 12,546. Students in this university have several advantages over students elsewhere, the main one being the availability of courses provided in different disciplines, which subsequently increases the number of employment opportunities. Additionally, the urban nature of the university's environment influences university students in a positive way, for instance, females find a more liberal atmosphere and are therefore, able to study in HE and to find employment in their preferred occupations if available.

Case Two: The seventh of October University

This university is located in Misratah City, which is about 200 km to the east of the capital. It was established in 1983 and now has a large number of faculties and departments that are distributed between the two different cities of Misratah and Bany Walid. This university was established in a semi-modern city with a conservative social environment, where the dominant cultural expectation, until the later nineties, was that females should not extend their education beyond the secondary stage. In the early years of the university's existence, females did begin to enrol on courses. However, the extended family is a powerful concept and many members of their family influence students in many different ways.

Case Three: Sabha University

This university was established in 1976, on the basis of a Faculty of Education only, but it subsequently developed new departments and faculties. Being located in and named after Sabha, a big city in the south of the country, it now has eight different faculties distributed in five different small cities and villages, and it is the only university in the southern part of Libya. This region has its own traditions, customs and habits, and there are fewer job opportunities available than in other regions. The departments and faculties of Sabha University are found in small cities and villages where social relationships are very strong. The people in this area depend on rain-fed agriculture and pastoralism. Most of the villages of this region are dominated by the traditional culture of the Bedouin and the characteristics of urban life are generally absent.

Case Four: University of Aljabal Al-gharbi

This university was established in 1985, in Gharian City, in the west of the country, in the area known as Western Mountain. The basis was a Faculty of Accounting linked to Al-fateh University in Tripoli, and the main aim of this faculty was to serve and support the people living in the area. Gradually, the institution was re-designed and became an independent university with fourteen different faculties offering a large variety of subjects. It includes different

faculties distributed throughout five cities, and in 2009, there were 20,103 students enrolled.



Figure 4-1: The Location of the Case Study Universities

The Research Methods

Triangulation of Data

Methodology refers to the strategy that guides the research design, whereas method(s) refer to the particular technique(s) used to gather the data required (Harding, 1987). Triangulation refers to a combination of multiple data collection methods, and is a strategy that enables the researcher to overcome any

shortage of **data, which** may result from relying on one single method. Additionally, it provides a way of obtaining data about the same phenomenon from different perspectives, thereby allowing for a degree of checking the content of data secured from one source, against that of another, and hence, offers a powerful way of demonstrating concurrent validity, particularly in qualitative research. Triangulation of data collection, which is used in this study, will not only give rich information and thick description but also will give the reader the opportunity to judge the transferability of this study to other settings and thereby enhance the external validity of the study (Cohen *et al*, 2000). These ideas are confirmed by various researchers (Denzin and Lincoln, 2003; Stake 2003) who also argue that the richness of the data provided by multiple data sources not only helps the researcher in exploring and explaining the social reality but also reveals the complexity embedded in this reality by studying it from more than standpoints, which in turn enhance the research credibility. To provide for a triangulation approach in this study, various instruments were used, these being, questionnaires, interviews, focus groups, and documentary review.

In respect of the data collection instruments, some scholars (Waltz *et al*, 2004; Robson, 2002; Brewerton and Millward, 2001) argue that a researcher should know, in advance, the purpose of the data, which is to be collected, described,

screened or predicted, as this determines the type of tool required to achieve the purpose. Moreover, a distinction is drawn (Kumar, 2010) between two kinds of data source: primary and secondary sources.. Secondary data is that which is already in the public domain as academic and practitioner literature, and as government statistics for example, while primary data consists of policy documentation and information gathered by a researcher through some empirical exercise. Generally, a researcher will survey the secondary data and use that to inform the development of research instruments through which to collect primary data which is then used to determine whether anything new can be added to the body of literature that underpinned the instrument. Commonly, in the case study approach which allows for a comprehensive strategy, multiple data collection tools are used, thereby giving opportunities to use more than one data collection technique, and hence facilitating the entire process of data collection and allowing for rich information about the objects of the research (people, organisations, institutions, events, etc.) to be secured.

In generating data from different sources, triangulation paves the way to answering the study questions comprehensively. This does not mean that the method relies on research questions only, but also on the actual situation of the case(s) being studied (Maxwell, 2005). Choosing data collection methods is the

key issue in research, since certain methods are complementary and can yield good outcomes, as for example in the case of observation and interviews, whereby observation enhances the description of participants' behaviour, and interviews help to gain the perspectives of actors that cannot be achieved by observation (Maxwell, 2005).

Interviews

The interview is a significant and flexible method that promotes clarity of participants' opinions and attitudes by informal face-to-face communication and obtains data. It is practical rather than theoretical and requires creativity and insight on the part of the researcher (Maxwell, 2005). It is widely used as a main means of data collection in qualitative research. Indeed, in the pilot study conducted for this research project, four students were interviewed and the exercise was valuable in clarifying the particular questions asked, and as a general preparation for the researcher for the main interview exercise. The interview protocol was refined and improved so that the constructs involved were more aligned with what was socially and culturally relevant in the Libyan context (Green and Kreuter, 2004). The interview method was enhanced by the epistemological viewpoint of the research, since the intention was to understand the actual social and cultural context and its influences on the process of

choosing the field of study, from the perspectives of first year university students. As a research technique, the interview has several forms, structured, semi-structured, and unstructured. For the purposes of this study, the semi-structured interview was used because of the flexibility it gives a researcher to ask supplementary questions and an interviewee to answer, whilst simultaneously allowing for a definite agenda to be pursued.

Morse and Field (2005) noted that an advantage of the semi-structured interview is that it allows the researcher to refine and clarify questions that are not clear to interviewees, and to eliminate any ambiguity that might arise during the process. Moreover, it gives the respondents the opportunity for further discussion if explanation is required. The semi-structured interview should be seen as purposeful conversation which intended to widen the researcher's knowledge and perceptions of the issue being explored. Specifically, it was believed to provide in-depth understanding of the actual setting of the student choice process, why the student (interviewee) chose to go to university, and why a certain field of study was selected. As with other data collection techniques, the interview does have disadvantages, in which respect, Brewerton and Millward (2001) mentioned one of these as being the potential for conversations to be extended to non-

essential issues. Therefore open-ended questions are used to help the researcher to overcome the disadvantages.

The Focus Group

The focus group method was used as a second major means of data collection, since in addition to the ability of this method to obtain rich data, cultural imperatives dictated caution in personal interviews with females. Ulin and Tolley (2005) argue that the focus group interview is valuable when an individual view is either insufficient or when the desired interviews are unapproachable without a chaperone. It provides a deeper understanding derived from the interaction and discussion of a subject of common interest from multiple perspectives (Edmunds, 2000; Morgan, 1997). In this respect, the dynamic discussion among first year students in four different departments brought to the surface the students' perceptions and opinions regarding the process of major choice. At the same time, these groups served as a comparative mechanism, allowing the researcher to recognise the consensus and diversity among the participants from the four sites (Morgan and Kruger, 1993). Various suggestions are made in the literature concerning the number of participants in a focus group, and how many focus groups should be conducted in a research exercise, and it is generally suggested (Ulin *et al*, 2005; MacIntosh, 1994) that between six to ten individuals provides

an optimal size, and whilst there is no advice in the literature regarding the number of groups to be held, two to four groups in each region was considered advisable. In adopting a focus group method, a number of issues arose apart from the membership of each group, and the number of groups; for example, the selection criteria for the membership, such as: age, marital status, sex, and geographical location. In terms of geographical location, it had to be remembered that each university has different campuses and that specialism are scattered, making it impossible to achieve a truly heterogeneous group composition.

However, it is noted (Morgan, 1997) that a focus group comprised of members who are too diverse can lead to sterile discussion as the common points of interest are not sufficiently strong to generate a discussion to which all members can contribute. Hence, homogeneity was aimed for in the focus group composition, it being assumed by the researcher that each student believed in his/her individual right to choose his/her major. The groups were therefore constituted based on academic disciplines, which encouraged the participants to contribute effectively. Consequently, the groups were composed largely homogenous, with students being similar in terms of discipline, age, geographic location, the marital status (although marriage is now exceptional among this age

group). Such harmony motivated students to talk openly and share their individual experience liberally.

Documentary Evidence

The analysis of documentary evidence, as any other data collection tool, has its weaknesses and strengths and is affected by critical questions regarding accuracy and quality. That said, in the social sciences, data from documents is crucial when the past voice of events or activities is an objective of the research (Briggs and Coleman, 2007). In addition, in this study, data from documents are important in the sense that the process of choosing the field is not a sudden decision, but rather one that is prepared, and has its own history. Naturally, it is important for the researcher to know the conditions under which such data were produced (French *et al*, 2001), and in this regard, this study is not interested in statistics per se, but in the meaning that is beyond them. For instance, if the numbers of students enrolling in Medicine has increased at the expense of other disciplines, attention will be directed to the reasons behind such a change.

Documents come in different forms such as: education policy statements, annual reports, official educational statistics, regulations, and legitimating and official websites which can provide very important data. It is necessary to carefully select and clearly cite such sources in a study so the reader can easily refer to

these documents to delve further into the subject, if required. This documentation analysed in the study was useful in establishing the significant quantitative features of education in Libya, which provides the thesis with contextual information about the distribution of students in terms of **gender, universities, and departments** and to clarify the general trend of **how students makes to choose a field of study**. Specifically, data from all the official documents of the LME, in addition to the archives and documents of the four universities that were studied.

The Questionnaire

The questionnaire in this study was used to gain further information about the general characteristics of first year students in Libyan universities. It aimed at examining some variables that may be influential on student choice, such as parental level of education, the history of education within the family, the family income, and other issues.

Ethical Considerations⁵

Ethical considerations are important in any research activity. The clarity of the invitation to participate, and the various assurances given to a research sample, will be reflected, positively or negatively, in terms of the richness and accuracy of the data obtained. In order to obtain rich data from research participants, the individuals concerned must feel secure and unthreatened. This requires their complete understanding of the study in which they are taking part, and guarantees regarding their anonymity and the confidentiality of data provided by them.

Gaining informed consent, avoiding dishonesty, and being aware of participants' rights are the main concerns in ethical issues, and if attended to by the researcher, the principle of mutual respect between him/her and the participants can be fostered

Undoubtedly, qualitative research which seeks the words, opinions and attitudes of human beings, does invade personal privacy (Stake, 1995), and clearly individuals have the right to refuse to participate. Diener and Crandall (1978,

⁵ The researcher names the four Universities because in Libyan culture one is expected to name places and the subject but not use anonymous labelling. The researcher secured letters confirming that he was intending to investigate the particular Universities.

cited in Bryman, 2004) identify four concerns a researcher should be aware of when conducting social research: whether the research is likely to harm participants; lack of information on which to base consent; invasion of privacy; and whether deception is involved.

Undoubtedly, the degree of sensitivity in these respects depends on the extent of intervention in matters of personal and private. For example, opinion surveys on participation in elections are different from a set of questions related to private income or family life.

The ethical procedure for collecting the data in this study was divided into two steps. The first stage occurred when permission was obtained to collect documentary information and to interview the registrars of the four case study universities from the Libyan Ministry of Higher Education (LME). This approval facilitated the remainder of the data collection process. Permission was then needed from each case study university to interview students. However, the pilot study had enabled the researcher to establish what actions were required in this respect, and as the study concerned decisions taken in the transfer period between secondary education and university enrolment, participant information forms and consent forms (see appendices) were prepared and given to participants prior to the interview process. Participants were informed that the

interviews would be either tape-recorded or video-recorded for the specific academic purpose of the research and then transcribed, but that all names would remain confidentiality and other personal details would be undisclosed. Moreover, students were informed that they had the right to withdraw from the interview at any time, without the need to provide a reason. The choice process in such a conservative society as that of Libya, has its own pattern in which parental wish is highly respected, and fully involved in the choice process of field of study. Hence, it was expected that some interviewees would lack the confidence or be too reluctant to tell the whole story about their decision.

For social, cultural and religious reasons, one-to-one interviews with female students were not possible in some cases, and a focus group method was applied to overcome this dilemma. However, the relatively public nature of the focus group meant that it was necessary to be mindful of the need to place students' privacy at risk by delving into social and private issues. Consequently, sensitivity was borne in mind in the operation of these groups. Finally, the ethical procedures adopted in this research were approved by the Research Ethics Committee of the School of Education, University of Nottingham.

Validity and Generalizability

There is an extensive literature on the issue of validity, which is considered to reflect the importance or quality of a research study, and the extent to which it deserves to be read and drawn to the attention of readers. Patton (2001) argues that validity is an important factor to which any qualitative researcher should pay attention when designing a study, analysing the data, and evaluating its quality. It is noted as a necessity in qualitative research that cannot be over-emphasised (Krueger and Casey, 2000).

There are two views concerning research validity. The first describes validity as a matter of degree rather than as an absolute (Gronlund, 1981, cited in Cohen *et al.*, 2007), thus emphasising the fact that there is no method(s) which can guarantee absolute validity in qualitative research. The second view perceives validity as a matter of quality (Tashakkori and Teddie 2003), which is associated with three key dimensions of the research that are: data, the researcher, and the social and cultural setting of the process under study. In terms of data, validity focuses primarily on its accuracy and precision. In respect of the researcher, validity is concerned with the fact that in social science, the emotions, feelings and beliefs of a researcher cannot be excluded and leads to the phenomenon known as 'researcher bias'.

The third dimension concerns the social and cultural setting that expresses the impossibility of repeating the study in the same conditions or even applying its results elsewhere. Lincoln and Guba (1985) make the point that when conducting an interview or observation, the researcher him/herself is a data collection instrument and that this can reduce the validity of the research.

Both the definition and the forms of the term validity have been debated and different viewpoints are expressed. Generally, in terms of form, validity is divided into external and internal validity. The second uses validity as a synonym of credibility (Holloway, 2005; Sandelowski and Barroso, 2006) or of trustworthiness (Mertens, 2004, Kui-Hee Song, 2004).

Adopting yet another approach, Maxwell (1996) describes five types of validity in qualitative research: description, interpretation, theory, researcher bias, and reactivity. Concern about the validity of description occurs when a researcher fails to record participants' contributions, a situation which may lead to inaccuracy or incompleteness of the data, and/or when s/he finds observation difficult for one reason or another. It is advisable that the researcher refine or ensure the description of the data, in order to avoid any misunderstanding or misinterpreting.

According to Maxwell (1996), the second form - interpretation validity - appears as a result of a researcher being unaware of the verbal and non-verbal actions of participants involved in the research, either by not giving them the opportunity to present their own views regarding the phenomenon studied or by the researcher's subjectivity in the interpretation of events described by participants, and therefore, failing to represent the participants' intended meaning. Crotty, (1998) has another view, believing that there can be no valid or invalid interpretation, but merely a 'useful' interpretation, which serves a certain purpose in the research. In short, interpretation means how we come to know more about the object.

Theoretical validity is concerned with the theoretical framework which guides the interpretation of the data. Huberman and Miles (2002) argue that each theory is derived from concepts and a postulated relation between these concepts, and that theoretical validity therefore starts from the validity of these concepts and the relationships between them, when they are applied in the real setting.

Researcher bias remains a challenge in social science, since it is the influence of a researcher on a study both in the way data is collected and the fitting of the data with the theory adopted. This sort of validity problem seems to be unavoidable because of the impossibility of isolating researchers from their own beliefs,

values and perceptions towards the phenomenon in question, and as noted by Lincoln and Guba (1985), research bias can reduce trustworthiness among a research sample.

Reactivity reflects the researcher's presence in his research, being evidenced in the extent to which a researcher interferes with the phenomenon being studied. Reactivity or researcher interference is a concern in quantitative research rather than qualitative research. Tharenou *et al* (2007) argue that researcher interference appears clearly in experimental research design where variables are controlled by the researcher. However, contrastingly, in qualitative research as variables operate normally in their natural settings, the risk of researcher interference is minimised. Moreover, long engagement with the participants involved in the process being studied allows a researcher to develop a trusting relationship with them and this in itself can reduce the reactivity (Merriam, 2001).

Validity in quantitative research is associated with the accuracy of the measurement used to judge whether research is valid. However, in qualitative research, it is impossible to measure validity accurately or indeed to repeat a study in exactly the same way, since such research deals with the meaning of phenomenon in their social and cultural contexts and deals with behaviour and feelings. Another concern with the measurement of validity arises when a

researcher builds measurement on misleading information as for example, when a researcher conducts research using an online interview as a method of collecting data and a participant lies about demographic issues (age, gender, marital status, education level, etc.). Questions can be posed, therefore, as to what extent the results of such research reflect the reality.

Generalisation in Qualitative Research

As indicated previously, generalisation in qualitative research is a challenge because of the limited samples that are usually used. However, qualitative researchers are keen to be able to generalise from their findings so that their efforts can be beneficial. For example, qualitative findings can be valuable in helping to make predictions, especially with issues related to public policy and practice, as in education, and in fostering debate about certain issues such as those examined in this thesis.

According to Payne and Williams (2005), there are two kinds of generalisations, these being statistical generalisation and *moderatum* generalisation. The first is widely used in quantitative research when statistical data can be generalised from a large sample to a universe, whereas the second operates when a researcher is able to take into account different times, places, and social conditions, and still make a generalisation of applicability.

Guba and Lincoln (1989) prefer the term transferability instead of generalisability in qualitative research, arguing that such research is mainly based on developing a theory rather than on a result derived from a sample that can be passed to other cases. Maxwell (2005) raised the issue that, although there are two kind of generalisation in qualitative research - internal and external - a qualitative researcher is less concerned with the latter and more interested in investigating a single social unit rather than the entire society. Moreover internal generalisation is one of the most important objectives of qualitative research where a researcher attempts to generalise findings within a given setting or group.

It is fact that the results of a case study can be generalised to similar cases. For instance, if the aim is to develop teaching skills through a sample of teachers in one particular country, the outcomes can, be generalised, to some extent, to another society, whilst recognising the differing prevailing conditions. Hitchcock and Hughes (1995) added that useful generalisation capability can be achieved in qualitative research by obtaining rich data, and by the researcher's personal motivation in wanting to be able to generalise. Indeed, the purpose of a literature review is to show what has been generalised so far.

Summary

This chapter has given a full description of the research process undertaken in this study, and provided a rationale for all steps and choices within that process. It has highlighted that the research sample consists of 2209 first year students in four case study universities in different parts of Libya, and that the samples of students are homogenous allowing for a concentration on specific academic disciplines. Issues such as validity and reliability, ethical considerations, and the ability to generalise have all been discussed in the interests of demonstrating the academic rigour of the methodology employed.

The following chapter presents the quantitative data from the questionnaire, discusses and analyses the findings according to the responses to the questions asked in the questionnaire.

Chapter 5.

QUANTITATIVE DATA

Introduction

This chapter represents the first of two analytical chapters considering the data obtained from the field study. Its focus is on the quantitative exercise and it provides an overview of the characteristics of the study sample, as well as presenting the results from the questionnaire. The data presented in twenty one tables that concentrate on student distribution according to age, gender, structure of students' families, distribution of students according to their choice of subjects, parent educational and occupational levels, first choice of subject, reasons for this first choice, and the impact of religion on the choice.

Age

Table 5-1 Student Distribution by Age Categories

Age Categories	Number	%
16 years	1	0.04
17 years	245	11.09
18 years	1,850	83.74
19 years	113	5.11
Total	2209	100

Age is undoubtedly, a very important factor in the educational process. It reflects the respondent's accumulated experience and knowledge about life, and is relevant to his/ her aspirations and expectations. It is a pivotal variable in that it is connected with a person's needs and motivations. The majority of the study sample is based on the category of 18 year olds who represents 83.74% of the sample with 5.11% of the sample being accounted for by the 19 year old category. The distribution mode concentrates on the category of 18 year olds as 18 is the normal age of entry to the university. Students in the 17 year old category represent 11.09% of the sample, a feature which could be due to early enrolment in primary school. In contrast, the category of students whose age is 19 years and over incorporates those who have experienced failures at the progression stages of their educational career and thus, repeated years, and those

who entered the education process later than the usual age, and many of these students are expected to be either residents of villages or rural areas. There is also one further category, that relating to one 16 year old student, which represents an exceptional case, possibly because this person was educated in a private school at the primary education stage and was allowed to enter that school under the legal age of educational enrolment.

Gender

Table 5-2: Student Distribution by Gender

Gender	Number of Students	%
Male	965	43.70
Female	1,244	56.30
Total	2,209	100

As can be seen from Table 5.2, the total population of the sample was 2,209 students from the four universities studied. Slightly over half of the sample (56.3%), were female, and 43.7% were male, reflecting the fact that Libyan Higher Education provides equal opportunities and also confirms the interest of Libyan females in HE.

Student Choice by Number of Male Siblings**Table 5-3: Student Choice by Number of Male Siblings**

Specialisation	Medicine		Engineering		Sociology		English	
	No	%	No	%	No	%	No	%
None	37	6.8	37	7.17	17	3.13	21	3.52
1	81	14.62	71	13.67	32	5.89	41	6.88
2	115	20.76	86	16.76	64	11.74	91	15.77
3	125	22.20	152	29.46	70	12.89	121	20.31
4	109	19.67	79	15.31	84	15.47	55	9.23
5	54	9.75	61	11.82	120	22.10	106	17.78
6 and more	35	6.32	30	5.81	156	28.73	161	28.01
Total	554	100	516	100	543	100	596	100

This variable refers to the number of male brothers of a student, who share the same household unit. It indicates the size of the family burden and hence, the family commitments. This is an important feature since it can either impose restrictions on an individual's choice of specialism, and/or affect a student's motivation for a particular specialisation.

This variable ranged in value from zero to six or more members as can be seen in Table 5.3. It is assumed that the male children in a family will effectively have more freedom to choose a subject, even if that additional freedom only arises from the fact that those children will be able to study away from home. As seen

in Table 3.5, 22.2% of Medicine students have families with three males whereas the percentage of Engineering students with three males in their families is 29.46%. This means that if a student has three brothers, he tends to join either science or Engineering subjects. The eldest son is expected to be an example for his brothers and he, therefore, receives much attention from his father. It is obvious that whenever there are six or more brothers, the tendency toward Medicine and Engineering courses becomes less, and this is reflected by the figures for Medicine and Engineering specialisations, which are 6.32% and 5.81% respectively.

This inverse relationship that governs the number of brothers in one family and the choice of either Medicine or Engineering may lead the family to select only one brother to join either of these two courses. Ironically, the choice of Sociology and of English language is connected to families of six and more brothers. The percentages that have such a big family composition in Sociology and English amount to 28.73% and 28.01% respectively. On the contrary, there is a steady relationship between the number of brothers per family and the tendency to join literary courses since 28.73% and 28.01% of students (as shown in table 5-3), in Sociology and English language respectively, have six or more brothers. Whenever the family has few sons/daughters there is a preference for science courses. When brothers exceed four, they tend to opt for specialisations

that have a lower overall expenditure associated with them, and that includes a consideration of the length of study, that is courses of a shorter length are more attractive as the students can get into the employment market sooner and assist their fathers in providing for the family. Summing up this variable, therefore, it can be said that the number of brothers a student has, has a definite effect on the choice that student makes in HE.

Student Choice by Number of Female Siblings

Table 5-4: Student Choice by Number of Female Siblings

Specialisation	Medicine		Engineering		Sociology		English	
	No	%	No	%	No	%	No	%
None	53	9.57	79	15.31	102	18.87	33	5.54
1	91	16.43	83	16.09	72	13.26	126	21.13
2	103	18.59	95	18.41	105	19.34	99	16.60
3	111	20.04	113	21.90	105	19.35	154	25.84
4	85	15.34	61	11.82	86	15.84	59	9.39
5	65	11.73	41	7.94	70	12.84	104	17.45
6 and more	46	8.30	44	8.53	37	6.82	26	4.35
Total	554		516		543		596	

This variable refers to the number of female **siblings in** one household unit who share one social and economic life. Its importance lies in its highlighting of the family's burdens and commitments as well as any gender gap that might be

present. It raises the question to which a fathers treat his daughters on an equal footing with his sons.

Table 5.4 demonstrates that the families of 20.04% students in Medicine, 21.90% students in Engineering, and 25.84% students in English, have three sisters. This runs parallel to what exists in the case of males in Medicine and Engineering. However, the situation differs in respect of literary courses, this is the result of the gender-gap that characterises Libyan **culture; it welcomes** an increase of males and pays more attention to them at the expense of females. Generally, the fewer sisters, a female student has, the more that student can pay more attention to her choice of a particular specialisation. Consequently, the **categories** of students who have six or more sisters are less interested in any specialisation. This category represents 8.3% in the Faculty of Medicine, 8.53% in the Faculty of Engineering, 6.82% in the Sociology Department, and 4.25% in the English Department. In this respect, there is conformity between the results of males and females in terms of Medicine and Engineering, but considerable difference in respect of Sociology and English. The more sisters a student has, the less that student is likely to discriminate among specialisations.

Student Choice by Father’s Education

Table 5-5: Student Choice by Father’s Education

Specialisation	Medicine		Engineering		Sociology		English		Total	
Father’s educational level	No	%	No	%	No	%	No	%	No	%
Illiterate	23	4.15	19	3.68	41	7.55	58	9.7	141	6.4
Primary Education	33	5.96	21	4.07	105	19.33	97	16.3	256	11.6
Preparatory Education	42	7.58	66	12.8	93	17.13	77	12.92	278	12.6
Secondary Education (intermediate)	144	25.99	72	13.95	139	25.6	141	23.66	496	22.4
University and above	312	56.32	338	65.5	165	30.39	223	37.42	1038	47
Total	554		516		543		596		2209	

Education is a process through which knowledge and skills are acquired in a way that, for instance, enables the individual to perceive correctly his/her problems and find solutions to these. This education enhances the development of a community and society. In Libyan society, educated fathers are expected to actively help their sons and daughters to choose academic routes, for example, Medicine, teaching and law.

The results showed that nearly half the fathers of all students in the study sample had a university degree, and some held higher degrees. In contrast, the proportion of illiteracy among fathers was **low; the** highest percentage of illiterate fathers

not exceeding 9.7% among students of the English language specialisation. This fact is a reflection of two features: the first being the growing rate of education in Libya, and the second, the direct relationship, assumed between the father's level of education and the student's choice of academic subject at University. The lower the father's level of education, the less paternal participation occurs in his son's/daughter's subject selection process at university.

The low percentage of students in Medicine and Engineering was found when the father's education level was low. This low level of education limited the fathers' vision to chart a future academic career for their childrens. The same applies to students of Sociology and English language, where the father's education level does not exceed the primary educational level. In a quarter of the latter two specialisations, the fathers were either illiterate or of primary education, whereas this ratio was lower in the case the fathers of students in Medicine and Engineering, which amounted to 10.10% and 7.75% respectively. One theoretical implication that can be derived from this result is that the low educational level of fathers makes them unqualified to demonstrate the value of choice to their children although they have ambition for their children's future. When fathers have obtained higher education, university or above, they are more inclined to encourage their children to follow the scientific disciplines. For

instance, in the case of Engineering students, more than 65.5% of fathers had either undergraduate or postgraduate qualifications. It is noticeable that students whose father obtained better education were enrolled on scientific courses rather than literary ones, such as Sociology and English language.

Student Choice by Mother's Education

Table 5-6: Student Choice by Mother's Education

Specialisation	Medicine		Engineering		Sociology		English		Total	
	No	%	No	%	No	%	No	%	No	%
Illiterate	12	2.1	22	4.3	31	5.7	37	6	102	5
Primary Education	11	1.9	9	1.7	21	3.9	29	5	70	3
Preparatory Education	83	15	41	8	62	11.4	73	12	259	12
Secondary Education (intermediate)	281	51	192	37	191	35.2	201	34	865	39
University and above	167	30	252	49	238	43.8	256	43	913	41
Total	554		516		543		596		2209	

From Table 5.6 it can be seen that the percentage of illiterate and primary educated mothers of students does not exceed 8%. This gives a positive indication regarding the dropout rate of illiteracy among mothers in this sample,

and the result can be generalised, as an indication of **equality** of educational opportunities between males and females. Secondly, the three first categories in Table 5.6 (illiterates, **primary** and secondary education mothers) are remarkably **low when compared** with those who received university level and above education, which accounted for more than three quarters of the sample.

In general, it is noted that the number of students increase with the rising educational level of Libyan mothers. This highlights the upsurge of interest among mothers to encourage their children to continue their higher education. As for the relation between the educational level of the mother and the type of specialisation is concerned, it is noted that more than half of the mothers of medical students fall into the category of mothers with secondary educational level. This is probably due to their inability to continue in education and to gain access to university, so they are keen not only that their children study in higher education, but also motivate them to study the most difficult disciplines and those most appreciated in the community.

With regard to mothers who have a university degree or above, it is noted that, nearly half of mothers of Engineering students are in this category, while the percentage dropped slightly in the disciplines of Sociology and English to reach

43%. This could be the result of maternal awareness of the need for university study regardless of specialty.

Student Choice by Father's Career

Table 5-7: Student choice by Father's Career

Specialisation	Medicine		Engineering		Sociology		English	
	No	%	No	%	No	%	No	%
Management	88	15.9	83	16.08	220	40.5	157	26.34
Businessman	87	15.7	73	14.15	113	20.8	160	26.8
Physician	125	22.56	86	16.10	91	16.7	98	16.44
Teacher	112	20.22	89	17.82	81	15	28	4.9
Engineer	73	13.17	128	24.81	12	2	34	6.54
Other	69	12.45	57	11.04	26	4.7	113	18.44
Total	554		516		543		596	

A society often shows its appreciation and respect toward its members according to their social status, and a career is one of the most important ways in which a person can acquire such a status. For example, if someone occupies a position of high rank such as being a doctor or an engineer, the community attaches great importance to him/her. Hence, parents give great consideration to the decision regarding their children's choice of subject.

The data shows that for the majority of the students' fathers, the dominant professions are administrative, followed by private business occupations, physicians, teachers, and engineers, respectively. It is a fact that each career has its own prestige. The study hypothesises that the father's career affects the choice of his son's future career. It is evident from Table 5.7 that the medical career is the most effective specialty in this respect. The fathers of 22.56% of medical students are physicians. In the same specialism, teachers are ranked next with 20.22% of medical students having fathers who are teachers. On the other hand, the percentage of medical students whose fathers are in management and business careers is low (15.7% - 15.9%) when compared to those whose fathers are teachers or engineers. Teachers are aware of the advantages of education. Thus, they are high statistically.

The socialisation process cannot be ignored in this respect since it is clear, that in the case of Medicine, doctors try to persuade their **children to follow their** example, and try to create or develop within them, a strong sense of the importance of medical careers. In addition, medical students have observed individuals and the community at large harbouring good feelings and respect towards their doctor fathers. Teachers, whose sons and daughters are engaged in medical studies, highly appreciate the excellent value of science and their

children's ability to join medical school. Moreover, enrolment in medical school is also an indicator of a father's success in fulfilling his parental duty. Businessmen are less effective in persuading their children to join the Faculty of Medicine.

A tendency for children to follow their father's profession was also apparent among students in the Faculty of Engineering, where around a quarter of students' fathers were found to be engineers themselves. Smaller numbers of Engineering students (17.82% and 16.1%) had fathers who were teachers and physicians. Fathers of 16.08% and 14.15% of students in the Faculty of Engineering were managers or businessmen respectively. Workers who were least likely to have children following the Engineering career were identified as those either doing unskilled jobs or nomads, or accounted for 11.04% of Engineering students. The process of parental guidance in respect of Engineering demonstrates that fathers who are engineers are able to articulate and describe the luxuries and advantages enjoyed by engineers, whereas businessmen, believing that the power of capital is the future, and private business is a good guarantee of their children's future, have no time to discuss subject choice with them.

Students whose fathers are working in managerial occupations are more likely to choose a social science, in particular, Sociology. In respect of Sociology students, the distribution of parental occupations was: managers 40.51%, private business 20.8%, physicians 16.7%, teachers 15% and other sundry careers 4.7%.

Fathers who were engineers were least likely to choose Sociology as a specialisation for their sons and daughters, whereas those in managerial occupations preferred this specialisation. For, whilst they were aware that a Sociology major would place their children in jobs where they would earn less income, in comparison with other specialisations, less time and effort is involved in undergraduate study. This is an interesting perspective since in Libya all education is free, and consequently, parents have no worries about the cost and length of university courses, other than in circumstances where it is desirable for a student to assist with family expenses as soon as possible. It would seem, therefore, that these parents perceive their current sedentary occupations as comfortable and feasible for their children to progress to, and that they choose the Sociology specialisation it could be that they are realistic about their children's ability, and because the course is available in the area where they live.

In the English Language Department, of all the students' fathers, 26.8% were businessmen, 26.34% were administrators, 18.44% were in sundry occupations, while 16.44%, 6.54%, and 4.9% were physicians, engineers, and teachers, respectively.

The large proportion of English language students whose fathers work as managers and businessmen is a reflection of the reality that English has become increasingly a pre-requisite of the labour market in both the public and private sectors. In the public sector, English language ability is a priority for any student aspiring to do administrative/managerial work, while in the private sector English language assumes prominence because of the burgeoning links with overseas business and the need for an international language. It is a father's responsibility to find a suitable job or at least to involve his son in his work, and the possession of an English language qualification can facilitate such employment.

The study demonstrates that many fathers definitely exercise influence over their children in order that they proceed into the same career as them, or into the same overall area of employment.

Student Choice by Mother's Career**Table 5-8: Student Choice by Mother's Career**

Specialisation	Medicine		Engineering		Sociology		English		Total	
	No	%	No	%	No	%	No	%	No	%
Management	52	9.39	43	8.33	61	11.22	94	15.77	250	11.2
Teachers	132	23.83	96	18.61	84	15.47	190	31.88	502	23
Physician	36	6.50	17	3.29	45	8.28	65	10.91	163	7
Engineer	19	3.43	18	3.49	49	9.02	73	12.25	159	7
Housewives	264	47.65	309	54.89	254	46.71	143	23.99	970	44
Other	51	9.20	33	6.39	50	9.20	31	5.20	165	7.8
Total	554	100	516	100	543	100	596	100	2209	100

The data in Table 5.8 shows the distribution of mothers' careers. More than 50% of the students had mothers who were in professional careers, whilst around 44% of mothers were housewives. This latter finding is not surprising given that almost three quarters of the student sample lived in rural areas. Secondly, it is still held in certain sections of Libyan society that a woman's role in life and, indeed, her duty, is to bear children and look after them. At the same time, in rural communities, which are more traditional than the urban ones, females are still prevented from participating in work outside the home. The gender issue in Libya is evident in that more than half of females are housewives or teachers,

thereby signalling that their time is always spent in close proximity to their homes. It should be understood, however, that in Libya, being a housewife does not imply that a woman is illiterate or unskilled. This may be the case in particular circumstances, but as Table 5.8 indicates, the mothers' occupational status is as high as that of the fathers. This factor is assumed to play a role in choosing the academic subject for their children.

Teaching was the most popular career held by mothers with nearly a quarter of the study sample having mothers who were teachers without distinguishing whether they were primary or secondary teachers. This was followed by 11.2% of students' mothers who were employed in management positions, and a further 7% qualified and working as doctors, engineers and in other professional fields. Interestingly, however, it is noted that nearly half of the mothers of students of Medicine and Sociology were housewives, and more than half of mothers of Engineering students were also housewives. It is not possible to draw any logical inference from this phenomenon, for instance, a strong desire for females is for their children to become professionally qualified, or indeed, to enable them to become upwardly socially mobile. However, a third of the students specialising in English had mothers who were English language teachers and this does indicate some transfer of information and encouragement from mothers to pursue

this qualification. Medical students were next, with almost a quarter of them having mothers who were. Surprisingly, the impact of mothers in the medical and Engineering professions to persuade their children to take on similar courses is very low. **This may be because of the intensity of work in these professions that keeps mothers away from home.**

Teaching mothers clearly based their decisions to influence their children on the fact that graduates of English are destined to become teachers, a career that in Libya is seen as suiting the nature of females. However, as already mentioned, the English language has received renewed attention in the face of demand of labour in the private sector. As also seen from Table 5.8, 23.99% of English language students had mothers who were housewives, 5.2% had mothers who were in unskilled professions, and 10.91% medical doctors.

The study suggests that a mother's occupation as a housewife or as a teacher is the most effective determinant of a child's future in all specialisations whereas mothers who are engineers or in the medical profession seem to have the least influence. It seems that students who have mothers who are full-time housewives are encouraged to go into particular specialisations, whereas those whose mothers are themselves professional, are allowed to choose for themselves.

Student Reasons for Going to University

Each individual has expectations and aspirations to achieve a decent standard of living, and higher education is arguably one of the avenues that can help a person to attain this goal, providing at the same time, opportunities for personal development and fulfilment. Such understanding leads young people to continue their secondary education and progress into higher education, in the belief that a university degree will facilitate their entry into the employment market, help them to get good jobs and high income, and bring distinguished social prestige

Table 5-9: Student Reasons for Going to University

Reasons	Number	%
To get a job	708	32.05
Fulfilling my parents' desire	160	7.24
To get a certificate	137	6.20
To develop my knowledge	526	23.81
My friend chose that	18	0.81
Really I did not know why	36	1.63
Society respects university graduates	305	13.81
I have no other choice	78	3.53
To continue postgraduate studies	241	10.91
Total	2209	100

From Table 5.9 it can be seen that approximately one third of the students in the sample justify their entry into university purely as a means to an end. A quarter of the students consider their entry primarily as a means to developing their knowledge and overall educational background. A very small percentage of the sample (6.3%) enrolled at university in response to their parents' wishes, thereby signalling respect for their parents, which as discussed is an integral part of the Libyan culture. Social prestige stands as another reason for enrolling in HE since as mentioned earlier, university graduates enjoy a high level of respect and status within their communities.

In addition, university students feel obliged to acquire a qualification to satisfy the aspirations of their families and communities in a bid to reduce social distance. Teenage and peer groups influence both individuals' desire to join a university, and their choice of subject specialism, since they often have firm ideas about what careers will provide them with the best overall standard of living, which takes into account the variety of rewards for graduates just mentioned. Clearly, one of the main reason for entering HE is the belief that it will ensure a decent future by providing qualifications that are sought after in the labour market. Given this finding, it is ironic that the rising unemployment among graduates in Libya actually forces many such young people to accept any job offer, even if the work entailed is far from their specialisation. Nonetheless, this actuality is not sufficient to deter young people from progressing into university because the same social forces apply, and the cultural imperatives within Libyan society for upward social mobility outweigh the personal preferences for working in the field for which one is qualified.

Disjunction between Desired and Actual Specialisations

Table 5.10 shows the total number of students in the sample distributed across the four subject areas, and additionally provides data regarding how many of the students in each subject area are studying the subject they originally wished to

study, and how many are enrolled on subject specialisms that do not reflect their original choices.

Table 5-10: Disjunction between Desired and Actual Specialisations

Description	Medicine		Engineering		Sociology		English		Total	
	No	%	No	%	No	%	No	%	No	%
My current study matches my initial desire.	536	96.75	501	97.09	131	24.12	561	94.13	1,729	78.27
My current study is not compatible with my initial desire.	18	3.25	15	2.91	412	75.88	35	5.87	480	21.73
Total	554		516		543		596		2,209	

From Table 5.10 it can be seen that 1,729 students (78.27% of the sample) are attending their desired courses as there is no contradiction between their initial choice of subject and the course on which they are enrolled. It can also be seen that the four subject specialisms differ in the extent of the contradiction between students' initial choices and actual courses.

Students in the Faculty of Engineering are the least compromised in this respect (97.09% agreement), those in the Faculty of Medicine follow (96.75% agreement), and then students of English language (94.13%). This seems to indicate a high degree of student satisfaction with their original desires and the actuality of their current situation. However, in respect of Sociology students, the picture is completely different. Only 24.12% confirming this specialism as their

original choice, a reflection of the fact that this subject functions as a shelter for a student who has failed to gain entry onto a preferred course of study. These students stated that studying Sociology represented the best way for them to obtain a university certificate, and that this particular outcome was more important to them than the specialisation.

The discrepancy is less visible for the specialisations of Engineering, Medicine, and English language partly because the parameters of the market labour and the real demand for students with these talents was quite evident. Additionally, students enrolled in these specialisms participated in in-depth preparatory courses at the secondary education stage. This runs counter to the situation experienced by Sociology students, who invariably ended up in that specialism because their performance at the secondary education stage was not good enough for them to undergo preparation for these branches of science or languages. In that circumstance, a student is ineligible to apply for Engineering, Medicine, or English because s/he does not possess the requisite amount of background knowledge from which to progress to HE, nor does s/he apparently have sufficient aptitude to do this. Moreover, a candidate in Sociology, whether having initially chosen Sociology or had been directed along that route as a second or third choice, is not able to receive any preparation in secondary school.

This preparation is not available to them. However, in the case of Medicine and Engineering, students have the opportunity to study subjects that directly link with their undergraduate curriculum. Hence, Sociology students encounter some shocks in the university curriculum, which are nonetheless surprising, irrespective of whether they want to study Sociology or not.

Student Preference for Other HEIs than University

Not all students believe that university is the best route to achieve their academic aspirations; therefore, they would rather attend other HE establishments. An indication of the feeling in this respect among the students in the sample is given in Table 5.11, which shows that whilst the overwhelming majority (91.26%) did want to enrol in the university, 8.74% were not interested in university education, and found themselves there through other pressures. Undoubtedly, as discussed already, university education is regarded as the first choice for the majority of the respondents as it is the most prestigious of the HEIs, and university graduates enjoy superiority over graduates from Libya's other academic institutions (Technical Higher, and Professional Higher). Socially and economically, therefore, all university graduates should be better off than other graduates since they earn greater income and attract greater prestige.

Table 5-11: Student Preference for other HEIs than University

Preference for other HEIs	Number of students	%
Yes	193	8.74
No	2016	91.26
Total	2209	100

In addition, universities provide a wide variety of courses which, theoretically, should appeal to the whole range of student desires. (See Table 5.9 for reasons why students chose to enter university).

Reasons for Not Wanting to Enrol in University

Although enrolling in university education was at the top of the list, students did have other options available to them, and Table 5.12 shows the four choices made by young people. Firstly, large percentages of students find the business world appealing and turn their back on further education as unnecessary. They represent 79.27% of the sample and are so great in number because the business sector in Libya is thriving and presents opportunities for earning money immediately, making the need to acquire educational qualifications irrelevant.

Table 5-12: Reasons for Not Wanting to Enrol in University

Reasons	Number of students	%
More advantages at an HEI	24	12.44
Wanting to remain at home	9	4.66
Private Business	153	79.27
Going abroad	7	3.63
Total	193	

The second most popular option is to join a higher educational institution, 12.44% of the sample having chosen this option. This option is often deemed appropriate since HEI courses last for three years rather than the potential seven years required for the study of professional specialisms, such as Medicine. The third option was to remain at home, and was chosen by 4.66% of the sample. Arguably, this alternative is more appealing to females more than boys, as females are expected to get married at an early age, which in turn leads them to leave education and look after their new family. Moreover, remaining at home can be the only option because of the lack of transportation between the university and a student's home, particularly in rural areas. And another reason for such choice may be that a female student cannot find her preferred academic subject at the university in her home area.

The last option was expressed by 3.63% of the sample and represents young students who wish to travel abroad. It is likely that such motivation is fuelled by the need to learn or improve a foreign language and further their understanding of other cultures. A key reason for this group of students wanting to travel abroad, as indicated in the interview in particular, is the fact that in the Libyan educational system, foreign languages are taught without any reference to the actual cultural life of their native speakers. Students see this as a disadvantage, therefore, their desire to experience the language in its natural context.

Distribution of Students According to their First Educational Choice

As shown in Table 5.10, there were 480 students who were enrolled on programmes that were actually not their first choice of subject discipline. Table 5.13 presents eight different subjects that were the first choice for some students before they eventually enrolled in their current subjects. From Table 5.13 it is clear that Computer Science was the most popular and desirable subject, with 27.08% of the sample revealing this as their first choice. This is not surprising because this particular discipline opens up employment opportunities in many different fields within the labour market and is definitely an area where jobs will continue in the future since technology is continuing to evolve.

Table 5-13: Distribution of Students According to their First Educational Choice

Specialisation	No.	%
Computer	130	27.08
Economics	103	21.46
Dentistry	24	5
Design Engineering	39	8.13
Arts	78	16.25
Law	28	5.83
French Language	35	7.29
Political Sciences	43	8.96
Total	480	100

The second choice after computer studies was Economics, which 21.46% of the sample preferred. This demonstrates the common trend towards a subject that is required in the labour market. The third preferred choice was Arts, for which 16.25% of students expressed a preference. Smaller percentages (8.96% and 8.13% respectively) reported Political Sciences and Design Engineering as their first choice. Whilst Design Engineering was a fairly low percentage, this is a relatively new discipline and the demand for it is on the increase. In respect of Political Sciences, the students involved had wanted to participate in political work or to represent their country abroad as a diplomat. In the case of both of these courses, however, the problem occurs that they are not yet fully embedded within HE provision in Libya so these disciplines are not available in all

universities, and consequently, those students who, for whatever reason, were unable to travel, were forced to choose alternative subjects.

The French Language was another subject preferred by 7.29% of the students. French is not commonly used in Libyan society and, hence, there are low levels of skill in this language, but since the removal of sanctions on Libya by Western countries, graduates of French have enjoyed an advantage in the job market working for foreign companies. Moreover, given the existing demand for skilled French speakers, French is chosen because it gives students an opportunity to continue their academic postgraduate study. Surprisingly, the percentages of students who had initially wanted to pursue courses in law and dentistry were low, a fact that may well reflect the need for a certain amount of material wealth on graduation since, once qualified, lawyers and dentists require physical premises for their practices. In addition, more time is needed to gain a reputation and to become properly established before they can earn a reasonable income.

Motivations for Changing to Second Choice Subjects

As shown in Tables 5.10 and Table 5.13, 480 of the student within the sample changed their initial academic subject choices and enrolled on other courses, and Table 5.14 provides insight into their motivations for doing this. With regard to medical students, the main reasons for change were essentially pressure from their parents, the non-availability of their preferred specialisation in a local university, and finally the influence of friends.

Table 5-14: Motivations for Changing to Second Choice Subjects

Reasons for the change of specialisation	Medicine		Engineering		Sociology		English	
	No	%	No	%	No	%	No	%
Friends	13	15	21	30	5	11	10	30.3
Father's desire	26	31	7	10	2	4	7	21.2
Specialisation is not available	17	20	15	22	9	19	4	12.1
Mother's choice	29	34	9	13	11	23	3	9.1
Difficulty of specialisation	-	-	-	-	-	-	-	-
Low score	-	-	17	25	20	43	9	27.3
Financial circumstance	-	-	-	-	-	-	-	-
Total	85	100	69	100	47	100	33	100

The family dimension clearly emerges as powerful since students do seem to readily make decisions about their future lives in response to parental wishes. In fact, in Libyan society, following the wish of parent is sacred, even if this goes against one's own desire. Some may even perceive such action as a part of worship, and from one perspective it can be seen that students are easily reconciled in such circumstances, accepting the inevitability of their duty. When a course is unavailable in the local area, however, a different dilemma is experienced because for some students an element of choice still remains – that being whether to leave home if this is permitted, or whether to stay and reconsider the choice of career.

Friends also function as an influential element in this matter, but they did not constitute a high percentage. The power of friendships cannot be underestimated, since as already noted, peer group influence is strong in Libya because of the general collective communal orientation.

With regard to the Engineering students, their motivations for changing their original ideas and switching to Engineering were the same as for the medical students. However, another factor did emerge, that is being the low achievement of some students at the secondary stage, which may have lead them to choose Engineering rather than Medicine as the latter requires higher entry grades.

The factors that influenced students of Sociology to change specialisation were as follows: mothers' choice, father's desire, low scores, and the non-availability of their preferred subject in their local university. However, the most influential factor (and indeed for English language students as well) was the grade obtained at the secondary stage. Thus, this revealed that many students enrol in these departments because of their failure to obtain the required grade for other courses. This is emphasised by 43% of the students in Sociology and 27.3% of English language students.

Although the students of Sociology were influenced mainly by the views of their mothers, English language undergraduates were less affected by their mothers' opinions. Table 5.14 shows that 21.2% of English language' students were influenced by their fathers' desires, to change their choice, but this percentage decreased substantially to only 4% among Sociology students.

Overall, the justifications provided by students for abandoning their preferred subject discipline are self-explanatory in Table 5.14, but the impact of each factor varies from department to department.

Distribution of Specialisation According to Distance from Home to University

The distance between the student's home and university is assumed to play a major role in determining that student's educational preference and even his/her entry into university. It has already been demonstrated that in Libya the demands of social solidarity and of tribal relations are serious enough to adversely affect the choice process by persuading students to opt for specialisms that they personally do not favour. **Indeed, by creating expectations in certain, predominantly rural areas, those females have a role in the home rather than in employment.** These expectations within Libyan society suggest an inverse relationship between type of specialisation and the distance to the student's local university.

Table 5-15: Distribution of Specialisation According to Distance from Home to University

Distance between the university and students residence in km	Medicine		Engineering		Sociology		English	
	No	%	No	%	No	%	No	%
From 1 to 12 km	317	57.22	331	64.15	338	68.56	381	63.93
From 13 to 24 km	81	14.62	71	13.76	123	24.95	102	17.11
From 25 to 36 km	43	7.76	21	4.07	21	4.26	37	6.21
37 km and more	113	20.40	93	18.02	11	2.23	76	12.75
Total	554	100	516	100	493	100	596	100

Based upon data in Table 5.15, and the foregoing discussion, the following conclusions seem justified. More than half of the students in the sample live near their universities, and with some courses, the further away students live from the university, the fewer enrolments there are. This latter point does not hold true for medical and Engineering students, however, since the remoteness of the university from their home does not affect the student's choice to study these subjects. In these specialisms, 20.4% and 10.02% of students respectively live more than 36 km from their home fall into the category that lives 37 km or more for from their residence. This runs contrary to the situation with Sociology courses. However, the percentage of students in English courses who live at a distance from their universities is relatively high. This is perhaps because of the obvious benefit of learning a foreign language, and the fact that in many of the new language colleges, the staffing and resource capabilities are still developing and links with overseas colleges are not yet formed. Hence, students who wish to study English are prepared to travel to follow a course at a well-established, and properly equipped university with existing links overseas that allow students to travel as part of their course and experience the language spoken in its cultural context.

Distribution of Students According to Religious Influence on Subject Choice

Research over the past few years discussed in the literature reviews chapter suggests that individuals’ cultural beliefs, which usually embrace religious concepts, affect their vision of their future lives. Basically, it is believed that this fundamental identity created in consequence of cultural beliefs operates as an effective filter when making decisions about future lifestyles, and hence careers and educational programmes. This is especially the case in respect of Arab and Islamic societies.

Table 5-16: Distribution of Students According to Religious Influence on Subject Choice

Categories	No.	%
Religion was influential when deciding upon my specialisation	111	5
Religion was not influential when deciding upon my choice of specialisation	2098	95
Total	2209	100

In investigating the influence or otherwise of religion on the research sample, students were classified in one of two categories as indicated in Table 5.16. From Table 5.16 it can be seen that students either believe religion to have been influential in their choice of specialism, or that religion played no part whatsoever in the decision. In fact, it emerged that whilst none of the four specialisations was directly related to religion or Islamic study, a small minority

of students (5%) did believe that religion played some role in their eventual subject choice. Conversely, an overwhelming majority of 95% of students did not consider they had been influenced by religious imperatives when making their academic choices.

Motivations for Students' Subject Choice

Table 5.17 reveals a consensus among medical students that their main reason for choosing this specialisation was to comply with their families' wishes. High percentages were reported in this respect: Gharyounis – 92%, 7th October – 94%, Sabha – 96%, and Aljabal Algharbi – 79%.

The previous high academic achievement ranked as the second most frequent reason, essentially confirming that because students had obtained 90% or higher in the General Secondary Certificate (A level) as required by the Ministry of Higher Education for entry to medical schools, they were taking advantage of their ability to do so. As indicated by Table 5.17, the percentages in this response category were 65% at Gharyounis, 70% at 7th October, 87% at Sabha, and 68% at Aljabal Algharbi.

Table 5-17: Motivations for Medicine

Specialisation Name of university	Faculty of Medicine							
	Gharyounis		The 7 th of October		Sabha		Al-Jabal Algharbi	
Reasons	No	%	No	%	No	%	No	%
Personal interest	97	48	86	79	61	65	93	62
Achieving the required score	132	65	76	70	87	93	101	68
Family interest	187	92	103	94	89	96	118	79
Friends	11	5	8	7	-	-	-	-
Achieving excellence in specialisation	37	18	31	28	17	18	33	22
Better job opportunities	78	38	61	56	33	35	29	19
Don't know	-		-	-	-	-	-	-
Material gains	63	31	55	50	31	33	67	45
Total	203		109		93		149	

Personal interest can also be considered as equally important since approximately 80% of the total number of students at 7th of October, and 65% and 62% of students at Sabha and Aljabal Algharbi universities respectively, emphasised the relevance of this factor. Interestingly, the low influence of friends on the decision-making process in respect of Medicine is revealed by the percentages which ranged from only 5% at Gharyounis to 7% at 7th October universities, and were recorded as zero among medical students at Sabha and Aljabal Algharbi universities.

The known job opportunities available for doctors were cited by students as another reason for the choice of specialism with 19% of students at Aljabal Algharbi, 38% at Gharyounis, 35% at Sabha, and 56% at 7th October universities respectively, stressing the significance of having such a professional career. Clearly, there are substantial variations between the feelings of students at Al-Jabal (19%) and 7th October (56%) universities, perhaps a reflection of the greater need for physicians in the Misratah area.

At both Gharyounis and Sabha universities, students of Medicine are equally conscious of the financial returns of Medicine as a specialisation. This view was emphasised by one third of the whole sample with the percentages of medical students who made this claim in Aljabal Algharbi and The Seventh of October universities actually reaching 45% and 50% respectively. Clearly, students in The Seventh of October were much inspired by the profession as a high earning one, given their responses to this particular reason and to the one regarding job opportunities.

Not surprisingly, all the students in the sample were fully aware of the underlying motivations for studying Medicine, and none had arrived in that position by chance.

Motivations for Engineering choice

As with Medicine, Engineering students also appeared to form a consensus in their various motivations for pursuing their specialism, with the potential job opportunities emerging as the prime reason for making this choice. However, the second most important motivation differed across universities with students in Sabha and Aljabal Algharbi universities placing family interest in this category, whilst those at The Seventh of October and Gharyounis universities believing their self-motivation came next after job opportunities (62% and 49% respectively). From this finding, it can be seen that in these two universities, students had a tendency toward being more individualistic rather than being influenced by social imperatives, represented by the family impact.

Table 5-18: Motivations for Engineering

Specialisation Name of university	Faculty of Engineering							
	Gharyounis		The 7 th of October		Sabha		Al-Jabal Algharbi	
Reasons	No	%	No	%	No	%	No	%
Personal interest	97	49	81	62	33	35	24	24
Achieving scores	28	14	22	17	37	40	26	26
Family interest	66	34	73	55	92	99	84	86
Friends	18	9	11	8	1	1	3	3
Excellence in specialisation	17	8	21	16	21	22	17	17
Better job opportunities	105	53	97	74	92	99	88	90
Don't know	-	-	-	-	-	-	-	-
Material returns	83	42	79	60	89	96	91	93
Total	196		131		93		98	

Over 90% of students at Aljabal Algharbi and Sabha universities, and more than half of those studying at The Seventh October University confirmed that the financial returns expected from the specialisation of Engineering represented the main reason for joining this specialisation, which is in line with their comments regarding the attraction of the job opportunities available to them on graduation.

These economic reasons were clearly sufficient to force the choice, as there was no influence from friends as revealed by the Table 5-19 that shows such

influence as being only 9% and 8% among students at Gharyounis and The Seventh of October universities, respectively, and only 1% at the other two.

Similar to students of Medicine, Engineering students were fully aware of why they had made their choices, and none of them had enrolled on their programmes by chance.

Motivations for English Language Choice

As with both Medicine and Engineering, students of English language also revealed some convergence in their motivations for their subject choice, with one of the most popular motives being a response to the size of the current market demand for English language ability. In this respect, 93% of Aljabal Algharbi students and 86% of Sabha students were optimistic about the specialisation because it would present them with a range of job opportunities, while a fewer number of students at Gharyounis (47%) and The Seventh of October (71%) were as optimistic. There were nonetheless sizeable proportions and the capability of English language to enable them to find good employment still ranked as the most important reason for their choice.

Table 5-19: Motivations for English Language

Specialisation	Faculty of the English Language								
	Name of university		Gharyounis		The 7 th of October		Sabha		Al-Jabal Algharbi
Reasons	No	%	No	%	No	%	No	%	
Personal interest	77	39.9	64	38	32	33	68	49	
Achieving the required score	74	38	53	32	29	30	67	48	
Family interest	86	44	77	46	63	65	85	61	
Influence of friends	61	32	41	24	33	34	18	13	
Excellent performance in the subject	23	12	11	6	19	20	10	0.7	
Better job opportunities	91	47	119	71	83	86	129	93	
Don't know	-	-	-	-	5	5	-	-	
Material returns	37	19	61	36	37	38	57	41	
Total	194		167		96		139		

Responding to family wishes represented the second most important factor encouraging students to choose the English language as a specialised academic subject. Approximately 65% of those studying at the University of Sabha justified their choice as a means by which to offer financial help for their families after graduation (i.e. their ability to obtain employment), and in Aljabal Algharbi University, the percentage was close to that for Sabha, amounting to 61%. However, the percentages in both Gharyounis and 7th October universities were lower, at 44% and 46% respectively, which can be ascribed to the fact that supply exceeded demand in terms of English graduates. Personal interest ranked

next with one third of the entire sample in the four universities referring to this as a reason for their choice of subject. It can be argued that the choice of English is a response to what has recently become the widespread application of English as a foreign language and the speed with which the student population of English language courses has increased over recent years.

Ranking next in terms of importance is financial return, although respondents did not pay this factor much attention due the fact that salaries are relatively low if they decide to become employed as teachers, rather than entering other forms of employment which require English, which they stated can be far more rewarding financially.

What was interesting was the influence of peer groups in persuading students to take up this academic subject, since two thirds of students in the English faculties at Sabha and Gharyounis universities confirmed that their choice of English came as a result of the influence of their friends. Whilst this impact appeared to be less evident in both The Seventh of October and Aljabal Algharbi universities, amounting to 24% and 13% respectively, the finding does seem to indicate that there is a growing recognition of Libya's young population that for the future generations of Libyans, English is an essential skill. Indeed, friends were often studying together, and this can create a good atmosphere for students not only to

plan their future but also for them to embark on overseas study programmes with friends, which they might not do alone.

A very small number of English Language students in Sabha University (5%) reported that they did not know exactly why they had joined the English Department. Though ambiguous and inexplicable, a common understanding seemed to prevail among the majority of students who upheld the importance of English as a global communicative medium, that the future would decide their fortunes.

Motivations for Sociology Choice

Table 5.20 is both revealing and interesting in that it shows no standard pattern among students for their subject choice. For instance, students at Gharyounis, and The Seventh of October Universities reported the influence of their friends as the main reason for their choice of Sociology, whereas those at Sabha University stated that they had acted on their parents' wishes, whilst more than half of those at Aljabal Algharbi chose this speciality in response to labour market demands. Undoubtedly, different demographics underpin these outcomes, in that Aljabal Algharbi University covers a large geographical area with a variety of schools and colleges for different age categories. Hence it is able to provide many employment opportunities for Sociology graduates who are

expected to work as teachers or social inspectors to meet the rising expectations of this thriving area. The reason for the social influence upon students at Gharyounis and The Seventh of October, where over half were reportedly influenced by their friends in their choice of specialisation is not clear. Nevertheless, it could be that with such a degree, individuals do not envisage travelling away from their homes as the type of employment available is usually in the public sector, serving the local community.

Table 5-20: Motivations for Sociology

Specialisation	Sociology							
	Gharyounis		The 7 th of April		Sabha		Al-Jabal Algharbi	
Name of the university	No	%	No	%	No	%	No	%
Reasons	No	%	No	%	No	%	No	%
Personal interest	63	35	54	42	22	19	40	33
Achieving the required score	57	32	34	26	61	52	33	27
Family interest	95	54	67	52	73	63	56	46
Peer influence	112	63	81	63	44	38	34	28
Excellent performance	37	21	31	24	62	53	52	43
Better job opportunities	43	24	39	30	67	58	67	55
Don't know	11	6	7	5	3	2	11	9
Material returns	21	12	31	24	32	27	58	48
Total	177		129		116		121	

Moreover, there is a cultural inclination to consider Sociology as a less demanding subject than many others in the universities and that may possibly have been because students were more comfortable with the clear link between qualification and nearby employment. In the case of rural universities such as Sabha and Aljabal Algharbi, over 50% of students were of the opinion that a qualification in Sociology would provide job opportunities that could enable them to remain in close proximity to their friends and families. However, if they were to study in the urban universities, they would struggle to find jobs because of intense competitions for employment and fragile social relationships. In fact, in rural areas, it is often the case that a student only needs to produce a university degree to be offered a job position.

The results show that students at both Gharyounis and The Seventh of October Universities had the same motivation for choosing Sociology, whereas those at Sabha and Aljabal Algharbi Universities differed. Nonetheless, behind all motivations was the knowledge that the education and social services sectors being part of the overall government apparatus in Libya, would provide employment close to home if required and with a reasonable, although not spectacular salary.

Summary of Motivations for the Four Specialisations

This study offers an important perspective for understanding the relationship between students' specialisation and the concept of motivation. The trends as they emerged from the research can be summed up as follows:

Medicine

With regard to medical students, the reasons may be summed up as fulfilling their families' expectations, being qualified to join the medical field by scoring high marks in their final secondary school examinations, and personal interest in the profession leading to a genuine desire to be involved in Medicine. Unexpectedly, financial returns and seeking job opportunities come last in the catalogue of reasons, because one or both parents is a doctor and the student's choice was a natural one enabling him/her to follow in their mothers'/fathers' footsteps, and partly because their families may seek enhanced reputation and social status at the expense of financial returns.

Engineering

Students at the 7th of October, Aljabal Algharbi and Sabha universities identified several reasons for joining the Engineering department, namely, good job opportunities, and high financial returns. At Gharyounis university, students also

identified the financial return factor as a prime motivator but they did also stress their personal interest in becoming engineers.

English Language

In all four universities, students stress the importance of job opportunities after graduation as a reason to join the English Language Department. Related to this economic factor is a social one which focuses on family interest. Students have also stressed their personal interest in the English language particularly at The Seventh of October, Gharyounis and Aljabal Algharbi universities. As far as Sabha University is concerned, students highlight the priority of making financial gains via English language. Furthermore, the majority of students perceive that they will be able to enhance their formal income via private teaching and several other means.

Sociology

The views of Sociology students vary from one university to another, a reflection of the existing status quo of students in the arts and social sciences subjects with a particular emphasis on students of psychology and Sociology. While students at both The Seventh of October and Gharyounis Universities admitted that their friends were the most influential factor in their motivation to join the Sociology Department, students in Sabha University reported that their choice stemmed

from family pressure, and those at Aljabal Algharbi University appeared to favour job opportunity as their motive for preferring Sociology. It is evident that social networks such as family and friends play a pivotal role in motivating students, particularly females, to opt for Sociology, which can be evidenced by females' interest to obtain a university degree in the field.

Gender Issues in the Students' Subject Choice

Gender considerations are also apparent when comparing the distribution of females and males within the four different specialisations as seen in Table 5.21.

Table 5-21 Distribution of study sample by gender in each university.

Specialisation	Medicine					Engineering					Sociology					English					Total
	Male	%	Female	%	Total	Male	%	Female	%	Total	Male	%	Female	%	Total	Male	%	Female	%	Total	
Al-Jabal Algharbi	102	86.46	47	31.54	149	77	78.57	21	21.43	98	54	43.81	68	56.19	122	61	43.88	78	56.2	139	<u>508</u>
Gharyounis	119	58.62	84	41.38	203	163	83.16	433	16.8	196	98	55.37	79	44.63	177	101	52.33	92	47.67	193	<u>769</u>
Sabha	60	64.52	33	35.48	93	706	83.52	15	16.48	91	56	48.82	60	51.18	116	45	46.87	51	53.12	96	<u>396</u>
7th October	16	14.69	93	85.32	109	112	85.5	19	14.5	131	62	48.06	67	51.94	129	80	47.91	87	52.09	167	<u>536</u>
Total	297		257		554	428		88		516	270		274		543	287		308		595	<u>229</u>

University of Aljabal Algharbi

Table 5.21 shows that the total number of students at the University of Aljabal Algharbi in the research sample reached 149, of which 102 were males, representing 68.46%, and 47 females, accounting for 31.54% of the total responding students.

In terms of medical students, the number of men is higher than that of women. However, the number of females is actually high if one takes into account the following reasons. Firstly, the University and Faculty were established recently (1984); secondly, the constraints of a semi-closed society governed by wide-ranging customs and traditions that restrict females' movement and career opportunities; and finally, the difficulty associated with studying at the medical school which requires much mental and physical effort, often believed to be beyond the capacity of females. However, there is no proof of this.

For example, in Medicine, students follow subject modules, such as autopsy, where human bodies may often be totally exposed. Many people in Libya consider it inappropriate for females to participate in such activities, and such ideas are especially held in semi-closed communities. Moreover, the pattern of work for a medical graduate follows a day and night shift system, which again restricts females from considering Medicine as a career option. This is cultural restriction rather than mental capability and efforts.

Regarding Engineering students at Aljabal Algharbi University, the number of males in this specialty was 77 students, representing 78.57% of the total number of students surveyed, while the number of female students stood at 21 students, thus accounting for 21.43% of the total sample. Again, it is noted that the number of male students

was more than double that of females and more than three quarters of the total sample. This outcome may also be explained by cultural norms, to the learning process of engineers, and to the nature of Engineering work that like Medicine, requires shift working. Additionally, however, engineers usually work on sites that are often in remote desert areas and considered quite unsuitable for Libyan females. Nonetheless, even given the character of Libyan society, this ratio of females to men, despite the low number of **female engineers**, could be considered high in the Libyan context.

The situation was different in the case of English, since the number of male students stood at 61, which is approximately 43.88% of the total respondents, whilst the number of females was 78, accounting for 56.20% of the total participating students. Likewise, in Sociology, the number of males was 53, representing 43.81% of the total students surveyed, while the number of females was 68, which accounted for 56.19% of the total student respondents. Hence, there are more female than male students in these two disciplines at the University of Aljabal Algharbi, which may be due to the fact that Sociology and English are two theoretical disciplines most sought after by female students, as they require very limited physical effort when compared with Medicine and Engineering, and offer job prospects close to home.

In this respect, the type of jobs accepted by English language and Sociology graduates may very well lend themselves to part-time working, which is attractive to females who eventually see themselves with families to take care of. The need to seek out such jobs is demanded by Libyan cultural norms that require the professional outcomes for female graduates to be commensurate with females' roles

and capabilities, and of course, societal expectations. Teaching, social work, administration and other office-based jobs are accepted by the majority of graduates in English and Sociology, and in teaching especially where the work conditions are governed by a pre-determined and clear academic timeframe that does not require the late-night work patterns of the medical and Engineering professions. Hence, it is easy to explain the greater number of female students on these subjects than males.

In general, it can be concluded that the number of male students in the scientific disciplines such as Medicine and Engineering is higher than the number of female students. Also noted, equally, is the high number of female students in comparison to the number of male students in the literary disciplines. A trend can be perceived whereby male students are more inclined toward scientific disciplines, whereas the opposite sex is drawn into literary and social disciplines. However, there is no rigorous research to suggest that intellectually men are more suited to scientific subjects and females to the arts. The dichotomy in this case is definitely the result of a strong cultural expectations of females, and nothing more.

University of Gharyounis

As seen in Table 5.21, medical students at the University of Gharyounis amounted to the total of 203, which is 119 males (58.62%) and 84 females (41.38%). Despite the larger proportion of male students as compared with females in this university, one can still note almost identical trends in terms of ratios as with the University of Aljabal Algharbi.

In respect of Engineering, the results indicated that the number of male students in this field comprised of 163 (83.16%) whereas the number of female students was 33

(16.84%), thereby indicating a much larger concentration of male students specialising in Engineering than female students.

In fact, the Engineering Department at the University of Gharyounis, was established over forty years ago (a long time in Libyan higher education terms). Moreover, as one of the oldest Universities in Libya, has some special features. This University is located in the City of Benghazi, Libya's second largest city, with a distinctively open society and a contemporary urbanised culture. Nevertheless, this relative openness has not had the expected impact of directing a greater proportion of females toward this sector.

As for the students of Sociology at the University of Gharyounis, the number of male students was 98 (55.37%), while the number of female students stood at 79, accounting for 44.36% of the total students, and thereby denoting a much closer balance in gender terms. That said, an interesting finding in this respect is the high number of male students studying Sociology compared with that of female students in the same department.

Equally, the data showed that the number of male students undertaking an English degree reached 101, which averaged 52.33% of the total students, while the number of female students in this specialty was 92, averaging 47.67% of the total students. Again, the gender distribution is much more in balance than in the science courses.

In general, it can be concluded that male students in all four disciplines far outnumbered female students at the University of Gharyounis.

University of Sabha

As seen in Table 5.21, male medical undergraduates at the University of Sabha amounted to 60 (64.52%) while female medical students numbered 33 (35.48%). Even though the number of male students was higher than that of female students, there is still a substantial proportion of the latter, which may be due to a shortage in the percentage of female doctors in the city and its vicinity. In addition, it is a fact that the Medical School in this university is a recent introduction and in the past many females who wanted to become doctors had to travel elsewhere for their education and training.

The findings also reveal that in the Engineering Department at the same University, the number of male students (76) accounted for 83.52% of the total students in this specialisation. The remaining 16.48% (15) being accounted for by female students. Clearly, there is an overwhelming majority of male Engineering students, not surprising considering the rural nature of the University and the expectations placed upon females to work in 'protected' environments rather than in remote and potentially 'dangerous' desert sites.

In Sociology the gender split was 56 (48.82%) males and 60 (51.18%) females. Similarly, the percentages in English revealed 45 (46.87%) men and (53.12%) females. Hence, the tables are turned in respect of these two disciplines, but in fact, the percentage increase of females is far from similar to the percentage increase of males in Medicine and Engineering. Such trends can clearly be attributed to the suitability of the professional careers and job opportunities awaiting graduates of these subjects, to female tastes and attributes, and indeed to Libyan religious and

cultural norms. However, it is worth noting that until very recently, it was practically impossible to hear English being spoken by females in villages and remote regions, since in such closed societies, females are pigeonholed by the traditional view of education, which assumes that there is no need for females to progress to university. Their rightful place, according to this view, was supposed to be in the home, concentrating upon and prioritising their family lives. The growing cultural openness, information revolution, and globalisation phenomenon has, however, reached the small villages of Libya. Arguably, the world has become a multi-cultural community in which the perceptions of females' positions and value to economies have started to shift the balance towards a broader and more comprehensive equilibrium concerning their education and the culture within which they exist. Thus, attention has been given initially to disciplines, seen by Libyan society as commensurate with the female nature such as the arts and humanities (including Sociology and the English language). It may be that with the evolution of changing cultural attitudes, greater accessibility to the sciences may become available for female students.

Concluding this discussion on the University of Sabha, male students outweighed female students in Medicine and Engineering, and the reverse occurred in English and Sociology. The potential reasons for this trend have already been indicated, but, in addition, the fact that females are not offered unconditional freedom of movement and mobility by their parents seems to play a part in curtailing their subject choice. The process is not left to the students themselves but is made by parents anxious to keep their daughters close to home.

The 7th October University

As for the 7th of October University, the results presented in Table 5.21 reveal a very different pattern from those of other universities in respect of medical students since the overwhelming majority are female (68 – 62.4%) with males (41 - 37.6%) being uncharacteristically, much in the minority.

However, the picture with Engineering runs true to form, males being greater in number (112 - 85.50%) than females (19 - 15%). The recent introduction of the School of Engineering to the University of the 7th of October may be one reason why female enrolment is low. However, the usual factors discouraging females are also present, and quite likely account for the low representation of female students in this discipline.

In terms of Sociology and English, the gap between males and females was much narrower, reflecting the patterns found in the other three universities. The number of male students studying Sociology was 62 (48.06%), while females accounted for 51.94%, being 67 in number. And in respect of English, the number of male students was 80 (47.91%) while female students amounted to 87 (52.09%).

The Gender Gap

It is definitely the case that at Libya's highest academic institutions, there are imbalances in the number of male and female students, and that overall, across all courses, males account for more students than females. In an environment where university education is free, and gender is no barrier to a place in the university, these differences can only be accounted for by cultural imperatives, which in themselves

are contradictory in respect of their impact upon the development of human capital in Libya. In Medicine in particular, females might have been thought to be as prominent as men given the religious requirements for females to be attended to by female physicians, but only in The Seventh of October University did females appear in the majority in Medicine, and in the other three Universities, they were much in the minority. It can be concluded that the highest percentages of students within the four universities in the discipline of Medicine in terms of male representation lie respectively with the University of Aljabal Algharbi (68.46%), the University of Sabha (64.52%), and the University of Gharyounis (58.62%). On the other hand, the highest percentage among female medical students is found at the University of the 7th October (62.4%). In the others, the University of Gharyounis (41.38%), the University of Sabha (35.48%) and the University of Aljabal Algharbi (31.54%), females are definitely less represented. Interestingly, Gharyounis and The Seventh of October Universities, which have the highest percentages of female medical students, are located within two major Libyan cities. In addition, it should be remembered that it is difficult, if not impossible, for females living in the city of Misratah to leave their home town to study even if they are highly talented and intelligent. This is because cultural norms and religious expectations are much more entrenched in the rural areas in general. The inauguration of such an academic institution has thus made it possible for some females in the region to pursue their education up to the university level.

Equally important is the fact that approximately one third of the medical students sampled were females at the Universities of Aljabal Algharbi and Sabha. These are located in the environments dominated by rigid customs, traditions and outmoded

cultures that do not promote an all-out education for females but simply reduces their choice to the most basic and related to their immediate needs. However, the rising percentages of these figures can be significant indications of the social and cultural changes that have taken place in these environments.

Although there are no clear differences between universities in respect of the Engineering discipline, the pattern of male domination prevails. For example, the percentages of male students in Engineering degrees were as follows: the University of The Seventh of October (85.55%), the University of Sabha (83.52%), Gharyounis (83.16%), and the University of Aljabal Algharbi (78.57%). These patterns flow from the widely held cultural attitudes that Engineering is not a suitable discipline for females for the several reasons already discussed. Nevertheless, Engineering opportunities are available in the cities and they do not all require working in shifts on sites in remote desert areas. Therefore there may be no rational argument for society's attempted exclusion of females from such programmes, through its expectations and stipulations of what females may and may not do.

The highest percentage of females studying Engineering was observed at the University of Aljabal Algharbi (21.34%), possibly due to the relatively recent introduction of this discipline to the region and the accompanying expectation that females will join this new field. It is also possible that the prevailing culture will generate a challenge to certain female students who believe that by selecting this discipline they will have a rewarding adventure and profession.

In respect of the disciplines of Sociology and English in the four Universities, one can notice similarities among the ratios of males and females, usually with females

being slightly higher in percentage terms. Only at the University of Gharyounis were male Sociology students greater in number than their female counterparts and this was only by a slight margin.

The general observation is that in all four Universities, male students are more in number, and tend to pursue scientific and practical academic disciplines, whilst females are less in number and are more in evidence in the arts and humanities disciplines. This is explained by the various factors already mentioned, all of which are culturally and religiously conditioned.

Summary

This chapter has presented an analysis of the quantitative data obtained from the questionnaire administered to the student sample during the field research. It has been shown through the analysis conducted by using SPSS, that several variables steer students into making particular choices after the secondary stage of their education. Perhaps, firstly, it is a decision of whether to progress to university at all for, as it emerged, whilst the vast majority of students want to take up this opportunity, some reject it in favour of staying at home and not working but staying at home and following a course of a shorter duration in a vocational institution. On the other hand it is to do with going out directly into employment, and/or going abroad to gain experience of language and life in another country. For students who do progress to university, their specialism choice is subject to parental influence, market forces, peer group manipulation, and geographical considerations. This means that many students eventually enrol for a subject that is not their original preference.

Following from this analysis, the chapter has moved to consider the precise reasons for students' choice of Medicine, Engineering, English, or Sociology at each of the four Universities in the sample. It then considered patterns of choice and representation by male and female students, thereby highlighting imbalances in gender terms in certain disciplines.

The following chapter **presents** the qualitative data results from the interviews, discusses and analyses the major findings from both, the interviews and the focus group meetings according to the emerging themes.

Chapter 6.

QUALITATIVE DATA

Introduction

This chapter is divided into two sections: first, the qualitative findings from the individual interviews, secondly, a report of the focus group discussions. In addition, it describes the strategy used for analysing the interview data.

The qualitative data was collected from personal interviews conducted between the researcher and the students in the research sample. The interviewees involved in this study were first year students, studying in four different disciplines, Medicine, Engineering, English Language, and Sociology, at four different Libyan Universities. The total number of the participants was sixty-five. Given the time constraints and problems with the synchronisation of the data collection process, since the interviews were conducted when students were taking end of year examinations, the researcher decided to conduct five interviews with each individual student from the selected department. Only sixty five interviews were conducted in total, as some female did not agree to participate in individual interviews. In order to represent females in the sample, the researcher conducted focus group interviews with them. The purpose of the interviews, as a primary source of information, is to develop an in-depth understanding of the process of choice of subject as well as to identify any differences between students in these universities in terms of their subject selection at the point of entry to HE.

The chapter focuses on student views of subject choices with the aim of understanding what influences them to make choice at first year university, throughout the process of choosing subjects and post-admission reflection on the process as a whole.

Strategy used for to analyse the interview data

In this section of the study, the research will explain the process used to analyse and interpret the interview data of the 65 participant so that no information is missed, misinterpreted, or forgotten.

Steps taken for interviews

Although the researcher had a team to help me with the preparations of the interview rooms, and the recording equipment to guarantee interview recordings of the highest quality, he was the only one who attended the interview. The aim was to allow the student participants to speak freely.

One interview was done in the theatre and as a result, the quality was poor. This was a learning experience for me; therefore, for the subsequent sessions the researcher secured another room that was sound proof. Because there was no time to read through the interview transcriptions of every individual participant, the researcher repeated the answers in front of the interviewee not only to ensure that their responses were clear but that the recordings were accurate. As Rubin and Rubin (1995) comment, ‘...it seems a shame to tape for accuracy and then not have a full transcript at the end’. (p127)

For the respondents' validation the researcher repeated some answers, if they were not clear to **me or if could** be understood differently.

As the interview was a textual description a set of questions were prepared to cover specific areas. Hence, some irrelevant issues were removed and attention was focused on ideas that related to the study. Interviews were recorded after permission had been obtained from all participants prior to interviews.

Challenges of the interviews

One major challenge was how to **overcome the overlap between some themes**. Other challenges included time, cost and effort. There were four case studies located in four universities. Each case study has samples (participants) from four disciplines, therefore, the researcher had to travel and arrange the interviews and meetings with the participants in advance.

The sample was quite large. Another participant replaced one female participant, from The Seventh of October University because she refused her voice to be recorded. An additional challenge that emerged was when the researcher had to make a decision whether to analyse all the interviews individually or use cross-case analyses. In this context, the issue concerned the identification of the themes. The solution was to analyse thematically the interviews whereby each theme is derived from one of the study question in order to guarantee that all questions will be covered, as well as the themes that emerged from the discussion in the interviews.

Transcription of the interviews

As the original data was in Arabic, the researcher took special care that nothing was mistranslated or missed. Unlike the structured interviews where answers can be written within the time of the interview, it is advisable to record semi-structured interviews because they will be transmitted from speech to ideas. For, as Holstein and Gubrium (1995, p.78) explain, the audio “can later be transcribed for close analysis”.

Table 6.1 shows the distribution of interviewees by the number of participants in each discipline, gender, type of specialisation, and university.

Table 6-1: The Research Sample

Name of University	Number of Students								The Total	
	Sociology		English		Engineering		Medicine			
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Gharyounis	2	2	3	2	1	4	2	2	8	10
Seventh of October	0	4	1	3	0	4	1	2	2	13
Sabha	1	2	1	3	1	4	1	3	4	12
Aljabal Algharbi	1	2	2	2	1	3	1	4	5	11
Total	4	10	7	10	3	15	5	11	19	46

Table 6.1, shows the distribution of the total number of students who participated in individual interviews. The highest level of participation was from the Gharyounis University, which amounted to 18 participants, followed by Aljabal Algharbi, and Sabha both with an equal number of 16 participants, and finally 15 participants from the Seventh of October University .The table shows that there were 46 male participants and 19 female participants. This was due to the conservative cultural attitudes of (and towards) females in many villages.

Due to the large number of responses and the large number of interviews, the responses will occasionally be displayed in tabular form for easier understanding and commenting on to highlight the differences between the universities and for discussion of details.

The following section discusses the responses to the interview questions according to each discipline in the four universities.

Choice of Subject - Easy or Difficult

Sociology

Table 6.2 shows the distribution of Sociology students in the four universities according to their answers to the following question:

Was the process of choosing the specialisation of Sociology easy or difficult?

In total, 14 participants studying Sociology in the four universities were interviewed, and their answers are shown in Table 6.2.

Table 6-2: Student Responses for Sociology by University

Respondents' Answers	Gharyounis	The Seventh of October	Sabha	Aljabal Algharbi	Total
It was difficult	3	4	2	3	12
It was easy	1	0	1	0	2
Total	4	4	3	3	14

From Table 6.2 it is evident that students of Sociology agree on the problems faced when selecting a special course at university level. Nearly 86% confirmed that

subject choice was difficult. To identify the reasons behind this problem, the researcher posed the following question:

Why was it a difficult decision to choose the Sociology discipline?

The interview shows that there were differences in views of student opinion in this respect, the important ones being highlighted in Table 6.3.

Table 6-3: Reasons for Sociology Students' Beliefs

Respondents' Answers	Gharyounis	The Seventh of October	Sabha	Aljabal Algharbi	Total
It is a turning point in my life and it is a fate decision	3	4	2	3	12
I changed my initial choice because the unavailability of the course I need	0	0	1	2	3
It was the only choice at the time of registration	0	1	3	3	7
I was a bit confused by the variety of courses and programmes available	3	3	1	0	7
It was difficult because I did not reach the grade required for my initial choice	2	3	3	2	10
Total	8	11	10	10	39

The majority of students confirm the important issue of the effect of the choice of subject choice upon their future life. **They consider it as** a turning point that would affect their future. As a result, this choice can be more difficult and complicated depending on a combination of factors. One student from the Sabha University compared it to a crossroads through which a student determines his or her academic career as well as future job, (she added) “For me it was really difficult and was not entirely clear. Firstly, the only viable option was could fit with my family circumstances because both my parents are illiterate. No one told me either what I

will study in this discipline or the future employment prospects for Sociology graduates.”

This statement demonstrates the role of social capital and cultural norms embodied in family solidarity. While the students may not resist the wishes and views of the individuals, in many cases it restricts or even direct their desires; even impinging on their educational future, regardless of whether these views are imposed on the students or not. In addition, it is difficult for a student at this young age to rely on his/her experience to choose the right subject if his/her parents are not educated. The student above raises very important issues relating to the problem of balancing between his choice and the choices enforced by the circumstances of his family.

Another dimension is the academic achievement of each student. Significantly, 71% of the sample responses demonstrate that the subjects that students are currently enrolled on are imposed on them as a result of their failure to obtain the required grades for admission to the disciplines they initially wanted to study. For example, one student from the University of The Seventh of October stated, “In the beginning, my choice was clear and easy because I wanted to study Engineering. However, when I did not achieve the grades that qualify me to join the Engineering course, it became extremely difficult to choose whether to repeat the last year in secondary school or not. Finally, I decided that what is important is to have a certificate and then Allah will make it easy.” This response represents two issues, namely academic achievement and resort religious faith.

Based on the above statement one can argue that students who fail to reach the grade have to enrol on other courses may not be justified to say that the current subject

studied was imposed on them. In the circumstances, what is important for the students is to be given the right guidance that would help them in such cases. Nevertheless, while students are aware that if they fail to secure admission to their first choice they will join other courses, these options are not clearly stated.

The availability of specific subject choices in some universities and not in the others is a significant issue. This problem arises because of the geographical location of universities in some cities that are small, have limited the facilities and resources. Here, one can clearly note a marked difference between students in the four universities, regarding the difficulty of choosing a course. For instance, 50% of the interviewed students from the University of the Seventh of October and Gharyounis University, which are situated in major cities, were confused as a result of the large numbers and diversity of disciplines. However, 21% of the interviewees from Aljabal Algharbi and Sabha Universities confirmed that, unlike those in coastal city universities, the options they wanted to study were simply not available in their local universities. Furthermore, this reflects the reality that students who live in major cities will enjoy abundance of educational alternatives, unlike those in small cities, such as Sabha and Gharian,(Aljabal Algharbi). Moreover, students the former category who live in major cities, have academic choice available at other post-secondary institutions such as higher technical institutions, higher vocational institution. While studies in other countries show that subject and university choices are based on institution's reputation, in Libya, the proximity of a university to a student's home plays a crucial role in influencing his choice of subject. This is particularly true of the female prospective students.

The diversity and plurality in disciplines and educational programmes may in turn create confusion and hesitation, especially in the absence of any kind of student guidance and counselling. For example, one student from the Sabha University stated:

“My dream since I was a child is to study Engineering design. I believe it suits me as a female and it is required in the labour market. However, this specialisation is not available in my University so it needs me to travel and stay in Tripoli. This is impossible for me as a female”.

The gender factor is significant when it comes to choosing a subject of study at a Libyan university. Despite the political, social and cultural changes that have taken place and social and cultural changes this will continue affect the choice of subject's specialization in the universities. For, in addition to the above statement, the student stated that it was “pointless to spend a period of student life in studying something without a clear goal or be forced to study for one reason or another”. She argued that it would be against the wishes of the state since would have wasted state funds. Thus, a female student's wish to choose a particular subject, in which she may perform well, may be constrained by her gender, and similar to other females, this student from Sabha University was unable to study Engineering or any other subject that challenges the attitudes and expectations of the semi-rural community. Sabha University, in the southern Sahara area of Libya, is an example of a rural university located in an area where communities still hold conservative customs and traditional cultural value that are restrictive to both men and females. For instance, although according to traditional and Islamic instructions, females as opposed to men should cover their heads, in some parts of southern Libya, the reality is very different since men cover their heads and faces whilst females do not. Notably, until recently,

despite the availability of separate single sex accommodation, it was impossible for a female in Libya to live in a student accommodation, far from her home. Hence, given the cultural and social factors, in many respects, subject choice is still a collective not an individual decision.

English Language

The total number of interviewees from the English Language specialty was 17 (7 female and 10 male) see Table 6.1. When participants responded to the question concerning their reasons for choosing the English Language as a University subject, they responded by underlining the ease with which they selected English language as their specialism. It was noted that most of the participants consistently stated that they made the decision early in at the secondary school stage; hence, studying English at university English at university was a natural progression. For example, one participant commented: “When I entered high school three years ago I knew very well that I would join the Department of English Language. English is my favourite subject; therefore, I did not find the selection process difficult.”

Table 6.4 indicates responses from the students regarding whether their decision to choose English Language as a discipline, was easy or otherwise.

Table 6-4: Student Responses for English by University

Respondents' Answers	Gharyounis	The Seventh of October	Sabha	Aljabal Algharbi	Total
It was difficult	3	4	2	3	12
It was easy	1	0	1	0	2
Total	4	4	3	3	14

Nevertheless, another category of students who make an early choice to study languages at university are confused by the multiple options within languages. In this respect, one participant stated: "I wanted to study the French language, but my father advised me to study English because there are better job opportunities. I was initially confused but then prayed to Allah, "*Salatul Alstikharah*" to guide me and finally I have chosen English discipline." This statement emphasises many aspects concerning subject choice and raises very interesting points. First, academically, the sub-choices within each discipline are another obstacle that may face a student when he/she progresses to university education. **When students choose a specific discipline, how do they decide on a sub-discipline, for instance, in Medicine where there are several options including surgery, pharmacology, and gynaecology.** However, although these sub-choices are not the focus of this study, firstly, they are nonetheless very important as it is demonstrated in the student's statement above. Secondly, the human capital factor is clear when a student decides to leave his/her subject interest, for example the French language, and choose English in the interests of securing better job opportunities. Thirdly, where there is an element of hesitation and/or uncertainty, a student turns to his/her inclination religion may be regarded as the model of guidance that would enable them make the right choice.

Engineering

There were 18 students interviewed (15 male from all four universities, and 3 female students from the universities of Gharyounis, Sabha, and Aljabal Algharbi. However since the faculty of Engineering at The Seventh October University was only established in 2000, the number of female students has not exceeded 24. Hence, no female participant volunteered for the individual interview. This demonstrates that choices for Engineering are dominated by boys, a point further confirmed in Table 5-21 It demonstrates that the proportion of male student on this course reached 83% while female did not exceed 17%. In answering the above question, students from the four universities agreed that they had no problems in making their choice of specialization. In addition, they stated that Engineering was their initial choice and desire. Moreover, they declared that they having been prepared for this choice during their secondary education. They agreed that the study of Engineering is a natural extension of what they had studied in secondary school, which is mainly based on mathematics rather than literary or science subjects .for example, one student said: “I studied in what is known as the secondary school of Engineering which entitled me to study Engineering. Choosing a subject was not difficult.”

From the students’ responses regarding their choice of Engineering as a discipline, and the data presented in Table 5-21 the low number of female students suggests that the apparent under-representation of females in Engineering courses is influenced by the subject choices females make in secondary schools. Nevertheless, some students try to counter the perception that females cannot choose science subjects by making conscious decisions to take Engineering. For example, one female student confirms this fact when she states:

“Although it was my initial wish to choose this subject, I faced a challenge to enrol in this department as my elder brother was against the choice. He strongly believes that this specialisation is not for females. However, my parents agreed on the condition that the future work would be close to our family residence area.”

Another interesting point is the change in her parent attitudes, which gives an indication that the dominant attitudes towards females were mainly due to their previous lower education level. Therefore, when a female attends higher education institutions she becomes more articulate, is more assertive, confident and convincing in her argument. Usually, this is in spite of the dominant cultural values that attempt to curb females’ achievements.

Medicine

All medical students in the four universities agreed that it was not difficult to make their choices. However, they acknowledged that the subject was challenging and that in order to be accepted for the discipline one had to obtain high grades. One participant from Gharyounis University commented on the value of parental support in this career, saying: “For me it was very easy as my parents, who are both doctors, encouraged and supported me to study Medicine from early age.” The parental involvement varied from family to family. The role of educated parents in influencing the student’s choice was strongly commented on for, not only do they support their children to enhance their academic achievement but they also tell them to follow their professional pathway, this related to social issue of ‘belonging’. Students who came from families where one or both parents had received university education had a desire to be like them. One student from Aljabal Algharbi showed

his parents' wish for him to be affiliated with the medical profession, and hence to become upwardly social mobile, saying: "Being a doctor was my parent's dream although both of them are not highly educated. However, they encouraged me to choose Medicine because no one in my own family or extended family is a doctor. This really gives me motivation to enhance the position of my parents. The additional factor is that I was getting top marks at school." Evidently, family status or position in the local society is another significant factor associated with the selection of Medicine. The prestige of a doctor's career is highly appreciated in Libya, particularly because there is an unequal distribution of doctors between rural and urban areas. Consequently, even though the parents of the medical students from Aljabal Algharbi University are not highly educated and may be unable to provide academic and professional guidance, they nonetheless appreciate and privileges of the medical profession. Hence, they will encourage and facilitate their children to overcome any additional financial obstacles such as relevant expenses but not fees which the state pays for. Hence, social and human capital clearly appears in the sense that the status of family can shift from being uneducated, to one that has a doctor within it.

Choice and Student Satisfaction

Sociology

Participants in this category of subjects mentioned issues related to the passion for the subject and the degree of satisfaction regarding the choice of specialisation. One interviewee from the Seventh of October University commented: "My satisfaction cannot be measured easily, but as a woman, I feel it is one of the best disciplines for

me. I am sure I will be satisfied with it when I go further in my studies.” This statement demonstrates that although gender plays an important part in influencing the student’s choice, she is satisfied with the subject particularly because of her perceived chances of securing a job after graduations are high. In addition, there is a high probability that jobs in this profession will be available near her home. Furthermore, the subject choice seems to satisfy her role as a woman.

Another male student appeared to value Sociology for its intrinsic value and its contribution to society’s development, but at the same time, deplored the mistaken perception that Sociology was a meaningless discipline, open to anyone. He said:

“I have chosen this specialty full of confidence. I was very impressed by Ibn Khaldoun, the Arab Sociology scientist through my studies at the secondary level as well as through my personal reading. However, it is a fact that sometimes when I remember the traditional inaccurate view, through which our society perceived those who graduated from the Sociology subject, I feel frustrated and dissatisfied. It is said that this specialisation is accessible for everyone since people who cannot study any other subject are free to take Sociology and obtain a certificate.”

Notably, this view does not consider the importance of Sociology for the society.

From these statements, my study noted that there could be variations in the influence on student choice. This suggests that students always thought about their choices and subsequent decisions. In this context, the student showed sign of hesitation concerning his study of Sociology. Although he was confident of his choice that is based on his prior background knowledge of the discipline, the negative reputation of the discipline within society represented a source of concern to him. This poor reputation could be attributed to several reasons, for instance, there is limited knowledge of the value of this discipline in most Libyan communities, and that is a

direct result of the political regime over the past 40 years, which has not encouraged research into socio-political issues.

English Language

Students studying English were positive when they were asked about their levels of satisfaction with this discipline, most believing that contrary to the prevailing belief in society that English was not a worthwhile subject to study at university, this specialization opens up many career opportunities that are not necessarily linked to teaching. One participant from Aljabal Algharbi said: “It is one of the most desired requirements of the labour market in my area and it is still rare to find a person in our age group who can speak fluent English.”

This statement underlines the fact that the reputation of the subject plays a significant role in its perception within society. This is particularly pertinent in the absence of widely available official information from the universities. This choice was not only believed to satisfy personal ambitions but also to offer upward social-esteem. As one participant asserted: “Since I was young, my ambition was to study this subject. Secondly, if you are a woman gaining a qualification in this subject it is a sign that you are very knowledgeable.” Hence, personal choice and perception of the importance of the subject went together.

The prestige of the **discipline is a crucial factor.** Although, literary subjects are less popular than sciences **subjects are**, English language is one of the most valued disciplines because in Libyan society a person fluent in English is considered very knowledgeable.

Engineering

Although issues concerning course content were noted and students complained about the theoretical bias of the course, most of them expressed their satisfaction with their choice. Their only concern was the lack of practical training, which they considered to be critical since this would make them face some difficulty in the future when working in the field. In this respect, one participant from Aljaba Algharbi University showed his fears, saying: “I entered this specialty with full conviction. I would be completely satisfied if I get a job after graduation. I hope I will not find myself unemployed or working in the field of non-specialist.”

The match between qualification and a future career is very important since it helps graduates to apply and practise in the real world that they have studied. The dissatisfaction with lack of the practical aspect of this subject may be emphasizing its basic nature that should be mastered before practice. Moreover, some participants expressed dissatisfaction with the actual university at which they were studying, being sensitive to differentials in terms of resources and university reputations. One participant from the Sabha University raised this issue, stated: “I am satisfied with the specialty, but I wish I was studying in Alfatah or Gharyounis Universities as they have the best facilities and an excellent reputation since they are the oldest universities in Libya.” Again, this type of satisfaction seems to be found everywhere.

As evidenced in the above statement, there was a sense of anxiety among some students that some universities were not as good as those in major cities. Unlike other Middle Eastern countries such as Egypt, Jordan and Syria, in Libya, a specific university’s reputation does not always play a significant role in students’ university

subject choices. Moreover, it does not make any difference whether a person is qualified from abroad and have a PhD from a high ranked university or lower ranked university. Other factors, for instance family background, family status, social networks seem to play a more significant role.

Medicine

The participants were generally satisfied with their choice of this subject. However, drew comparison between universities that they believed offered a better learning experience. It is possible that they were comparing class sizes, university equipments and teaching staff. One participant from Sabha University expressed similar views: “There is a big different if you study in Gharyounis or Alfatah because they are more advanced in terms of facilities and teaching staff. Moreover, they are highly regarded by the students themselves.”

Another participant from the Seventh of October University maintained:

“I came to this specialty with full confidence and satisfaction. The only thing that makes me worry sometimes is when I think about future job opportunities. When I see so many unemployed graduates or graduates who work in fields that are unrelated to their university courses, I get worried.”

One student, however, explained that it was too early to “talk about satisfaction”. He was aware that Medicine is a long course, and therefore, the “[s]atisfaction level will be up and down according to your success. As for the choice I have a clear goal and plan”.

Gender and Choice

One female participant from the Seventh of October University commented that her sister who studied in Canada could not travel alone because of religious restrictions. However, she explained that she “strongly believe[s] that there is no difference at all between men and females in the issue of specialisation”. The kind of freedom that a female enjoys where social restrictions are less differs from that of females living in rural areas. This in turn gives females more flexibility in terms of making subject choice as well as selecting appropriate job. However, the interesting point is that the two participant’s reflect the reality on the ground where it is a fact that in some rural area such as in Sabha city, where the community is still very conservative, restrictions are imposed on females’s ability and need to work or move freely. The gender perspective in choosing field of study therefore differs not only between men and females but also between among in rural as well as urban areas.

Sociology

The gender issue was significant especially with concern to the choice for Sociology. Students were divided into two main groups regarding the issue of the impact of gender on academic choice at university. The majority of female students in the Sociology department were in a favour of the principle that there is no difference between boys and females in so far as the specialization was concerned. On the other hand, the male students argued that there are disciplines commensurate with female sensibility and others more appropriate for male students. Based on their responses the study noted that gender issues play a significant role when students make their subject choices. One participant from the Seventh of October University stated that:

“All disciplines fit men, but not all disciplines may be consistent with the nature of the woman. For instance, although a man can work as a nurse he may be less efficient than females. However, in our culture, it is unacceptable for a married woman to leave her husband alone at home to go and work the night shifts.”

Here it is clearly confirmed that these are values prevalent in Libyan society, which pass on from one generation to another, and these values still exist in the third millennium. For the female prospective students those values act as constraints to subject choice.

Another participant from Gharyounis University said, “There is no difference between male and female in choosing a course in the university, especially after the proliferation of medical faculties in many semi-rural cities”. Notably this highlights changing attitude of the community, which has led it to accept that females can do Medicine; additionally, they are now inclined to encourage the females to enrol on degree programmes that last longer than three years.

English Language

Although the English language students had different views regarding the issue of gender, they agreed that it is among the few subjects that offer females different job opportunities, particularly in rural areas where it is in demand, and allows them to work close to their homes. One female student from Sabha University echoed opinions given by students of other disciplines, saying: “I believe that there are some specialties not suitable for females because they may harm them physically particularly if they involve in field work or desert work”. However, he added that whilst did not affect capacity of female to work in any field. There are customs and traditions that imposed in Libyan females’ daily experience, for instance, even if a

female has outstanding English language skills, the Libyan culture would prevent her from working with foreigners especially in rural areas. This is one of the cultural constraints on the subject choice as well as limiting the future job opportunity.

Engineering

Most participants held the opinion that Engineering is a male subject. They stated that because physically and socially it is hard work and involved too much fieldwork. It is unpopular with females. In addition, it is difficult for woman to create balance between fieldwork and caring for their homes. This was underlined by one participant who explained that “the customs of our society” and not gender, are the factors affecting subject choice. In addition, he stated, “[m]edicine and teaching disciplines are more appropriate for female than the Engineering major”. Another participant from the Seventh of October University said that Libya had undergone much change in recent times so much, so that females from rural areas can attend university courses. However, he still believed that Islamic culture is the key factor preventing females from making subject choices that may force them to study far away from their homes. To support his argument, he explained that if a female travels alone she must be accompanied by a Mahram in Sharia law (a chaperone, who is very close relative and he is not in a position to ever marry her), and if it is not possible to find one, then that female’s opportunities to travel to study do not exist. Clearly, as there is a way for females to travel, in principle there is no difference between the genders in choosing the disciplines, and even more, both females and boys have equal opportunities for the advanced stages of education as universities are free to all Libyans. Indeed, the official statistics indicate that between the years of 2004 -2010 more than 1,911 have studied abroad in different fields in

order to obtain higher degrees, either at Master's or PhD level. Religion can play a significant role in influencing subject choice remains, and it is uncommon for a female student to change due to Islamic regulation. For example, if a female planning to study abroad and cannot find a Mahram to accompany her, she will change her choice to a similar one in a local university.

Medicine

The Medicine speciality attracts a wide range of females' applicants in Libya as evidenced by the high enrolment rates of females in Medicine department. For example, while in 1975 there were only the 15 female physicians; by 1991 this number had significantly increased to 11,323. The study noted that the enrolment of females on this course is often encouraged and accepted both socially and culturally .the suggestion is that the increasing number of females choosing this subject influenced by the growing need for female doctors generally and in rural area in particularly. In addition, the profession still gives female doctors the option to do work separately from male doctors, so it has an attraction from that standpoint as well. **Participant from Gharyounis University**, while highlighting the equality of Medicine in gender terms, asserted: "I think with this choice no one can claim that there should be a difference between male and female. If someone wants to make this claim, I can only ask them to answer the following question: Who would you like to treat your wife, a male or female doctor? Of course I know the answer in advance."

Another student, from the Seventh of October University, explained that they live in a country where there are restrictions imposed on the "mixing between males and females". She added, "I believe that in a field like Medicine, the case is different

where we are working as a team. And I think that there is no difference between males and females in choosing the specialisation”.

Although this student confirmed the existence of cultural and religious barriers encountered by Libyan females in their career choices, her statement demonstrates her positive attitudes towards co-education. This is significant since her university is located in Misratah, which still observes conservative traditions thus, until recently, many females in this area did not progress beyond the secondary education stage.

Another participant from Gharyounis University said, “There is no difference between male and female in choosing a course in University, especially after the proliferation of medical faculties in many semi-rural cities”. This implies that despite the lack of resources there is an increasing demand on that there is a separation in the treatment of females separately from men. This has led, I think, the community to accept or even encourage the female to study Medicine, with the prior knowledge that this may lead to delayed age of marriage for a female doctor.

Choice and Job Availability after Graduation

Sociology

My study indicates that the majority of Sociology students pointed out the difficulty of finding jobs after graduation. They acknowledging that in reality to the same speciality is possible. However, it is limited to two areas, teaching or social work. One participant from the Seventh of October University stated that although employment opportunities are limited in this area, females are more likely to be employed than men. This is because many females’ graduates from Sociology found

jobs social welfare whereas boys do not to work in such a job. In Libyan rural area, females are most likely to live and work in their home localities, yet, this not apply to men because after graduation, male student have the right to travel and search for employment in places of their choice. One student from the Sabha University who made this observation also said: “Sociology was the only available specialty that can provide me with the opportunity to work close to home which is acceptable my family”.

Although Libya has a free education system, the cost of educating a student is very high and students are unlikely to spend four years studying a course that will not offer them employment opportunities.

English Language

Most English Language students were optimistic about their employment opportunities after graduation. The majority underlined the fact that this discipline ensures employment in the field of teaching, which may not be the overall choice of many male students, because insufficient salary, guarantees employment. It is worth noting that Libya has recently restructured the education system such that English has become compulsory from the age of five as opposed to eight, as in the old system. This has led to a growing demand for graduates of English in many parts of the country. One participant, who explained that from a social perspective teaching was valued and recommended as a job for females argued that this scenario invalidates any claims that females have few job opportunities, because they can easily find teaching posts in their localities. This view seems somewhat simplistic. However, as observed by a student from Sabha University, teaching is a low paid

career, which does not automatically place a ceiling on females' earning potential. In addition, she stated that: "[t]his specialization is the only choice that guarantees me the opportunity to work in my area but I know that my salary will not be high, especially if I work as a teacher". Further, another student reinforced the compulsion to find work locally, saying: "[t]his is the only option, among the literary approach, that allows me to work, because my parents do not allow me to work away from home".

Engineering

During the research undertaken for my thesis, most of the students seem to expect the availability of employment opportunities after graduation from Engineering. However, students from Sabha and Aljabal Algharbi confirmed that there are unequal job opportunities for residents in cities and those who live in urban semi-rural areas; the latter are unsure of job opportunities in their areas. Some students from Sabha University outlined some of the advantages of speciality of Engineering are that it has many sub-disciplines that open up significant prospects for its graduates. For example, the oil sector absorbs many of the graduates of this specialty but so too there is a growing demand for them in the light of many new projects currently being established everywhere in Libya. One interviewee from Gharyounis University held the opinion that Engineering graduates may be more fortunate than graduates from other faculties, both may now and in the future, since Libya is witnessing a kind of openness and the establishment. These certainly would accommodate a good number Engineering graduates, in particular, and other graduates generally.

Compared with the other choices, Engineering students seem to have more access to the labour market. Nevertheless, this will differ from city to city. However, since most students are male they can travel to search for better jobs and earn higher incomes. Evidently, gender consideration put restriction on female Engineering graduates mobility.

Medicine

The views of medical students regarding the employment availability after graduation were varied. One female participant from the Gharyounis University said that while the opportunity to work as a doctor is not easy, she was determined to pursue her choice because she will work with her father in his private clinic. Another participant from the Sabha University highlighted several issues facing medical students that included, among other things, the increasing number of graduates from the Faculty of Medicine as well as the demand for students to have further training, study and experience before they can compete favourably in the labour market. However, this student noted that the opportunity to work in the villages is still better in terms of job opportunities. According to another participant, 'there is no clear employment plan for the graduates from and specialty'. The foregoing comments demonstrate the absence of transparent plans between higher education and the labour market in terms of information. This raises another issue of lack of information not only during training but also even after graduation from university. This is considered as one of the reasons for the rise in unemployment since students are unable to make informed decisions when selecting university subjects. Finally, one participant from the University of the Seventh of October confirmed that as a female doctor she will have better employment opportunities since many female

patients need to be treated or investigated by a lady doctor. On the other hand, a female doctor who does not want to work in a mixed-sex environment can work locally if there are private clinics in her residential area.

The above statements show that there are challenges facing students who study Medicine. A contributing factor is the high number of students who do actually graduate from medical faculties in recently founded Libyan universities. This has created an imbalance between the number of graduates from Medicine and the labour market demand. However, there are many advantages in favour of women; for instance, there is a high demand for female doctors in many parts of Libya, especially the rural areas. Given the fact that due to cultural and religious factors many females are afraid of being examined by male doctors. Female doctors are bound to have a priority over male counterparts when competing for jobs.

Initial Considerations Prior to Subject Choice

Sociology

In order to understand students' considerations that have been taken by students in order to choose the Sociology speciality, the researcher examined the results of the interviews, which demonstrated that there are specific reasons why the students choose this subject. As shown in Table 3, 50% of the students do not have any consideration perceived in their choice. 36% of the students chose Sociology because of the short nature of the course that would enable them to graduate quickly and obtain a job to help their families financially. It is noted that most participants in this category were students from the universities of Sabha and Aljabal Algharbi. Hence, this may give an indication of the low income level of families in these areas.

Nevertheless, other participants said that they chose this specialty in order to participate in the process of reforming their society.

Table 6-5: Students' Motivations for Choosing Sociology

Initial Considerations	Number of Students				%
	Gharyounis	The Seventh of October	Sabha	Aljabal Algharbi	
I am looking for quick graduation	1	0	2	2	36
I have no special consideration	2	2	1	2	50
I think it will help me at a personal level	0	0	0	1	7
There is no any other option	0	0	0	1	7
Total	3	2	3	6	100

From the above discussion, one can deduce that half of the interviewed students from Sociology were willing to graduate as quickly as possible in order to obtain a job that would help their families. However, a high number of students indicated that they had no special motives for choosing the specialty. This reflects uncertainty surrounding subject choice that sometimes forces students to opt for subjects randomly.

English Language

Most students agreed on the importance of the English language in contemporary Libya. However, the reasons behind their choice of the subject as an academic field of study differed. 71% of the interviewed students stated that they chose English Language because they believed that it will help them to find jobs in the future since there is a high demand for languages in the labour market. This is evidenced by the fact that many recent projects established, developed or administered by foreign

companies in **Libya**, have increasingly demanded for employees who are fluent in English. Another group of participants making up to 17% of the total interviewees stated that they chose English because it is one of their hobbies to develop their fluency in English. For instance, one participant from Gharyounis stated that since he was young he has watched English films; therefore, his dream is to speak the language fluently. He also added that English language skills would help him to compete in the labour market. Other participants stated that English is the language of knowledge; therefore, given the rapid developments in technology, communications and information, one can study through a distance learning programme written in English. While another participant, from Aljabal Algharbi University reiterated the foregoing point **stating: “we** are living in the world of communications’ revolution, language can overcome geographical and time barriers” another confirmed that “this specialisation may open the door to work and study abroad”.

Table 6-6: Students’ Motivations for Choosing English **Language**

Initial Considerations	Number of Students				%
	Gharyounis	The Seventh of October	Sabha	Aljabal Algharbi	
A literacy approach provides the best job opportunities	2	3	4	3	71
It is my hobby	1	1	0	1	18
It is the language of knowledge	1	0	0	1	11
Total	4	4	4	5	100

Engineering

On one hand, most participants enrolled on the Engineering course highlighted the availability of employment opportunities after graduation as one of the most important considerations they took into account when they made their subject choice. Alternatively, from the cultural perspective, one female participant from Aljabal Algharbi University said that the choice of this subject came from her wish to “break the traditional view in our society about the inability of females to study or venture into such areas especially in my city where a female is not encouraged to join this area of study”. This again gives an indication of the change not only of the position of the woman in Libyan society, but also the acceptance of this change from the society.

Medicine

Most students stated that their parents’ desires as well as their individual inclinations for the subject were the most important points and motives that led them to choose the speciality of Medicine. For example, one participant said: “I believe that obeying parents will lead anyone to success. Although I have full confidence that this speciality is one of the best disciplines and it is socially appreciated, the only consideration I took into my account was to meet my parents’ wish”.

The second most important influence on the students’ choice among undergraduates at Sabha, Aljabal Algharbi, and the Seventh of October Universities was the social status enjoyed by graduates from Medicine in particular. These responses demonstrate that social, cultural and family considerations have had precedence over financial consideration in influencing student choice. I suggest that this attributed to

the prevalence of employment opportunities for people graduating with degrees from these subjects. This is further confirmed by the previous discussion of statements by various respondents concerning job opportunities after graduation.

Choice and Sources of Information

Sociology

Results in table 6-7 demonstrate the unsatisfactory nature of formal or official sources of information that students relied upon in order to build on their choices. Nine of the 14 Sociology students did not possess any information about the specialty. They made their decision based on their personal experience. Other informal sources of information were varied ranging between parents, former students in the same specialty, and friends. One participant from the Sabha University stated that , “I did not find guidance or consultation to help me. I made my choice based on what I had heard from informal sources that this specialization is easy for students who want to be successful”.

Another participant from the Aljabal Algharbi University added: “... there were no brochures or programmes to show students the difference between the disciplines and their importance, and their final destination after graduation”. It is true that such information does not necessarily guarantee future job opportunity. Nonetheless, information guidance makes for informed choices.

Table 6-7: Information Sources

Sources of Information	Numbers of Students in each University				%
	Gharyonis	The Seventh of October	Sabha	Aljabal Algharbi	
Parent	1	0	0	0	7
Friends	0	2	1	0	21
Previous Students	0	0	1	0	7
No sources	1	1	4	3	65
Total	2	3	6	3	100

These two statements clearly show although they are informal, they are even poor source of information and unreliable. This appears clear from the first participant who is looking for a certificate regardless the quality of the subject. With regard to parents acting as an information source, one student from the Gharyounis University stated that his father, a teacher of Sociology in secondary schools, was the first and only source of the information about Sociology. So, as an informal source of information, parents educated or working in a field similar to their children's planned area of study, will make it easy for their children to make their choice. I suggest that these views force us to ask a question as to how far students at this level are able to collect data that will influence decisions to make life long commitments to careers; especially given the proportion of low percentage level of education among parents.

English Language

All students I interviewed confirmed that there are no official sources of guidance from either the universities or the Ministry of Higher Education relating to advanced guidance or consultations for students who want to make subject choices. Quite the

contrary, it is a responsibility of each individual student to search for the information needed to make a choice. Nevertheless, one participant from the Gharyounis University said that some subjects such as English do not require much advance information because the moment when they took that subject in secondary school, they knew they would study this at university. Nonetheless, this thesis make suggestion that universities should take the issue of formal information seriously and open days, written pamphlets and provide university (sites) to inform everyone who wants to know about them.

Engineering

All participants confirmed that they did not rely on any official government source of information about their respective courses. They mostly relied on information collected from informal sources. One participant from the University of the Seventh of October stated that **the “Faculty** of Engineering in my city is new, but because my father is an engineer, he encouraged me to pursue the same area”. Another participant from Gharyounis University noted that his university did not effective advertisements of its course, therefore, according to one participant from the same university said “ ... one of my relatives helped me and cemented in my mind to choose Engineering”. This demonstrates the realities of two Libyan universities and suggests that there are errors rooted in universities’ marketing system. I suggest this is because most of the universities are state owned and funded, a situation that does not allow for a lot of competition. Surely, this is the reason why the state should advertise its effort.

Medicine

All students confirmed that they did not rely on any official sources of information from the government regarding their respective courses. They mostly relied on their ingenuity to collect information on suitable subject choices. As one participant from the University of the Seventh of October said “at the time of application, I did not have sufficient information on Medicine specialty and I did not search for it because for a long time it was my desire to study Medicine. I believe that it is up to each individual to search for information that could be of benefit to him/her”.

Another interviewee from Gharyounis University said that his parents were doctors and that they had been his only source of information. In addition, he asserted,

“I believe that the valuable information that a student needs is about the advanced stages of his university studies that will help him to specialise in specific areas of Medicine in preparation for competing in the job market. It is difficult for a student to search for this information without any other support.”

This student raises a very important point that may affect many other students after graduation. However, unlike other graduates, in order to have a successful professional career, medical students need to follow courses that lead them to specialise in specific branches of Medicine.

Focus Group Discussions

In this section I will report and discuss information obtained from the focus group discussions.

Introduction

Given the conservative nature of the Libyan people and the prevailing religious culture, and as the researcher had expected, I could not conduct all the interviews individually. Therefore, I decided to use a focus group as a second method for qualitative data, in order to identify whether there is consensus, conflict or connections between the students, which helps to understand different in-group views regarding shared issues. In addition, this would enable me to understand the perception of students towards one of the important issues related to their academic future. To guide my research as well as focus the participant discussion I prepared open-ended questions.

Participant Profiles and time of focus group

These focus groups were conducted in June 2008. All the participants were first year undergraduate students at the selected universities. They were six main questions for the focus group. Although I initially estimated that the time taken to answer each question would be between 7-8 minutes, I decided to allow an extra 10 minutes in order to cover additional discussions; therefore, each focus group was timed to take 60 minutes. After permission was obtained from each University, I requested to be allocated a room in which to conduct both the individual interviews as well as the focus group interviews.

In the following discussion, I will highlight the results obtained from group interviews. In total, seven focus interviews were conducted. Participants in were taken from those who had completed a survey that was undertaken in the first part of the data collection procedure of this study. The number of participants in each focus

group consisted of eight students, equally distributed by gender - four boys and four females from each department.

In all the chosen universities I found some problems in conducting individual interviews; hence, the use of focus group interviews. Additional problems arose whenever I had to arrange time that suited all university students because:

1. It was time for final exams in most of department and students needed time to revise.
2. Some families objected to their daughters having to reside in the universities' halls of residence.
3. It was difficult to identify a convenient time for all students involved in the focus group interviews.
4. There was limited time in which to accomplish the field research.
5. I had limited funds; therefore, it was not possible to arrange alternative interview schedules.

The interviews were conducted with the assistance of volunteers, and university administrative staff, who helped me to arrange the appointments. Due to time constraints, interviewees from each department were limited to ten in number. Each interview was coded to enable me to make comparisons between the departments. For brevity this study will refer to each group as follows: The Focus group from The Seventh of October University will be referred to as F.G.M.; Aljabal Algharbi University will be referred to as F.G.J; whereas F.G.G. refers to Gharyounis University and FGS refers to Sabha University.

Before I start reviewing the results obtained from these interviews, I would like to refer to the dynamic interaction I had with the students and the level of engagement that they demonstrated throughout the process. Although from the beginning I explained to students the importance of the timescales of the research, I tried not to dominate and control the dialogue or to impose any opinions. Selected focus group questions were different from the interviews but critical because the ideas highlighted in that earlier process enabled me to have a more comprehensive understanding to the choice.

Procedure of analysing the focus group data

All the interviews were tape recorded. The focus groups data was transcribed and categorized. Individuals and groups in each focus group were coded in order to refer to them later. As I listened to the **data**, I transcribed it and made notes. The recorded interviews were twice listened to make sure that nothing was omitted. I used notes from of the ideas that emerged during the discussion and all the themes and sub-themes were grouped together. Based on transcripts of the interviews, I thematically grouped the information in order to reveal how first year students chose or made sense of their choice at this particular stage of education. This technique allows for abstract interpretation of textual content and Inventory of different ideas under the same category to easily analyse and deal with.

Choice of subject: was it easy, or difficult?

Sociology

The first question examined was the students' opinion to the choice of Sociology as a university subject. Participants were asked whether the process of choice was easy or

difficult. More than two third of the participants, from all the groups, described the process as difficult whereas less than quarter of them described it as an easy process. A female participant from F.G.M. noted that the process was much easier for boys than for the females. For, although there was a significant change regarding the position of females in work and education, unlike females, boys still had an advantage when choosing university subjects irrespective of the locality of the university. In contrast, many boys were concerned that there a clear shift in thinking that gave females equal opportunities had occurred in Libyan society.

One participant from F.G.G. said, "I believe it is not an easy process. It is a quite difficult especially if you think about the future job. Moreover, it becomes much more difficult when you have several options but no one to support you in your choice." Similarly, participants from F.G.S and F.G.J attributed the problems of choosing the course to the lack of information concerning future job opportunities. One participant said: "The future is unknown. Many graduates, especially from some department such as history, Sociology, geography, are unemployed." These participants, blamed the government strategy regarding graduates, noted that it was unfair to spend three or four years and end up unemployed. The general view was that courses where one is awarded a qualification that is not in demand in the labour market would not be delivered but the universities must endeavour to offer alternatives courses that are compatible with the labour requirements of the time.

In order to clarify their responses, I asked both groups to comment on why the subject selection process was either easy or difficult. Most respondents stated that it was easy and they attributed this to the fact that they did not give much attention of

the outcome of the choice. Meanwhile the minority of students who regarded it to be difficult were either unsure about their future job opportunity or they did not find the proper guidance which may help them.

Medicine

The students from the medical faculty were clear about their options because they were aware about what they were choosing and were more confident. Most of them agreed that the choice itself was clear and not difficult but achieving the degree was the hard part. Nevertheless, one shortcoming highlighted by many students was their concern with their competence in English language. One female student from F.G.M. said,

“For me my English language level affects my confidence in my ability to succeed in Medicine”. Similarly, another female student said, “I was about to pull out from this choice because of my poor English language. We are not well prepared to deal with medical terms and write essays.”

Students’ responses demonstrated the differences arising from their expectations and the reality of the provisions within the institutions. For example, one student from F.G.S. stated: “While it is my family’s desire and mine to study Medicine the facilities, such as the laboratories, in my university are disappointing.” This reflects that the difficulty of choice for this specialization is not in the choice itself it also lies in some the failure by departments to meet the students’ expectations.

English Language

English language is one the attractive and crowded choice in literary subject choice in all Libyan universities. Moreover, departments sometimes recruit students in excessive numbers. The majority of students agreed that choosing English was an

process because it was their wish to study English language. An interesting point shared by the F.G.S. and F.G.J. was to do with the quality of lecturers who were not articulate in English; notably recruited from Philippines and India. Another female student from F.G.M expressed the same concern and mentioned the lack of facilities and the English curriculum. One participant from F.G.G said: “It was easy because I set my goals in advance to study more than one language. The only problem was that there was no one available to consult about the wider provision, therefore, I started with English language since it is more popular”.

Engineering

The majority of students in Engineering agreed about the ease of the choice. Students in rural area expressed their concern about the unavailability of some specialists in their local universities. This noted that this would make it difficult for them to diversify their future professional choices. One student in F.G.J said: “The choice of Engineering is easy. However, my plan is to study nuclear Engineering but this is not available in my town Gharian. It means that I have to move to Tripoli but this is not an option that is available for everyone.” Finally, another student from F.G.M. said: “The difficulty is not in the choice itself. However, while previously the problem was in achieving the required grades now it has to do with the unqualified teaching staff”.

What was the most influential factor on your choice?

Sociology

The answer on this question was varying between students. However, it is clear that in many cases parents are the key factor that influences the choice of subject. Unlike the uneducated parents, educated parents were more involved they significantly

influenced their children's choices. Although the majority of students had educated parents, it is noting that there some students whose parents are illiterate, but who still encourage their children to enter the School of Medicine. As noted by a male student from F.G.J., "My father is a farmer, however, it was his desire and wish for me to go to university and he always encouraged me to achieve high grades." Some uneducated parents were concerned about the choice of their children, as they did not want them either to repeat their mistakes of failing to gain further education or to make a random selection of the subjects. A male student from F.G.J. said: "... My father told me that when he was my age he sacrificed his education in order to help his father. However, since I had the opportunity he would give me all the necessary support until I graduate." Similarly, another student noted how, despite her mother's inability to read and write Arabic, she had encouraged her to break the barrier of women's illiteracy and apply to study a university degree. Finally, another female from F.G.M stated that when she decided that, similar to her brother, she would want to achieve a university degree she got the support I need from my parents.

Medicine

From the discussion most of the students expressed the view that their parents and friends are the most involved in the process of the choice. A few students emphasized that relatives influenced them as well. This can be attributed to the fact that Libyan society is still based on extended family networks and as such, family members either participate in making significant decisions or are consulted about their opinion. Surprisingly, teachers are not involved in the choice of this or another subject. This can be explained by the fact that there is a strict relationship between the students and their teachers. As one participant from F.G.S put it, "...The relation

between teachers and students in school as well as in university is hierarchical.” Asked why their teachers did not help them with the selection of their choices one from F.G.G. stated: “Our teachers do not show any feeling of responsibility towards us. We have a strict relationship with them.” More than two third of the group said that their parents were involved in their subject choice selection process. The responses concerning the selection of the medical subject highlighted a division in the type of influences on students’ choices. Their friends influenced one group while parents and relatives influenced the other group. One student said that while he had to rely on his own knowledge the other people who influenced him were his friends because they were more aware of the requirements of the course and the labour market while his parents gave him limited guidance.

English Language

Parents and friend were most influence in the subject selection process of students in the English language department. More than two third of students who participated in the interview noted that their friends were most influential in their choice. One participant from F.G.M. said: “I think the communications revolution and the environment have increased the desire of students to learn the language. Internet, mobile phones, satellite and films contributed to the desire for the language”.

Another participant demonstrated the importance of the father's role in the selection of specialization. She said: “In 1981 when my father was a student at the university the government closed all departments of English and abolished its teaching at universities as well. Afterwards he was among the first group of people who campaigned for the reinstatement of the teaching of the English language.” Another

female participant from F.G.M., a Libyan born in Canada who was fluent in English, said that her teacher influenced her decision to select English because it would significantly improve her language skills. This particular group discussed the impact of media on selecting the English subject. Six out of eight students were undecided as to whether the media influenced them to like the subject. However, the rest of the group did not rate it as the most influential factor. The majority of students stated that they selected English for personal reasons, specifically because they loved learning the language and the English culture.

Engineering

Overall, 71% of the Engineering students, 71% identified both parents, regardless of whether they were educated or uneducated, as the most influential factor in their subject selection process. Some students identified their members of their social network, for instance, neighbours or friends, as the most influential factors in the selection process. One student from F.G.B. noted that because their neighbour was an engineer, he visited his office and was impressed by the engineers work; therefore, he chose the Engineering specialism. Another student from F.G.S stated that he was good at mathematics and he saw construction engineering as a subject that would enable him to earn money become wealthy.

What career plan do you have after graduation?

Sociology

Most students did not have a clear plan based on researched evidence or guidance. However, the majority of participants in the focus group did not make decisions based on future of job opportunities. In addition, very few of them raised the issue of

pursuing postgraduate studies. A male student noted that the current labour market had become more open; therefore, students had the opportunity to access jobs either in public or private workplaces. Most participants expressed their concern about the misconnection between the labour market for Sociology students and education. For example, one student from F.G.G. said: “The only clear plan is for those who want to continue with postgraduate studies because all they need is good degree since the places are highly competitive.” An interesting point raised by a female student from F.G.J. was that students’ concrete future plans depended on whether they were residents of Tripoli or Benghazi. According to her, these were the only locations where people, particularly females, had multiple choices but if they were from the rural areas, their options were limited.

Another male student from F.G.M. who had attended primary schools in the UK compared its education system with that of Libya and concluded by saying: “From a student point of view, in Libya your skills limit your future plans especially if you graduate from literary departments.”

Medicine

The majority of students noted the absence of opportunities to acquire practical skills in their subject areas; hence, they would try to get voluntary placements in hospitals because as they believed wealth will come latter. One female student from F.G.M. said, “My focus now is only on my study as it needs hard work. However, travelling abroad for further studies is my main aim after graduation because there is no place for doctors who are not professional.” Another female student in the same group said, “Personally I always think of taking further studies abroad, however, we are not

trained to follow such plans. I do not have a clear or organized plan but only wishes and dreams. Moreover I believe I am not experienced enough not be able to think of such plans”. On the other hand, one male student from F.G.S said that future plans are changeable depending on the circumstances appertaining at one given time. He added, “As future doctors we think of sub-specialty this year which might change over time as a result of changes in the faculty staffing”.

English Language

The majority of Students in this department in all university were more confident with this aspect, however they do not have a clear vision for the future. All what they believe in is that this specialty is highly demanded in labour market, thus job opportunity is much easier for them than any other specialty.

Future job security as well as future earnings were key influential factors in the selection process. For instance, one female student from F.G.S said, the view that English was the only choice that gave her the opportunity to get a secure job anywhere in Libya. Another male student from F.G.J., stated: “I decided to go for this choice because I am sure it is easy to get a job even if it is not formal job. You can give private lessons for secondary students. In addition, you will be well remunerated if you translate official documents.” This view was confirmed by another student from F.G.G. who said: “I want to be financially dependent. Since my family is poor, this choice can help me to accumulate much wealth.”

Engineering

When compared with the rest of the disciplines, students in this specialism were least concerned about their future job opportunities. Some went further to think about how to develop their career and make world class designs. For example, a participant from F.G.M. stated: “If you want a design, the Engineering office would send it to Tunis or Egypt in order for a costumer to have his or plan drawn in four-dimension with the whole view of the land.” The overall image of this discipline, from the student’s point of view, in the labour market is very clear. Although there is no guidance or information, students from F.G.S said that the increased demand of Engineering is evident in different cities. Another student from F.G.M said, “If you obtained high grades and are well qualified you will automatically get a job because foreign companies head hunt good graduates from universities.”

Does it make any difference whether your job is related to your qualification?

Sociology

While a small group of student participants support the notion that qualifications should match the job they are of the view that it is a waste of time to gain knowledge that is real human investment and then work outside your area of specialisation. However, the majority of the participants emphasized the importance of the proper remuneration whether the job is matches your qualifications or not. Overall, there was a perception that not all graduates will be well paid because according to Law No. 15, Libyan graduates’ wages cannot exceed 400 Libyan dinars (200 British pounds). A female student from F.G.M. explained that the existing job mismatch is a reflection of the government’s failure to have a national development plant. She

added that apart from graduates from the English language departments, most graduates from literary disciplines are likely to work in areas that are unrelated to their real qualifications. Another male student from F.G.J. observed that unlike the English language and computer studies the curriculum in many departments was not based on improving students' skills but merely "teaching theories" which in the end prevent students from gaining employment in fields related to their qualifications. Inevitably that significant correlation between the theory and practice is rarely achieved in Libya and elsewhere in developing countries which lack planning.

Medicine

Students in this specialization were more confident about their career choice and they believed that they would not be forced to work in jobs that are not related to their specialization. One female student from F.G.J. commented that there was no logic in forcing students to work hard to qualify in Medicine if they would end up working in jobs that have no connection with the profession. Similarly, other students stated that while it might be the practice for graduates from literary subjects and Engineering to get jobs in fields unrelated to their areas of study, particularly in rural areas, the same principle should not be applied to medical graduates. Nevertheless, they observed that the problem was not the failure to match graduates to jobs within their specialisation but the shortage of jobs in Libya that caused this problem. However, another participant commented:

"In my view, graduating with a degree in Medicine is only the beginning of a long journey to success; therefore, for me I will accept any job that gives me a reasonable income. This would enable me to fund post-graduate professional studies that would enhance my knowledge in the area of Medicine within which I want to practice".

English Language

The majority of students from this department explained that this subject was a more flexible subject and many graduates had been employed in various organisations in Libya. In addition, they noted that while some students will not find work directly related to their specialisation, because of their ability to speak one or more language, there was a high demand for English graduates in the market and this enabled students to get jobs that matched their qualification such as teaching.

Engineering

The majority of students in this discipline said that may be this was one of the disciplines where your qualification matched the job you secured at graduation. Hence, they did not expect to be employed outside their field of specialisation. One student from F.G.S. said: “In the past some graduates from Sabha University worked as mathematics teachers but now the market had changed and there were many job opportunities available for engineers”. However, other students from F.G.J. and F.G.S noted that although employment opportunities were available everywhere, jobs in coastal cities offered better wages, particularly within the oil industry. Further, they commented that there were limited opportunities for them to do field work; therefore, by the time they graduated they had no practical experience at all. One student from F.G.M observed that there was a need for the government to establish career guidance offices at the universities which would support students who were searching for jobs, specifically, in directing them to jobs that matched their qualifications.

Do you think it is the right choice? Why?

Most students confirmed that the issue of whether the choice is right or wrong had two dimensions. Either, it would be the right choice if they succeed in their studies and secure a good job, or, it would be the wrong choice if they graduated and failed to get into gainful employment. One female student from F.G.S. stated that since each individual was responsible for their choice it was difficult to judge whether there was external influence on the students' choice. Further, she said: "I am happy with my choice; however, my close friend was unfortunate because she could not achieve the grade to enter Medicine so she went to another subject which was not her choice". Another male participant from F.G.J. said: "From my point of view it was the right choice. I believe in my life there are two major decisions, your academic subject and your wife and both entirely your responsibility".

Sociology

One student participant from F.G.M. said: "Right and wrong are both relative terms. What is right for you may be wrong for others. I still remember that I was good at Mathematics and Science but I chose the literary subjects because I love them and I can be more creative here. My teachers and my father were not happy with my choice because they thought it was wrong. However, as long as I do well in my studies it is the right choice for me." Similarly, another student from F.G.J. agreed with this point and added, "There are two ways of looking at this process. Firstly, what is right should be based on the students' desire for a specific choice. Secondly, it should take into account the future career opportunities, that is, whether they will be problems preventing the student from securing a good job."

English Language

Most students from the English department students stated that this subject was their right choice while a small numbers of participants from various groups were of the opinion that they were studying English as a hobby.

Engineering

All students were happy with their choice and the only concern was achieving a successful career. Overall, they believed that it was the right choice.

What did you consider when you chose this area?

Sociology

Some focus group participants indicated that family circumstances, financially or socially were the likely influence on their subject choice. One male student from F.G.S said that he because his father was disabled, he decided to make Sociology his first choice since it did not need much effort to succeed and it was available in a university near his home; therefore, he would be able to help his father.

Another response from by a participant from F.G.M. reflected the view that nowadays students go to university in order to get a qualification otherwise their family and peers will deem them unsuccessful. “Therefore”, he said, “although I do not intend to continue with postgraduate studies, I have decided to come to university to get a certificate and afterwards look for a job.” Similarly, another student from F.G.S stated there was a difference between people who had and others who did not have university certificates: “If you are qualified, you can gain job. You may do

nothing but all the same, you will have salary. This is particularly important in rural areas where everything is based on social and blood relationships”.

Medicine

Students from this faculty demonstrated that their reasons for joining the university differed from those of the Sociology and English students. The majority of these students stated that the medical choice was the only one that could enable them to achieve their ambitions. One student from F.G.S said that although it was his wish to choose Medicine, in achieving it his family had given him a lot of support. Another female student from F.G.M stated: “It was my family’s dream to have one member of the family graduate in Medicine. I believe that such a choice is highly appreciated in our society and I am proud that I have achieved it”. Another female student in the same group said, “I am sure it was a challenge to many people. Firstly, it is a long course and most likely, as long as I am still studying Medicine I shall remain unmarried whereas people in my age group will already be starting families. My mother was not so happy and she keeps saying that I by the time I finish I shall be too old to start a family. Secondly, the course is demanding and it takes a lot of effort and hard work to be successful. Thirdly, the income is not equivalent to the effort that one invests in the course.”

English

Most students who made this course were clear about the reasons for their decisions to make the choice. Although there was a difference between the groups in terms of the priority, most of them agreed that it was their individual choice. With regards to the reasons for the choice the majority of students said that they were attracted to it

because it was their favourite subject. A few participants emphasised the issue of the bright job opportunities for English graduates. One student from F.G.S. said that in their local labour market this was the only choice that would guarantee graduates ready employment. Another female student from the same group pointed out that she wanted to study English at postgraduate level and become a university academic professor.

Engineering

The main reason for choosing Engineering given by the majority of students was the **future career** opportunities that would be open to them at graduation. They said that a degree in Engineering would enhance their opportunities to secure employment in both, public and private sectors. Another reason given by a student from F.G.M was that Engineering was a new department in his local university; therefore, he would have the opportunity to excel, work at the university as a teaching assistant, and eventually gain a post-graduate qualification. Most students from F.G.J. and F.G.S. stated that their main reason for choosing Engineering as their subject was that in Libya there was a large demand for engineers.

About 8% of the students from all groups, whose parents were educated, stated that the parents influenced their choice. One of the students said that although Engineering was a good choice, and future careers were clearly mapped out, “my father made the initial choice because he worked as a head department in one of the Libyan oil Libyan companies”. However, **another student** chose it for academic reasons because “I feel that I will succeed in it”.

When did you start thinking about this choice?

Medicine

As discussed in chapter two, Libyan students initially select their academic paths at the preliminary stage and later on at **secondary level with** the view that they would specifically choose their university subject from that path. For example, if a student is keen to study Engineering, at the secondary level s/he is expected to take subjects leading to Engineering; similarly, s/he would take science subjects if s/he wants to join the faculty of Medicine or pharmacy or one of specializations related to Medicine. Consequently, the majority of students start thinking of about their subject as early as the ninth year of education. Although it is widely agreed that it is a very young age for one to make such a decision there are other factors are involved in this process in different ways. For instance, educated parents have their influence on their children at an early stage when they encourage and motivate them children to choose their subject.

One female student from F.G.J. said, “My parents have always called be a doctor because I was good at school. They supported me in choosing the appropriate course that relates not only to my ambitions but to my ability as well. I believe this is a very important decision that should depend on match between one’s abilities and desire.” Another participant who expressed views that were shared by most students in the same focus group said, “I do not know why I joined the secondary pathway of social science and when I started thinking about this specialism.”

Sociology

Students who join this specialism have to study social science at secondary level since it gives them the opportunity to choose various options. Nearly half the students, 43% of those participating in the focus group discussions, wanted to choose this options right from secondary level while others originally chose other subjects but did not obtain the required grades, therefore, they were admitted to Sociology. The rest of the students had chosen the course because there were no alternative options in universities in their local area of residence. For instance, one student from F.G.J. stated: “I wished to study accountancy but it was not available and the nearest place where it was offered was more than 80 kilometres away from my home.”

English Language

The majority of students on this specialism expressed a high interest in this choice and stated that they had considered it as early as stage nine. Nearly 17% of the students said that they had specifically chosen English in third year of secondary school, when they were twelve years of age, as their area of study. Few students, 6% of the participants in the focus group, admitted that they had not chosen this subject but were taking it because they failed to achieve the grade they need to do another course.

Engineering

Students from this specialism gave various reasons concerning the point at which they had started thinking about their choice. The majority agreed that unless you got good grades in mathematics it was difficult to achieve your ambition of getting

admission to this course. 61% of the students stated that they started thinking about this choice while at the secondary stage while other students stated that although they thought about it at that stage they were not sure that they would be able to obtain the required grades. However, one student from F.G.M said: “There is fixed rule that controls the movement between courses; hence, if a student does not reach the requirement standards he needs to study a specific program he may not gain admission to similar courses.” He added, “My background was in science at secondary school level. When I was admitted to the university I realized that Medicine is a long journey, therefore, since my grades allowed me to take either course, I decided to change to Engineering. My relative who works at the university helped me to make the changes”. Finally, three students from different focus groups said Engineering was their clear choice but their concern was with the sub-disciplines within the subject.

Summary

This questionnaire phase of the study has provided a detailed statistical account of the participants’ views on choice and selection, considering overall issues through the examination of data from 193 students including 65 in the individual interviews and 128 in the focus groups. The analysis of the interview data has enabled a focus on the following aspects:

- Issues reflecting participants’ problems in making decisions about subject choices.
- Reflections on the participants’ knowledge of the complex meanings associated with subject choices.

- Investigation and understanding of issues concerning universities located in rural and urban areas.
- Reflection on restrictions imposed by cultural, family, and religious traditions that impinge upon subject choice.
- Reflections on employability as a factor influencing subject choice.
- Exploration and understanding of concerns relating to participants' satisfaction with subject choice.

The findings from the qualitative aspect of the research have suggested five themes that influence students' thinking prior to the subject choice being made, and that would be instrumental in directing students to specific universities. They have also illuminated the post-reflection on the general decision-making process. The five themes are classified as: subject preference, influences on subject choice decisions, university location, gender, and employability. Students had to decide whether to choose a particular specialty or not. Decisions were influenced by the complexity and length of the course, the likely availability of employment for graduates from that specialty, avenues for further training, subject interest, and individual and family esteem. In the case of females, cultural, family and religious obligations were a large influence. In the context of female students, the location of a particular university in her home locality was a crucial factor whereas boys underlined the rating of the university or a specific faculty. The process was impacted upon by the availability of information on particular choices from relevant universities, parents, family and peers. There are cases where students reflect on subject choices after they have been admitted to the courses, something which is done particularly when students are

dissatisfied with the course they are following. This part of the investigation evidences the influence of parents and family on subject choice.

Chapter 7.

DISCUSSION OF RESEARCH DATA

This chapter considers the findings from the focus group, interviews and questionnaires of the case studies by analysing and discussing the issues, and the similarities and differences of the research data , as highlighted in the quantitative and qualitative analytical chapters. Although issues and data findings are grouped thematically, it should be noted that they interact. The students' concerns are discussed to examine factors that affect their subject choices. By identifying factors that students take into account when choosing their subjects, it shows what influences students' decisions of subject choices. The problems discussed by students were both personal/individual, for instance, they included parental expectations, physical location of universities, cultural and religious beliefs and their impact on final subject choices.

Several factors and influences affecting students' choice of university courses have been identifies by previous studies, mostly in the West and in the Australasian region. For example, Briggs (2006) identified academic reputation, distance from home, location, own perception, graduate employment, social life nearby, entry requirements, teaching reputation, quality of faculty, information supplied by university, and research reputation as the top ten of the most crucial factors. Pimpa and Suwannapirom (2008) identify employment opportunities, cost, and personal attitude as key to a student's choice in Thailand. They found that the five key influencing factors were personal attitude, curriculum, potential employment, attractiveness of campus, and tuition fees. **While this true in Thailand, in Libyan it is**

a case of emphasising family consideration, faith, informal networks future employment opportunities and gender issues (culture).

This chapter is an exploration of the results of the students' questionnaires, and the interviews conducted on first year undergraduate students in four universities in Libya: Gharyounis University, Aljabal Algharbi University, Sabha University and The Seventh of October University.

The study consisted of semi-structured interviews and focus group discussions with first year undergraduates. 2209 questionnaires were collected and analysed. In the focus group interviews, of the 65 student participants, 19 were female students and the rest were male. Half of the participants represented two rural universities, Aljabal Algharbi University in Gharian and Sabha University in Sabha. The remaining two were coastal city universities, The Seventh October University in Misratah and Gharyounis University in Benghazi. All the participants were Libyan who belonged to the Islamic faith. They were both from coastal as well as rural city universities. It is worth noting at this point that although Sabha and Gharian universities are considered to be cities they are located in rural areas and do not have the same infrastructures as in Benghazi and in Tripoli.

There are no previous studies on student subject choice in Libya. Nevertheless, since the students' university subject choice affects their future and the quality of the workforce in Libya. It is important to understand how these choices are made and the reasons informing the decisions. The main research question addressed by this study aims to identify the factors influencing students' subject choice with the view of understanding the implications for university provisions and its impact on society,

political and socio-economic development. In examining the factors influencing students' subject choices I wanted to investigate whether there is a relationship between non-academic facilities of the university, future careers and cultural norms, and students' subject choices. In addition, I aimed to explore issues of gender, socioeconomic circumstances, and geographical location, among others, to establish the differences and similarities between students in different regions in Libyan rural and urban areas. Inevitably, while the impact on location and gender on student subject choice for the four universities is clearly identifiable, where other aspects are concerned, for instance religion, the differences are not clearly discernible. In this study, the discussion of the research data was based on geographical location; subject provision and the differences between the student attitudes to individual choices of specialisms.

Informed by the human **social and cultural capital theories**, the research was split into a questionnaire and interviews. The questionnaire aimed to identify the factors that influence the students' subject choice, how they choose their specialisms, and the relationship between subject choices and projected future careers. The interviews asked a set of questions that aimed to identify the factors that affect student subject choices. In addition, students were asked to comment on the following: the extent to which gender influenced the choice of subjects; their future career plans; the main sources of information concerning their field of study; and finally, if they thought they had made the right choice. In addition, they were asked to comment on their views on the future job opportunities and how far religion had an impact on the choice they have made.

This resulted in the identification of the themes of interest that focused the research review. Each student mentioned at least two factors that influenced their decision to choose specific subjects. The study indicates that key influences and factors included reputation, location, employment prospects, parents, peers, community and religion, facilities, environment. The participants revealed that their decisions on subject choices depended on multiple factors. The results demonstrated that social capital, human capital and cultural capital have different degrees of influence depending on location of university and the subject itself. Guided by social capital, human capital and cultural capital theories, key themes were identified; in addition, further subthemes that emerged will presented as below.

Social capital (Parent, Peers and Social Networks)

Students suggested that parents and family members had influenced their final decisions. This demonstrated that it can be argued that they had not made their own decisions without mediation from other members of the society. This reflects on Bourdieu's concept of 'Social Capital' which comments on the resources and power of players [students] or their capital in the decision making process. Inevitably, social norms impact on the student's final choice because the student has to deal with the group of friends, peers, family and parents, each of whom bring their influence to bear on the decision although in some instances they would be acting as sources of information.

Family responsibility

Both male and female students identified this factor as crucial because they felt that in the future it would be parents' responsibility to support their children. While male

students saw it in both monetary and cultural terms (the man in Arabic culture being seen as the sole provider), female students talked about care for their future husbands, children and the extended family. Hence, the comments by one female student from the University of Sabha that concerned the complications inherent in the struggle for females to combine the search for jobs and fulfilling the cultural expectations of starting a family. I attributed her anxiety to two main reasons: the increasing number of graduates from the Faculty of Medicine, the need for medical graduates to go for further training, the requirement to accumulate several years of professional experience before achieving high professional status. However, she commented that for female medical graduates there are more opportunities to work in the villages than in the big cities.

Social Status

Students' responses indicated that their choice of subjects related to employment factors and the social status this would accord them and their family. For example, Medicine and Engineering were regarded as better choices than other subjects were. These subjects are highly appreciated, particularly in the villages for, as the data showed, some students came from families in localities where there were no doctors. Engineering and Computer Science were also highly valued, therefore, because their position in their local society will change, families feel proud of their children when they successfully secure admission to these specialisms. In addition, since it is rare to find female doctors, this educational achievement by females is likely to change rural society's view towards females. It is worth noting that in rural areas, a woman graduating with an English degree means she is highly educated. This perception is informed by several factors including the fact that English is a new area of study in

rural Libya and in addition, there is a limited number of local people qualified to teach English language.

Parents

The study highlights the Libyan social, religious and familial circumstances that affect students' choices, most notable of which is the parental influence. Other current researchers on student choice have used Social Capital, Cultural Capital and Human Capital in order to examine how students select subjects and areas of specialisation. Abouchedid (2007) and Nasser (2000) identify the influence of the social environment on students' decision; these include gender roles, life experience, and religious practices that affect their choice of specific subjects. Other factors may include the students' individual interests, peer groups, (Simpson, 2001) social and family contexts, the parents' level of education, social networks and parental influences. My study examines these factors in order to understand the reasons behind the Libyan students' university subject choices. Almost half the student participants, 47% of the students' fathers and 41% of mothers, had at least one university degree, which reflects how far parents encourage their sons and daughters to follow the higher education path. One participant from the University of Gharyounis said that while the opportunity to work as a doctor is not easy, she is determined to pursue her choice because she will work with her father in his private clinic. This implies that parents may encourage their children to follow their academic path so that they work in the same profession. Hence, these students, using their parents who are well-positioned, may be enabled to secure graduate jobs.

The impact of parents on the choice process depends on several factors that are interrelated, for instance, the point at which the parent starts to get involved in the choice process. This may relate to the point at which the parent gets involved in the process or the type of support they offer the student. The parents' level of education is a key factor since this may determine the specific specialisation that they encourage their children to choose. While similar to Sharabi's (1988) study of other Arab society, the Libyan society is patriarchal; mothers are less likely to play a significant role in advising the students on subject choice, in the recent past this practice has started to change. There is a noticeable increase in females joining the professional ranks of Medicine, business, Engineering, teaching, and computer science. Therefore, mothers are taking a more active part in the students' academic journey.

In the context of uneducated parents, however, this influence plays a significant part in the students' decision because they want their children to join high paying careers such as Medicine or education, and not to be like their uneducated parent. The research results demonstrate that uneducated rural parents encouraged their children to achieve higher levels of education in the sciences, for instance, Engineering and Medicine, which they had been deprived of earlier in their life. For example, one student, from Aljabal Algharbi, commented that his parent who felt that as a young person, he had been deprived of the opportunity to follow this professional career had influenced his choice for Medicine. For, "While both of them are not highly educated, they encouraged me to enrol in Medicine because no one in either my immediate or extended family is a doctor. This really gives me motivation to enhance the position of my parents; in addition it makes me feel proud of my academic

achievement.” Similarly, educated parents were keen to see their children take similar courses as their parents had studied. For example, one participant from Gharyounis University said: “For me it was very easy because, from an early age, my parents who are both doctors encouraged me to study Medicine.” The educated parents confirm Water’s (2006) explanation that the dominant group, in this context the educated parents, tend to use education as a means of acquiring more cultural capital. In addition, the foregoing discussion demonstrates that in Libya, similar to other communities in the developing countries, uneducated parents encourage their children to get professional qualification that may lead them to work and secure valuable cultural capital. This may not be explicitly argued; nonetheless, it may be the latent reason.

Among all the participants, ‘parental pressure’ was found to have much influence on the choice of subjects. The findings indicated 80% of the respondents from all the universities. As shown by other researchers, Moogan and Baron (2003), Domino et al. (2006), Raposo and Alves (2007) and Al-Yousef (2009), parents are an important influence in the subject choice process. In his study of parents’ participation in the decision-making of female children in Saudi Arabia, Al-Yousef found that the parents’ level of education and nature of work, whether in employment or not, is important. As demonstrated by the findings of this study (see Chapter Five), whereas students attempted to make their own decisions parents still directly (or indirectly) influenced them. For example, 60% of the respondents, particularly from families with educated parents, stated that they chose subjects that pleased their parents. One student stated: “Although I have full confidence that this speciality is one of the best disciplines and it is socially appreciated, the only consideration I took into my

account when making the decision was to meet my parent's wish". In the case of another female student, it was a difficult decision, however: "It was the only viable option that could fit with my family circumstances because both my parents are illiterate. No one told me either what I will study in this discipline or the future employment prospects for Sociology graduates." This indicated the notion of family influence on students' subject choice decisions for, while the participant was not directly affected by her parents' opinions, she took into account the family circumstances. This indicates the importance of family influence on students' subject choice.

Although the study shows that parents highly value university education, the responses from the interviews indicated that parents from rural areas have no formal understanding of the subject choice selection processes; hence, unlike urban parents, they may not offer any help to the students. The participants in this category confirmed that though parents wanted their children to pursue a college education, none of them would have the necessary knowledge to assist their children in the process of selecting courses.

Parental influence was important in deciding the students' future career and in some instances where parents were educated, the students wanted to follow careers similar to those of their parents. This was something with which they were familiar. Medicine and Engineering specialisms appeared to be more popular with the parents. Students from uneducated families tended to have more pressure to take subjects that would lead them to high paying jobs because they believed future jobs would give them the chance to acquire wealth and move up the social ladder. Nevertheless, in

the case of females, parents wanted them to do subjects that would lead them to education so that they can fulfil their roles as females in the family. This involves domestic activities, care, and nature of the whole family.

The results of the study support the view that unlike parents from urban areas, some of those from rural locations do not have enough social and cultural capital to influence the students' decision. Nevertheless, it was evident that these parents aim to get the social and cultural capital offered by careers after the students graduate with a degree from their chosen subject. During the interviewees, similar to Perna's (2000) findings concerning African Americans and Hispanic students, the students from rural communities indicated that unlike their urban counterparts, their decisions depended on various factors including the needs of the family and the community.

Parental Support

The amount of support given students by their parents and family members significantly influenced the decisions on the subjects they chose to study at the university. The study demonstrates that students did not choose a subject if their parents did not support the decision. Moreover, the parents' satisfaction with the choice is significant to many students because in Islamic religious belief this is equivalent to one's obedience to Allah. Some students indicated that this presented a challenge to them. As one student commented, "I believe that obeying one's parents is a way to success. While I have full confidence that this specialism is one of the best disciplines, and it is socially appreciated, the only consideration I took into account during the selection process was my parents' wishes". This is further underlined by the students' responses, which demonstrates that some students

commented that they were more confident about their choices because family members, peers, friends and siblings acted as agents, disseminating information, advising and guiding students on their choices. One student commented that his decision to take Medicine was made easy because his brother and parents were familiar with the subject.

Level of parental education

The data shows that students whose parents were well educated and had good careers were influenced to take certain subjects such as, Medicine and Engineering. One male student noted that he consulted his parent about his choice: “Both my parents are not educated; however, their son becoming a medical doctor was their dream. They encouraged me to choose Medicine because no one in my own or extended family is a doctor. This motivates me to uplift their social standing in the community. The additional factor is that I was getting top marks at school.” One is not surprised that the above student had a good perception of the subject and appeared satisfied with his choice.

It is evident from the participants’ responses that the lower their father’s level of education the less participation in the selection process of their university specialisation. The study demonstrated that there were very few students enrolled on the medical and engineering courses whose fathers were uneducated or had a very low level of education. For, these fathers’ limited education did not allow them to provide their children with a clear academic and future professional vision. It is noticeable that students whose fathers were better educated chose scientific subjects, for example, Medicine and Engineering, instead of literary ones, for instance,

Sociology and English language courses. With regard to mothers who have a university degree or above, the majority of participants enrolled on engineering courses were those whose mother's minimum qualification was a university undergraduate degree. However, the percentage dropped slightly, to 43%, when it came to Sociology and English. This could be the result of the parental awareness of the need for university qualification regardless of the specialism.

The participants' socialization process cannot be ignored for it is evident from their responses that, in the case of Medicine, by creating or developing a strong sense of the importance of the medical career, parents who are doctors try to persuade their children to take Medicine. In addition, students who decide to take this choice would have observed other people's perception of the profession, especially the high regard given to doctors. By contrast, businessmen are less effective in persuading their children to join the faculty of Medicine. Students in the Faculty of Engineering also demonstrated the tendency that children follow their father's profession. This was evidenced in around a quarter of Engineering students' samples. Fathers who were teachers were concerned with the future of their children in that 17.82% and 20.22% of students took Engineering and Medicine, respectively, in line with their father's advice. By contrast, when it came to students whose fathers were doctors, 16.10 % and 22.56% took Engineering and Medicine, respectively.

Similar to Eccles (1993) research in the United State of America (U.S.A), this study demonstrates that parental education influences the students' subject choices. This is compounded by the fact that because Libya could be described as a communal culture, similar to other Arab, African and Asian cultures, the parents' influence as

Hindi, Khasawneh, Qablan and Al-Omari (2008) suggest, significantly affects the student's choice. For, students are brought up to the respect their parents and other older members of the family and community as well as religious leaders. Therefore, students whose parents have a high level of education will receive more support throughout their education and career development. By extension, the students demonstrate that they could not choose a subject nor could their parents /friends/ help them, and hence, a career that does not match their parents' choice.

Parental occupation

This study from Libya confirms Leppel, Williams and Waldauer's (2001) findings in their study on the impact of parental occupation on students' choices demonstrated the probability that students whose parents were in professional careers choosing Engineering or Medicine was higher than for students with parents in non-professional jobs. Further, Leppel *et al.*'s study shows that females whose mothers were in professional jobs were not likely to take the education specialist. Studies by earlier researchers, for example, Davies and Guppy (1997) suggested that the parent's occupation, irrespective of gender, was more likely to influence the students' decision of their subject choices. The Libyan study shows that the gender factor is now changing to include mothers in the decision of children's subject choice. There is a relationship between the mothers' professions and their children's future specializations. The gender gap in Libya is evident in that more than half of females are housewives or teachers. Nevertheless, being a housewife does not mean that one is illiterate or unskilled. Where female participants are concerned, teaching was the most popular career when compared with other careers. Notably, nearly a quarter of the study sample had mothers who were teachers. The parental influence

in this context followed the trend in Medicine and Engineering for, nearly 31% of the student participants stated that their mothers, who happened to be professional teachers, influenced them to choose either the English language subject or Medicine. Mothers had the view that graduates of English are destined to be teachers, a career that suited the image of females Libyan society. The study suggests that while a mother's occupation as a homemaker or as a teacher is the most effective factor that determines the child's future choices of specialisation where science professions such as Engineering and Medicine are concerned parental occupations is the most determining factor. However, if the mother works in a profession that is different from the foregoing, she prefers her children to take subjects that will lead them to work in alternative jobs.

Human Capital

Economic

Economic reasons were a key factor because education and has clear influence on students choice of subject from different aspects. Students are more focused on their future career and are keen to choose the subject that can secure job opportunity. They, especially within the English and Engineering departments, were more concerned about future career earnings. About half of the students indicated that their choices were influenced either by the need to increase the family income or to become financially independent. Many of these students were from the rural areas where, because of the scarcity of jobs, the rate of unemployment is high which means most families have limited resources. Accordingly, the students strive to go to

university to get higher education in order to apply for jobs that can help them to provide financial support for their families.

The research results demonstrate that students, especially in Engineering and English language departments, are most likely to choose their subjects as a result of the high demand for people with skills from these subjects. For example, one student, from Aljabal Algharbi, said: “It is one of the disciplines on high demand in the labour market. In my local area there are few people of my age who are proficient in this language”. This shows that 80% of male respondents regarded job and income security as important factors influencing the students’ subject choice. Thus, they chose subjects that would provide the maximum opportunities to secure good jobs. In addition, material income was a significant influence in choosing a subject. Many respondents said that their ideal job should make them high earners since this was important in supporting their families as well as fulfilling the parental and social expectations.

Employment prospects and future earnings

In this study among the Libyan students, the key factors highlighted by students concerning future employment prospects included, family responsibility, community responsibility, parental expectations, maximum income rewards and security. Students were optimistic that since the Libyan economy was expanding together with new projects and an improving physical infrastructure, they would have many employment opportunities. However, the question of financial return for university graduates was still a controversial. One student from the University Sabha stated: “This specialization could be the only choice that guaranteed the opportunity to work

in my area. The salary could not be high, especially if the graduate works as a teacher.” Another student, from AljabalAlgharbiUniversity said: “I entered this specialty with full conviction. I would be completely satisfied if I had a job opportunity in the future after graduation and not find myself unemployed or working in the field of a non-specialist.” As Waters (2006a) has explained concerning the experience of international students in universities in the West, the quest for a university degree does not only constitute the need to increase one’s human capital and the ownership of cultural capital but it also focuses on the increase of their cultural capital. For most of these students, undergraduate education will endow them with cultural capital because, English being the medium of instruction by the end of the course they would have acquired better English language writing and communication skills. (Waters and Brooks, 2010)

The results of this study demonstrate that expected earnings from a particular career influences subject choice. This is supported by one of the principals of human capital, which states that individuals are likely to choose the best possible type of subject depending on the financial returns from education. Thus, the research demonstrated that future earning significantly influenced the choice of one specialism over others. For instance, in my study more students chose to do Engineering, and English because they thought that unlike the Medicine specialism, these subjects would lead them into secure employment in different fields irrespective of their individual specialisms. Nevertheless, for many students future earnings are one of the key determinants for choosing a science subject. It is also notable that female students were more likely to choose subjects leading to careers

that can be combined with their married role within the Islamic culture **because of the importance of caring and nurturing the family.**

Job attributes

Most participants indicated that the characteristics of their desired future job, among which are availability and flexibility, were an influence on the students' decision of the university subject choices. In addition, the multiple career paths in Medicine influenced students intending to choose the subject. With regards to the current post-conflict socio-political and economic Libyan context, it is hoped that multiple reconstruction projects and the transformations will occur. Further, it is also hoped that the labour market demands will expand and more opportunities will be availed to university graduates. Within the education sector, new developments are likely to include curriculum structures and pedagogical changes. In addition, vocational education will be revitalised and prioritised to fill the existing gaps in various industrial professions that currently rely on foreign skilled workers.

Career plan after graduation

According to the data, there is a connection between future career plans and subject choice decisions. Students choosing Medicine, Engineering and English were more likely to be focusing on the prospects of the future financial benefits than other students were. This echoes Dlamini *et al*(2004) and Stebleton (2007) studies, which demonstrated that those students' subject choices were influenced by financial factors. Nevertheless, those on the Sociology course explained that an undergraduate degree was important because it would improve their chances of getting jobs. They agreed that they might not need a degree in Sociology to do the job that they might

secure after graduation. The students held the view that apart from graduating from professional courses, there was a possibility that not all graduates will secure well-paid jobs.

Cultural Capital

Gender and Choice of subject

The study demonstrates that, as noted by Hall (2010), most female students who took part in the research consider gender when making subject choice decisions. The research participants' responses show that gender significantly affects the probability of choosing a particular specialism. Female students are more likely to choose Sociology or teaching as a specialism. For example, one student, from the Seventh of October said: "From the social perspective, teaching is highly appreciated and recommended as a job for females. This confirms to nurturing role. Teaching is a profession where females can easily find jobs in their locality." Until recently, in Libyan rural areas, female teachers were given priority over men when it came to securing jobs in schools within their neighbourhoods. This factor is related to employment prospects, family responsibilities, cultural and religious values. As observed from the responses during the interviews, the perception that it is easier to succeed if one opts for a humanities subject means that decisions to choose science subjects are based on issues such as individual ability, family background, gender and socioeconomic circumstances.

The degree to which the student's gender affected their subject choice was interesting to study. Today the conservative nature of the Libyan culture means that females have to study in universities that are close to their families. Therefore, from

a gender viewpoint, the location of the institution has a significant influence on subject choice. Participants interviewed in this study commented that the location of universities in rural areas has changed society's attitude. In spite of the obvious deficiencies in various aspects of academic, technical and physical infrastructures, the presence of universities and colleges in many villages and rural areas, have provided opportunities for females to join higher education institutions. It is now acceptable for females to study for a university degree whereas in the past, in some rural area, it was impossible for them to get to that level for a number of reasons. For example, they would not be allowed to travel away from their home areas, and in addition, they would not attend university because females and boys attend the same classes and sat in the same lecture rooms. As recent as 2006 in the University where I worked, the Aljabal Algharbi University, within the same lecture rooms, male students sat in separate spaces away from their female counterparts. This is further underlined by the fact that rural communities keep a close watch on male members of the academic staff lest they break the customs by talking to the female students. This reflects the conservative cultural values that still influence society's perceptions in the rural areas as far as male and female relationships are concerned outside the family.

The findings further demonstrated that the subject choices of most female participants were influenced by the geographical location of the institution and subject provisions. For instance, for religious and cultural reasons female cannot work in the desert as geologists, even if they are trained and highly skilled.

As Table 2 indicates, the data demonstrates that there is low percentage of female studying Engineering. This shows a clear cultural dimension where the community believes that the Engineering specialism is not fit for females. One compares these statistics with those collected in past studies they show an improvement in the number of females enrolled on this course. One female interviewee who said that she wanted to change the traditional attitude of the society to female engineers confirms this. She further reaffirmed her determination to succeed and prove to the community that females can be successful in this area of study. The results also show the relationship between Libya's education structure and its patriarchal culture, which enforces gender roles, and cultural and religious values. Traditionally, females are expected to care for the family and nurture after children. Nevertheless, the results underline the need to liberalise the social values, which would enable females to choose subjects taught at any institutions and in addition, to have various career opportunities. Thus, although currently females do not play an important role outside the economy of the family and the society, the liberalisation of the system will stop them from being dependant on men and hopefully will bring them to the economy as a whole.

Religion

Cultural norms and religious values exercise pressure on the student to choose specialisms and future careers that may not be his personal choice. For instance, more female than male students are likely to express different attitudes towards different humanities and science subjects. Significantly, religious values have a role to play in influencing the students' subject choice; therefore, they are crucial in understanding why students, mainly from rural areas or traditionally patriarchal

families, stereotype some subjects. In their responses students referred to cultural and religious values as critical in their choice of subjects. Similar to Edwards and Quinter's (2011) findings in their research on Kenyan students' subject choices, religion was a significant factor influencing female students' subject choice decision. In this Libyan study, one student, from the University of the Aljabal Algharbi said: "I wanted to study French but my father advised me to study English because there are better job opportunities in that area. I was initially confused but then I prayed to Allah to guide me so, finally I have chosen English discipline." Because society and religion as well as gender identity is very important in Islamic culture, in their responses, females stated that their subject choice had been influenced by the ability to balance work with family and religious responsibilities and values.

Although the quantitative data analysis of the results show that religion did not have a direct or significant influence on students' choices, from the interview and focus group responses it can be demonstrated how influence of religion is embedded in the choice. For instance, some female participants indicated that they changed the subject choice, for instance in the case of Medicine, because they did not want to work on dead bodies or treat male patients.

Research over the past few years suggest that people's vision is fettered with their cultural beliefs and there is a fundamental identity which operate as an effective filter to choose the students' style of life in Arabic and Islamic countries. **Table 16** classifies students into two categories: first, religion as affective in selecting one specialization rather than other, secondly a group that said they were not affected by religion when deciding on their specialization. Although the four most popular

specializations were not directly related to religion or Islamic study, **Table 16** indicates that there is minor group of student who are influenced by religion whereas, 95% of student see that religion did not influence their academic choices.

The results obtained in this study indicate that the students' family background and social networks significantly influence students' subject choices. As mentioned earlier, the difference in the coastal cities and rural family incomes influences their ability to travel between home and study locations. Thus, restricting students in the rural areas to subject offered at local universities. This is particularly pertinent to female students.

According to the research data, where it concerned the choice of professional courses, for instance, Medicine and Engineering, students from rural universities had lower aspirations to choose professional courses than those for students from coastal city universities. **Hossler et al. (1989)** suggest that students in urban areas are inclined to be more ambitious and have high aspirations than those from rural areas. The results in this study may be ascribed to the economic conditions of the families and the absence of social networks where students may get information on subject choices and possible avenues for future employment in some professions.

Sub-findings

Geographical location

In the Libyan context, for the geographical location of the universities, responses were mixed specifically because the factor is multi-faceted since gender, family and the universities' physical locations, infrastructures, subject provision and

accommodation affect it. University facilities in Libya differ depending on the location, whether rural or coastal or whether they are new university or long established ones. (Osborne and Shuttleworth, 2004) Contrary to Western contexts where, previously, parents encouraged their children to choose subjects at institutions away from home with the aim of enabling them to gain experience and independence, in Libya, as the responses demonstrate, students, particularly if they are female, opt to study at local universities to remain home. Whereas 60% of the male respondents preferred to study at a local university, for religious, cultural values and familial reasons nearly, 95% of all female respondents considered to study at local universities irrespective of the quality and subject provision. At the Aljabal Algharbi University in Southern Libya, only 5% stated that they would choose a subject at a university away from their family location. Although rural communities are not wealthy and, apart from cultural restrictions, travelling away from home would be expensive, in the contexts where families have relatives in the capital, female students are more flexible. Therefore, for purposes of education they can travel to city universities to study their desired options. Female students from families resident in the rural areas studying at local institutions however, are more restricted by religious observance than those from coastal city university. Notably, while male students may be encouraged to choose courses at any university particularly if it is similar to the father's profession, parents encourage female students to choose subjects taught at universities closer to home. The findings confirmed that female students are more likely to study subjects provided by their local universities instead of travelling to other institutions that provide better or wider undergraduate degree programmes.

The problem of university location is not only because of the distance between students' homes and the institutions but it also relates to the road and transport infrastructures. For, even if the students opted to study at a local university the bus/taxi services are unreliable or unavailable. In addition, some universities were established without any proper planning but because of the paternalistic government policies. Thus, they lack proper academic facilities and resources.

One of the most frequent influences noted by the participants, that confirm previous research by scholars such as Hossler *et al.* (1989), was the quality and reputation of the department and the institution. In this context, a cross-section of students would prefer to study at old coastal city universities, which have worldwide academic reputations. For example, one student stated: "It is a big different if you study in Gharyounis or Alfatah because they are more advanced in terms of facilities and teaching staff. Moreover, they are highly regarded in Libya of course by the students themselves."

The desire to learn at a reputable institution also relates to future employment opportunities, one of the most frequently noted factors, specifically because, as scholars such as Brewer and Zhao (2010) have indicated, studying at such an institution implies that a graduate will not struggle to secure a well-paid job within his subject specialism. According to the responses, the students check and assess the opportunities that a qualification from a particular institution would give them in their search for jobs after graduation. Further, geographic location is important particularly because in some universities the faculties are spread over big rural areas where there are no reliable means of transport. This discourages students from

selecting certain subjects, for example, at Sabha and Aljabal Algharbi Universities, the departments of Medicine and Engineering are spread over three campuses in different cities which seems to be difficult not only for female but even for male students to commute from home. Hence, one student stated: “This specialization [Engineering] is not available in my University so would I have to move to Tripoli. As a female in Libya, this is unacceptable to my parents.” Cultural and gender are here shown to influence subject choice.

One major advantage in rural universities is that they have large tracts of land. Therefore, they have the potential to put up new buildings to accommodate the expanding numbers of undergraduates. In addition, granted more funding and trained staff they have the capacity and potential to start courses previously unavailable on these campuses.

Reference groups

In this discussion, a reference group is a category that includes individuals who are likely to have some influence on the students during the selection process. The Libyan community is a closely knit community, specifically in respect of clan and family networks. Similar to Ball *et al's* (2000) findings, siblings, family and community influenced students who admitted that subject choice decision since they did not want to be regarded as dissenters. The data analysis demonstrates that there is a connection between the influence of people in this group and the students' interest in, or decision to study, a specific subject (Yamamoto, 2006; Ceja, 2006; and Al-Yousef, 2009).

Social network and social norms

Several respondents (70%) mentioned social status and the prestige of the subject as one of the factors influencing their subject choice. For instance, Medicine was highly valued by society and it gave students a high profile among their peers. While English was highly regarded, students indicated that females would not be encouraged to take it if they were to work in the tourist industry; hence, it could only be recommended if they were aiming to become teachers. Notably, some respondents stated that people who chose science subjects were highly gifted since they were more difficult to study. Hence, science graduates would have a high status both, among their peers and society. Evidence from the interviews showed that parents and society shared ideas about jobs that were ideal in relation to income and market.

Male and female siblings

In Libya, it is assumed that when a family has more male siblings than female they will have more freedom to choose a subject even if it is offered in a university that is further away from their home location. It is worth noting that within these families, the eldest son is expected to be an example for his brothers and he receives greater attention from his father. For example, 22.20% of the students in Medicine come from families that have three boys as compared to Engineering where 29.46% of the students come from families with a similar number of male siblings. If a student has three male siblings, he tends to choose either science or Engineering subjects. In the context where there are six or more male siblings, there is a diminishing chance that boys will choose a medical or Engineering subject. This inverse relationship that governs number of brothers in one family and the decisions to choose either

Medicine or Engineering subjects may lead the family to select only one brother to join either of the courses. Because of the Libyan society's attitude to gender and Islamic cultural values it favours male children and pays more attention to their academic and economic development. In the case of females, the data shows that where there are three female siblings, the percentage of females (20.04%) choosing Medicine is higher than when a female has six siblings for, only 8.03% will choose this subject.

University reputation as a factor in subject selection

Universities offer different programmes that aim to meet the students' interests in individual subjects. The study demonstrates that, as indicated by Nguyen and LeBlanc (2001), the reputation of the institution may influence the student's subject choice. For, while reputation may refer to academic reputation, university status and ranking in the West (Blasko *et al.* 2002), in Libya, it will further be understood in the context of its observance of Islamic religious values. It should be noted that active university life does not influence students' perception in Libya, particularly females students, as it does not similar elsewhere, the relationship between religious observance and perception and the subject choice.

The responses demonstrated that Libyan students recognize the academic reputation of the university institution, whether it is an old or a new university. Thus, the significance of university heritage influences the students' perception and decision to choose subjects delivered at particular institutions. This does not exclude other influencing factors, for example, this factor was affected by the perception of the university by their parents, peers and family. The finding particularly relates the

students' expectations since they relate the institution to the possibility of finding well-paying jobs.

Why go to university

Students have to make complex decisions to attend university or study other options available at higher education institutions. The research findings demonstrate that the eight criteria, which motivated students to go to university, include financial and academic reasons. 67% of the student participants stated that it was important for them to get high paying careers while developing their knowledge came second. Students enrolled on courses in the coastal city universities are at an advantage because they are able to continue either with postgraduate studies or with professional training whereas at the moment, these opportunities are not available for rural city university graduate. It is hoped that the socio-political changes taking place in Libya will accommodate positive transformation in Libyan higher education.

Choice satisfaction and perception

The analysis data of this study has identified varied institutional, social and personal factors. These include the academic quality of programme, the type of university and its reputation, and its location; recommendations from family and peer groups, availability of courses and admission requirements. (Briggs, 2006) According to the results of the study, some students considered the position of the university, for instance, its history and structures, as a significant influence on their choice of HE programme. In Libya, students in emerging universities, for instance, at Sabha and Aljabal Algharbi, complained about the limitation of the subject provision, the distance between the departments in the same university, which in many instances

makes it difficult for student to travel long distances every day. Although there is now fixed pattern for admission, some subjects such as Medicine are very competitive. Therefore, students have to achieve high grades before they can gain admission to the course. The grade requirements vary depending on the final results at the secondary educational stage. Rather than location and length of institutional establishment, the availability of the course in some universities is a significant factor that attracts applicants to specific universities.

The research showed that some students made subject choice decision based on their individual interest in a subject not on the society, friends, or relatives' perception. This was more specific to students in language and Engineering subjects than to those in Sociology. For example, one student stated: "I have chosen this specialty with confidence. Throughout my study at secondary school I was very impressed by Ibn Khaldoun, the Arabic social scientist." While it is a fact that Sociology graduates have a low image in Libyan society, students either influenced by parents or friends to choose their subject or, forced by the unavailability of subjects at local universities, reported a low level of satisfaction. However, some students, 41% associated satisfaction with success whereas others, such as students who are studying English language, linked satisfaction with their desire and aspiration.

During my study in Libya, participants have identified the provision of specialisms offered by different universities as one of the important factors influencing their choice of subjects. Additionally, the responses show that the students' perception of the university's social environment affects their subject choice decisions. The high prestige that a student receives after graduation depends on the subject s/he takes at

the university. This attitude is quite prevalent in rural areas where it is only recently that people started graduating in science subjects like Medicine. The perception of the specialism by the students, parents, peers and the community has been identified as some of the influential factors in the choice process. The perception and hierarchy of the specialism relate to social esteem and is linked to the future employment opportunities. One could argue that satisfaction at this stage is not final as students are not mature enough and they are at a very early stage of their academic career to judge whether their current choice is right.

It is notable that there are variations between the choices made by students from coastal cities and rural areas. Responses of participants from coastal cities indicated that because they were more influenced by their parents in professional jobs, siblings and education level of both parents, they were more likely to choose science subjects than other students. Thus, the parents' educational level and their collective income significantly influenced the students' subject choice. Therefore, where a student's choice is made without external influence it is up to him/her to decide whether or not he is satisfied.

Information

This study suggests that in the context of poor marketing by the universities students depended on informal networks for information concerning university and subject choice. It seems that the impact of any provision of information varies from one department to another. Most students, 65%, stated that they had no source of information whereas 21% stated that they relied on their friends to advise them on which subjects to choose. For example, one participant from the Sociology

department in University of Sabha stated, “I did not find guidance or consultation to help me. I made my choice basing it on what I had heard from informal sources that this specialization is easy for students who want to be successful”. However, another student from the medical school noted that the most significant information for medical students should be provided at a later stage. She said: “I believe that the valuable information that a student needs is about the advanced stages of his university studies since it will help him to specialize in specific areas of Medicine in preparation for competing in the job market. It is difficult for a student to search for this information without any other support.” The absence of a university ranking system and official information in Libya means that students continue to rely on social networks for their information and will make decisions depending on what they are told.

Information about subject

Students noted that their indecisions about some subjects were a result of lack of career guidance. As shown in the Qualitative Analysis chapter, students articulated their desire to get more subject specific information that could give them an idea about the subjects of specialisation and the career prospects after graduation. One student commented: “It is difficult for a student to search for this information without any other support.”

Perception of subject

This study establishes that students’ perception of a subject is an important choice factor. Students had preconceived perceptions of a selection of subjects, for instance, English, Medicine and Engineering that, depending on the participants’ gender, were

regarded as useful. Students expressed varied views about Medicine, English and Sociology. They highlighted that Sociology was good for female students because they would be able to find work. However, the views about Medicine showed differences governed by the Islamic religious values since females would not be expected to treat male patients. However, a significant number of students in different subjects expressed their interest in the subject regardless of the payment or the income from this specialization. For example, both English and Sociology students stated that they chose the subjects because they enjoyed reading books English or, as mentioned above, they had read articles written by sociologists such as *Ibn Khaldoun*.

Personal interest

As demonstrated by the results of the data, more than 80% of the participants' subject choice decisions were influenced by their individual interests in specific careers. This is inevitable since most of their career interests are shaped by the socio-economic environment, parents, family, peers and the community. The possibility of matching career choice with subject choice gives them personal satisfaction.

Changing the subject of choice

The responses from the participants were in two categories. First, the first category included clearly defined and focused choices on specific specialisms that matched their initial desires. The second category included those who were allocated subjects that conflicted with their desired subjects of study. According to the data results, Engineering students followed by medical students had the least discrepancies between their choices and in their final subject allocations. However, 24.12% of the

students in the Sociology Department indicated that although they were not satisfied with the course it was satisfying just to be admitted to the university. This shows that where professional courses that have a clear link with the job market are concerned, for instance Engineering, Medicine and English, students have more satisfaction with their subject choices.

First choice of subject and why change

Another aspect highlighted by the quantitative data results is the failure by the participant students to match their desired subjects with the final options allocated to them by the institutions. The research findings show that although students usually study the subjects of their choice, 0.22% of the participants reported that they change their specialisms; for example, computer science and economics students, changed because of the unavailability of the subjects of choice at the institutions where they were admitted. Several reasons that may account for this behaviour include: low university entrance grades, parental influence, friends, location of the institution, and availability of the subject at the specified institution. Students in rural city universities noticeably change their choices much more than their counterparts in coastal city universities specifically because of the restricted subject and programme provisions as well as the spread of faculties over several university locations. Despite the reasons for changing the subjects, the importance of subject choice decisions is significant since the effect of making wrong choices mean that students will be tied to the subject specialism that does not meet their desire.

Choice of subject: was it easy, or difficult?

The study asked participants taking Medicine, Engineering Sociology and English, to review their process in deciding to choose subjects to study at the university. While most participants from the Sociology Departments expressed the view that it was difficult for them to select the subject students from the other three departments stated that they had no difficulty in choosing their subject specialisms. Sociology students in the Focus Group identified lack of support and guidance as a key factor affecting their selection process; in addition, they highlight the fact that the future career prospects for Sociology graduates were uncertain. However, the main problem encountered by the medical students related to the fear that their poor English language skills may not enable them to cope with the subject content since most textbooks are written in English. On the other hand, students who chose English language were doubtful about the language competence of the teaching staff at the institution. Hence, while they would graduate with a degree in English they were uncertain about their job prospects after graduation since they may not have all the required skills to perform their duties. Finally, Engineering students found it easy to make the choice although some of them were worried about the availability of qualified teaching staff at the rural universities. In addition, Engineering being a wide subject, they were worried that some sub-choices within the Engineering specialism may not be available at these universities. It can be deduced that the quality curricula, infrastructure, culture and geographical locations are important factors in subject choice. One can add that the recent political changes in Libya have been of great concern to the university students.

Do you think it is the right choice? Why?

According to the research data, the majority of the participants indicate that they made the right subject choice. They give a variety of reasons that include: the employment opportunities that would be opened up on graduating with a degree from the respective subjects; the financial benefits to be gained from their future jobs; and finally, their passion for the subject of choice.

When did you start thinking about this choice?

The responses revealed that perceptions of individual careers sparked off the students' interests in the subject during their secondary stage of education. In Libya student start specialising in the ninth year of their education, therefore, they identified this as a significant point in their learning journey. At this point, they made decisions to take either sciences or literary subjects, hence the deliberations on the various subject choices. Furthermore, the students' ability, while at secondary level, to excel in the subjects relevant to the specialism, increased their interest in the subject and led to their decision to study it at university in the future. This confirms Perrone *et al.*'s (2001) findings, which showed that students' interest in the subject influences their decision to pursue a specific career.

Conclusion

The research demonstrated substantial differences between subject choices made by urban and rural students whereby the latter are destined to study in poorly equipped rural universities. As evidenced in the responses, there is no equity in the provisions of Libyan universities. A further result is that the student's academic ability does not have much influence on the selection process. Other factors such as the parents' level

of education, institutional infrastructure, career prospects and geographical location play an important part in influencing the decision. More interestingly, the study established that students from urban areas with educated parents are more likely to take courses offered in long established universities in the cities. Additionally, where a student was the first person in the family to go to university, s/he preferred to study in a local university. As Pimpa and Suwannapirom (2008) and Pugsley (2004) among others have noted, living near their family homes enabled the students to retain the family and emotional ties with the family members and friends. Participants mentioned various people including peers, siblings, friends, parents and family, who had influenced their decisions. Peers were noted to have influenced the decisions by providing information and encouragement.

Chapter 8.

CONCLUSION

Introduction

This chapter concludes the thesis by summarising the aims and objectives of the research, and the findings, in relation to the research questions presented at the beginning of the study. The findings are grouped under four main themes: the decision-making process, factors and issues affecting Libyan students' decisions, university and subject information, and students' future prospects. In addition, the chapter considers the contribution to knowledge made by the study, the limitations within the study and then suggests some possible further research area.

Research Aims

The study aimed to review relevant existing literature within higher education in order to study and evaluate the subject choice process for students in Libyan Higher Education system.

Research Objectives and Questions

The research objectives and questions were derived from the review of literature on the subject choice relevant to the Libyan higher education system. The policy implications for Libya's higher education institutions are identified. This is done in relation to feasible university subjects and to a career guidance system, which would support students in their decision-making process throughout their stages of education.

To accomplish the foregoing objectives, it was necessary to ask the following research questions, of which the main question was: what are the main factors influencing the choice process in respect of field of study for first year undergraduates at Libyan universities? Furthermore, additional sub-research questions were shown to include: the reasons for choosing to go to universities, the distribution of gender within the chosen subjects as well as the extent to which gender plays role in the choice of subject process; whether or not students are given sufficient guidance and information to facilitate the choice of field of study; finally, where students obtain information regarding their field of study and finally the future job prospects.

The overall intention of securing answers to these questions was to enhance the understanding of their implications for university provision, and of the impacts of the current provision and the subject choice process upon society, politics and socio-economic development. The patterns of provision and student choice drivers were found by analysing the research data collected from the focus group, interviews and questionnaires, which also asked respondents to comment on the extent to which gender influenced their subject choice, their future career plans, the main sources of information concerning their field of study, and finally, whether they believed they had eventually made the right choice.

Before considering the conclusions reached in respect of each objective, three fundamental issues are worthy of comment. The reason why students choose to attend university, their perceptions of subjects, and the concerns and influences

brought to bear in the choice process. These are briefly concluded in the following three sections.

Why do students choose to go to university?

The study found overwhelmingly that in addition to other multi-factors, future economic prospects represented the motivation for students choosing to go to university. The desire to acquire a qualification that will lead into a career providing a comfortable future and social prestige was the prime motivation for the investment in several years of post-compulsory education study among other concerns by the students. However, the fact that in Libya all university education is free is a strong influence in allowing students the option to remain in education for seven years, as for example is required for Medicine.

Libyan students' perceptions of subjects

Undoubtedly, the information possessed by students about the choices available in HE/HEI served as a substantial influence upon their actions, and in this respect, it was demonstrated that the peer group, parents, and the wider family network provided the detail upon which choices were made. Furthermore, it was apparent that these were linked to future job prospects, and implicitly to career and social prestige enhancement.

The evidence showed that students had preconceived ideas regarding the value of the different subjects in achieving these employment and social aims, and that these ideas were rooted in cultural imperatives. English was regarded as useful for both genders as it is very much in demand in all business enterprises. Sociology was considered particularly good for females since this subject would guarantee local

employment in a teaching capacity. Medicine was regarded variously as on the one hand being a useful specialism for female students since Libyan culture requires female physicians for female patients, and on the other hand as restrictive for females since their practice could only apply to other females and children. The absence of objective and professional career guidance provided by universities themselves that might have underpinned the development of more accurate perceptions of the opportunities associated with different subject specialisms was noted.

Parental influence

Interestingly, parental involvement, whether in the form of pressure or strong encouragement, to pursue a specific subject discipline was reported by a large majority of participants (80%) from all the universities. Moreover, even where students attempted to make their own decisions, parents still directly or indirectly, influenced them.

This pressure from parents, whether weak or strong, is seen to be the outcome of parents' cultural and religious values which produce norms of behaviour that prompt parents, knowingly or otherwise, to choose subjects that will steer their children into careers that the children themselves might not want. Significantly, religious values have a role to play in influencing the students' subject choice; therefore, they are crucial in understanding why students mainly from rural areas or traditionally patriarchal families stereotype some subjects. Students themselves did acknowledge the criticality of cultural and religious values to the future careers, and hence subject choice, and female students especially emphasised the difficulty of balancing all these values with a career that met their personal interest. The task of securing a job

immediately after graduation and simultaneously bearing in mind the fact that being female, they would have to plan to meet the cultural expectations of starting a family, provided a challenge to female students that male students simply did not have. The outcomes were not surprising, female students channelled themselves, or indeed were directed by parents into subjects that would allow them to teach so that they would be able to combine a career with family responsibilities (favourable working days, close proximity to home, secure and protected environment).

Boys, on the other hand were influenced by parents and social attitudes towards subjects that would bolster their prestige in society, present them with high earnings and/or job security, and essentially fit them as breadwinners. That said, in rural areas where employment opportunities are less plentiful than in the cities, children of both sexes are encouraged by parents to obtain qualifications that will enable them to contribute financially to the running of the family home. And in this respect, students perceived Engineering and English language specialisms as equipping them with particularly marketable knowledge and skills. Without doubt, expected earnings from a particular career influences subject choice.

University location

The location of the university is also significantly influential on subject choice because some rural areas have not traditionally offered a comprehensive range of subjects meaning that females were restricted to what was available locally. That said, it is now acceptable for females to be educated to degree level and to study alongside boys with a view to entering the same career. However, such liberalization of social values is by no means firmly embedded yet, and in the rural areas, females

are challenged in their intellectual and academic development by lack of access and general support from society. This is prevalent despite the fact that student responses demonstrated the rarity of finding female doctors in some rural districts, and that for a daughter to study Medicine in such an environment would be a genuine social good. Such educational achievement by females is likely to change rural parents' attitudes to female education.

However, the stark reality now is that a disparity is evident in the quality of the advice available to children from parents in urban and rural surroundings, since the latter often do not possess sufficient social and cultural capital to constructively influence their children's decisions.

Where parents are in a strong position to advise their offspring, one consideration they may invoke is the reputation of the various universities offering a course of interest. Such reputation is likely to be built on age, the facilities at the university, and the way in which the university observes Islamic religious values. Nevertheless, universities do not market themselves so potential students are dependent on informal networks for information concerning university and subject choice, and this is clearly a subjective process.

The study demonstrated that students tend to change their subjects throughout their undergraduate stage. This comes about as a result of several reasons that include the governments' insistence on making students specialise early at the secondary school stage before they are academically ready, secondly, the lack of information on university courses, and finally the unavailability of their desired courses in the local universities.

The study found that students used various information sources in arriving at their subject choice but that formal information showing course prospectuses and methods of assessment, among other things, did not form part of that body of information with the result that all the information they received was to a very large extent, subjective. Consequently, it is recommended that the way schools and universities communicate details of undergraduate course content and requirements to students, be fully explored to highlight areas of weakness in these strategies and propose coordinated systems of communication between university departments and students as well as schools and students concerning entry requirements, subject specific information and future career opportunities. As part of such exploration, universities should be encouraged to appoint careers advisors to appraise students of the employment opportunities available to them on graduation. Moreover, in the internet-driven, multiple-media age, universities should make full use of technology when deciding how to communicate information to potential and current students.

In an attempt to maximise students' opportunities to select the most appropriate subject for their future, universities should mount workshops and seminars for potential students in which accurate course information is provided in advance of university entry. This would provide clarity for students and give them more confidence about their subject choices. Additionally, careers officers from universities should perform an outreach service by visiting schools to work with the teachers, students and parents well in advance of university entrance.

Influences on subject choices during the decision-making Process

In addition to the very important aspect of student perception of what a subject specialism entails, it was further demonstrated by the findings that, as highlighted by Bourdieu's theories of human, cultural and social capital, there are personal and external factors that influence students' decisions on subject choice. Personal issues may include subject interest, perceived difficulty of the specialism or subject, academic competence, and gender, while external factors include location, future employment opportunities, parental and family expectations, cultural, religious and social values.

Objective No 1: To review the literature on the student choice in HE to establish what choice models exist internationally

Specifically, the study reviewed findings by current researchers on student choice who have used social capital, cultural capital and human capital theories in order to examine how students select subjects and areas of specialisation. The influence of the social environment on students' decisions was identified by Abouchdid (2007) and Nasser (2000) who pinpointed gender roles, life experience, and religious practices as influences, and by Al-Yousef (2009) who confirmed parental participation in the decision-making of female children in Saudi Arabia, and the importance of parents' level of education and nature of work, whether in employment or not. The literature revealed that the choice process has two levels as already indicated, the first being the choice to attend university in the first place, and the second being the choice of a specific subject. Overwhelmingly, it was confirmed that future earning potential significantly influenced the choice of one specialism over others, and that those with

high aspirations felt these could be met by choosing a science subject. Female students in Arab and Islamic societies were shown to consider their future as nurturers and mothers when choosing subjects and opted for specialisms that would lead to careers that combine easily with their domestic responsibilities. Implicit in this is the recognition that the specialism must prepare them for a career that offers employment opportunities within their locality, so that no need to travel without escort as required in the Arab and Islamic culture.

Additionally, the literature emphasizes that students' perceptions of what a subject specialism entails are important and that these perceptions arise from discussions with parents, extended family, peers, and the general community. Part and parcel of the creation of such perceptions are ideas relating to how one career rather than another can enhance an individual's social standing, and such enhancement is naturally desired by all parents for their children. The study has demonstrated that the student subject choice depends on several inter-related factors, for instance, the point at which parents begin to become involved in the choice process, parents' own level of education, and occupational and professional status.

Objective No 2: To identify policy implications in respect of an educational guidance system to support students in their choice process in different phases of their educational careers

In summarizing how the first two objectives have been achieved, it has been demonstrated that a connection exists between the students' subject selection and gender, location, parental education and career, educational expectations, familial resources, and social networks. The study has identified how socioeconomic status is

significant in influencing the students' subject choice and future career plans, especially in a communal society. To this end, it has highlighted the importance of recognizing the individual and group distinctions between rural and coastal city student communities.

Several policy implications were identified by the researches as a result of this knowledge and understanding as follows:

- The government and universities should examine the interface of multi-factors in order to evaluate and understand the pattern of student subject choices. This would support new institution planning developments and help in filling in the gaps in the labour market with trained and skilled workforce.
- The study found that students used various information sources in arriving at their subject choice but that formal information showing course prospectuses, methods of assessment, for example, did not form part of that body of information with the result that all the information they received was to a very large extent, subjective. Consequently, it is suggested that the way schools and universities communicate details of undergraduate course content and requirements to students, be fully explored to highlight areas of weakness in these strategies and propose coordinated systems of communication between university departments and students as well as schools and students concerning entry requirements, subject specific information and future career opportunities. As part of such exploration, universities should be encouraged to appoint careers advisors to appraise students of the employment opportunities available to them on graduation. Moreover, in the multiple-

media age, universities should make full use of technology when deciding how to communicate information to potential and current students.

- In an attempt to maximise students' opportunities to select the most appropriate subject for their future, universities should hold workshops, open days and seminars for potential students in which accurate course information is provided in advance of university entry. This would provide clarity for students and give them more confidence about their subject choices. Additionally, careers officers from universities should perform an outreach service by visiting schools to work with the teachers, students and parents well in advance of university entrance.
- The previous policy implications contains a training implication since in order to discharge the role suggested, careers advisers will require regular updating in respect of the national labour needs. Additionally, they will require skill-development in general communication to ensure effective interaction with parents, and indeed teachers, who may have fixed, and erroneous ideas about the career and employment options that their children may have. Hence, the suggestion is for a structured training initiative to develop this category of adviser.
- The finding of the thesis suggests that the Ministry of Education undertake an evaluation of the systems used by schools and universities to communicate with parents since parents have emerged in this study as the greatest influence on students' decisions regarding subject choices. A national information campaign aimed at encouraging parents to support their children in selecting the right courses at university level would raise awareness throughout the

country of the importance of studying the most appropriate subject for the development of human capital in Libya. Within such a campaign, universities could adopt their individual marketing strategies, which would incorporate recruitment procedures appropriate to the particular courses they have on offer.

- Libya has undergone a major revolution in 2011 with the result that now the country is facing critical reconstruction and development challenges that call for new ways of thinking about the provision of Higher Education, marketing and training priorities. Hence, there will be need for a systematic approach to the development of curriculum structures and to the students' approach to decision-making processes. As part of this systematic approach, the research findings indicate that the principles and philosophy underlying the construction of new universities, and the manner in which they recruit students to individual disciplines, be thoroughly evaluated, in order to ensure a complete and effectively functioning guidance service for students. The Ministry of Education should also reconstruct the relation between secondary education and its preparation for entrance to universities

Contributions of the thesis

The significance of this study and the issues it highlights come from the fact that it was conducted at a critical point when the Libyan education system was witnessing changes, albeit small, that saw the re-introduction of the teaching of English in Libyan education institutions. This was recognition of the re-admission of Libya into the international community, and the need to develop human capital with an enhanced skill set. This fairly recent development in the development of Libya's

educational system marks an important turning point in educational provision since it opens up new opportunities and therefore, throws another variable into the subject choice process. Consequently, this thesis makes a contribution to the literature concerned with educational change, and in particular that body of knowledge relating to educational change and development within the Libyan contexts.

However, in the aftermath of the recent Libyan revolution that ousted the Gaddafi regime, a further and very important contribution relates to the provision of such knowledge and understanding of the importance of the subject choice process to the Libyan society with the hope that contrary to past practice positive changes will take place. Thus, it is hoped that there will be widespread shifts in the traditional attitudes of the Libyan society, and these may call for, and bring about, a complete overhaul of the curricula and of the total educational infrastructure. In exploring this, this thesis makes a valuable contribution by providing intelligence regarding the student decision-making processes, and identifying where changes might be required in that procedure to ensure that graduate output anticipates labour market demand.

This is a challenge for most developing countries because, as witnessed by the research, parents and society in such environments generally have deeply entrenched ideas about what subjects are valuable in terms of ensuring the upward social mobility of individuals and, by implication their families. The result is a parental influence upon student choice of subject that results ultimately in graduate unemployment as the supply of graduates in certain disciplines exceeds market demand. Local graduates do not meet the demand in some areas hence, leaving the employers to rely on expatriates. This thesis makes a theoretical contribution to that

body of literature which is concerned with the localisation of manpower (specifically, Libyanisation) since it identifies trigger points in the process of developing human capital and makes suggestions regarding their effective management.

Associated with this contribution is the guidance it offers to Libya in its reconstruction stage. The development and expansion of private sector investments may widen access to universities and encourage competition. It is important in such a scenario, that universities launch programmes that are appropriate to underpin the provision of the country's required human capital, and that they adopt suitable measures for properly informing and recruiting undergraduates. This thesis will assist in that effort.

A further contribution is the confirmation that the subject choice process in Libya differs from that in the Western countries since the implications of the eventual choice of degree are more far-reaching in their ability to touch students' parents, wider families, and indeed local communities. The study has demonstrated that subject choice decisions are taken much more seriously by Libyan students than by the students considered in the Western based studies examined in the literature review. This is because the former have inflexible curriculum provisions, limited subject choices, and a much smaller pool of universities from which to choose. Given this understanding, it is, nevertheless, legitimate to suggest that certain of the findings from this study may be generalised to other developing countries with similar cultural and religious practices, such as those elsewhere in the Arab world.

Limitations of the Study

- The study was conducted in two coastal city universities and two rural universities in order to obtain a spectrum of information. Although I cannot claim that the finding of this study can be generalised for all Libyan university however, it provided indications of the trends involved in such process. Similarly, the empirical work confined itself to four disciplines, and it may not be possible to generalise across the full range of subjects on offer in universities.
- Limitations were also evident in sourcing and accessing information specifically because of poor data keeping and the bureaucracy involved. Additionally, data for different disciplines was not centralised, and their quality therefore varied. Similarly, there were variations in the quality of the admissions data relating to each of the subjects chosen for study.
- Time: The study was conducted over a short period of eight weeks so the time was not enough to hold a wide base of interviews.
- Cost: Because of the geographical nature of the country, the universities are spread across a wide area so it was costly to make more trips the institutions than was necessary.
- I was not able to clarify some of the responses, particularly those concerning family influence, which meant that they are not as properly weighted as they should to enable me to make clear interpretations.

Suggestions for Further Research

The limitations of the study naturally point the way for further research, so on the basis of the previous section, it can be understood that investigations that extend this study to include more universities, more academic disciplines, and more in-depth

qualitative explorations would be useful in helping to consolidate the picture presented by this study.

Additionally, however, research into the choice process at the earlier stages of education would be valuable since the current system requires pupils to choose their initial pathway (arts or science) at the Preliminary Stage, which is extremely early in comparison with other education systems around the world. This effectively closes doors for pupils and further work is required in this connection to establish factors influencing students at in this stage, and indeed to establish why such an early choice is necessary.

Another useful investigation would be one that traces students' university careers to establish patterns of subject change after the first year of study and the reasons for this, together with the overall impacts of such a switch on the final qualification and career outcomes.

Finally, research into the type of information and guidance required by students at various stages of the educational process would be valuable to enable their decision-making to be based on objective rather than subjective knowledge of course content and labour market demands although the latter cannot be predicted. As part of such a study, attention could be paid to models of attitude change such that the information and guidance made available to students would also be acceptable to their parents and families whose ideas may be entrenched and require change. Family attitudes should be taken into account in any research.

Research on attitudes to student choice of subject in the post-Gaddafi setting

The study has raised important questions.

- The initial students' choice starts at the Preliminary Stage before the Secondary Stage, where students choose their initial pathway whether it is science or literate subjects. Further work needs to be done in this area to establish factors influencing students at in this stage to choose either sciences or humanities. For, you are forced to follow a pathway before you identify your subjects at secondary school level.
- There is sub-choice at the university if one is doing Medicine or Engineering, however, there is no guidance to students on how to select the sub-choices.
- **Information and guidance** - there is lack of information regarding the choice of subjects therefore further work should be done in order for students to get a clear view of the available subjects so that they can make the correct decisions.

Final comment

This thesis has explored an issue of genuine importance to Libya in its current state of great social-political changes and national development. In considering the students' subject choice process the thesis has demonstrated influence that is important in order to ensure an appropriate match between graduate supply and employer demand for workforce. Now with the new horizon that the revolution has opened up for Libya, the opportunities to re-structure certain aspects of HE provision should be available, and if the policy implications identified are taken up are , a

match between graduate supply and demand should be achievable and Libya's development of human capital assured for the future of the country.

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Appendix

Vocational Educational Disciplines.

1) Mechanical Vocations, including ten specialisations:

a- General Mechanics

b- Welding & Steel Iron Works

c- Elevator Technology

d- Foundry

e- Car Mechanics

F-Agricultural Machine Mechanics

g- Carpentry & Furniture Upholstery

h- Heavy Vehicle Mechanics

I- Manufacturing Tools and Equipment

J- Air Conditioning Maintenance

2) Electrical Vocations, including ten specialisations:

a- Computer Technologies

b- Industrial Electrical Extensions

c- Transformation & Distribution of Electric Power

d- Computer Software

e- Operation Control & Measuring Devices

f- House Electrical Extensions

g- Television & Radio Devices

h- Telephone & Telecommunication Devices

i- Electrical Tools Maintenance

3) Engineering Vocations, including seven specialisations:

a- Building, Bricks and Concrete

b- Paving & Tile-laying

c- Carpentry

d- Painting & Decoration

e- Plumbing & Sanitation

f- Architectural Design

g- Land Survey

4) Hostel Vocations, including four specialisations:

a- Hotel Management

b- Food Production

c- Frontal Circles

d- Serving Arts

5) Fishery Vocations, including two specialisations:

a- Fishing

b- Boat Building

Participant Information form

Information for prospective participants

My name is Ali Ali Bait-Almal and I am a PhD research student working for the degree of Doctor of philosophy at the School of Education, University of Nottingham (U.K) under the supervision of professor W.J.Morgan. I am conducting a research to identify the main factors that affecting the choice of subject in Libyan university. The main question is what are the main factors influences on the choice process of field of study for the first year student?In order to collect the data needed for my study to answer my research questions I am going to distribute a questionnaire as well as conducting individuals and focus group interviews.

I am willing to provide further information about myself and the research study.

Please feel free to contact me at alibaitalmal@yahoo.com or my supervisor, professor W. J. Morgan at jhon.morgan@nottingham.ac.uk or Professor John Holford , the research Ethics co-ordinator, School of Education, University of Nottingham at jhon.holford@nottingham.ac.uk

Yours sincerely

Ali Bait-Almal

Contact address in the UK

Ali Bait-Almal

PhD student, School of Education, University of Nottingham.

Alfreton Road NG7 5NE

Contact address in Libya

Lecturer, sociology department, Aljabal Algharbi University, Libya.

Participant Consent form

Dear participant:

My name is Ali Ali Bait-Almal and I am a PhD research student working for the degree of Doctor of philosophy at the School of Education, University of Nottingham (U.K) under the supervision of professor W.J.Morgan. I am conducting a research which investigates the factors that affecting student choice of field of study at Libyan Universities.

Although there is no direct benefit to you, the results of the study may assist in developing the transition process from secondary education level to university level in terms of helping student who enrol in university, to choose an appropriate subject at higher education level.

I would be very grateful if you kindly help me by answering this questionnaire which will take about 25 – 25 minutes to complete. The content of the questionnaire will be treated confidentially and any information would identify you will not be disclosed at all .

Finally, if you have any questions about this research study or your potential participation in this study, please contact me at alibaitalmal@yahoo.com

yours sincerely

Ali Bait-Almal

contact address in the UK

Ali Bit-Almal

PhD student, School of Education, University of Nottingham.

Alfreton Road NG7 5NE

Contact address in Libya

Lecturer, sociology department, Algabal Algharbi University.

I do consent to participate in this study. I understand that the interview will be audio tabbed. I grant permission to be quoted directly in the final research report.

Signature----- Date. -----

Personal Information

Name ----- Age----- Phone. -----

E-mail address-----

Address-----

Studying now in department ----- University -----

Statement of Research Ethics

SCHOOL OF EDUCATION – STATEMENT OF RESEARCH ETHICS



Name (Student): Ali Ali Bait-Almal Supervisors: Prof. W .J. Morgan and Dr. C .Atkin

Course of Study: PhD

Title of Research Project: What should I study? Factors affecting student choice of subject at Libyan Universities.

	Tick where appropriate
1. I have read and discussed with my supervisor(s) the British Educational Research Association's <i>Revised Ethical Guidelines for Educational Research</i> (BERA, 2004).	✓
2. I have read and discussed with my supervisor(s) the <i>Research Code of Conduct</i> of the University of Nottingham: http://www.nottingham.ac.uk/rso/policy/code_of_conduct.doc .	✓
3. I am aware of and have discussed with my supervisor(s) the relevant sections of the <i>Data Protection Act</i> (1998): http://www.hmsa.gov.uk/acts/acts1998/19980029.htm .	✓
4. Data gathering activities involving schools and other organizations will be carried out only with the agreement of the head of school/organization, or an authorized representative, and after adequate notice has been given.	✓
5. The purpose and procedures of the research, and the potential benefits and costs of participating (e.g. the amount of their time involved), will be fully explained to prospective research participants at the outset (see BERA, 2004, paras 10, 11, 12, 21).	✓
6. My full identity will be revealed to potential participants.	✓
7. Prospective participants will be informed that data collected will be treated in the strictest confidence and will only be reported in anonymised form, but that I will be forced to consider disclosure of certain information where there are strong grounds for believing that not doing so will result in harm to research participants or others, or (the continuation of) illegal activity (see BERA, 2004, paras 27-28).	✓
8. All potential participants will be asked to give their explicit, normally written consent to participating in the research, and, where consent is given, separate copies of this will be retained by both researcher and participant.	✓
9. In addition to the consent of the individuals concerned, the signed consent of a parent, guardian or 'responsible other' will be required to sanction the participation of minors (i.e. persons under 16 years of age) or those whose 'intellectual capability or other vulnerable circumstance may limit the extent to which they can be expected to understand or agree voluntarily to undertake their role' (BERA, 2004, para 14-16).	✓
10. Undue pressure will not be placed on individuals or institutions to participate in research activities.	✓
11. The treatment of potential research participants will in no way be prejudiced if they choose not to participate in the project.	✓
12.	✓
13. I will provide participants with my contact details (and those of my supervisor), in order that they are able to make contact in relation to any aspect of the research, should they wish to do so.	✓
14. Participants will be made aware that they may freely withdraw from the project at any time without risk or prejudice (see BERA, 2004, para 13).	✓
15. Research will be carried out with regard for mutually convenient times and negotiated in a way that seeks to minimise disruption to schedules and burdens on participants (see BERA, 2004, para 19).	✓
16. At all times during the conduct of the research I will behave in an appropriate, professional manner and take steps to ensure that neither myself nor research participants are placed at risk.	✓
17. The dignity and interests of research participants will be respected at all times, and steps will be taken to ensure that no harm will result from participating in the research (see BERA, 2004, para 18).	✓
17. The views of all participants in the research will be respected.	✓
18. Special efforts will be made to be sensitive to differences relating to age, culture, disability, race, sex, religion and sexual orientation, amongst research participants, when planning, conducting and reporting on the research.	✓
19. Data generated by the research (e.g. transcripts of research interviews) will be kept in a safe and secure location and will be used purely for the purposes of the research project (including dissemination of findings). No-one other than research colleagues, supervisors or examiners will have access to any of the data collected.	✓
20. Research participants will have the right of access to any data kept on them (see BERA, 2004, para 24).	✓
21. All necessary steps will be taken to protect the privacy and ensure the anonymity and non-traceability of participants - e.g. by the use of pseudonyms, for both individual and institutional participants, in any written reports of the research and other forms of dissemination.	✓
22. Where possible, research participants will be provided with a summary of research findings and an opportunity for debriefing after taking part in the research (BERA, 2004, para 29).	✓
23. I have received Advanced Criminal Records Bureau (CRB) disclosure.	

Please provide further information below in relation to any of the above statements which you have not been able to tick, explaining in each case why the suggested course of action is not appropriate (continue on a separate sheet if necessary):

As I am dealing with Libyan Arabic Libyan students, I have an Arabic version of (CRB disclosure) from Libya.

PLEASE RETURN THIS FORM WITH SUPPORTING DOCUMENTATION TO THE POSTGRADUATE RESEARCH DEGREES OFFICE (A77)

APPENDIX

Please outline any areas of risk, which have not been referred to above, associated with your research, and how you intend to deal with these (continue on a separate sheet if necessary):

There is no expected risk around this topic, as I am dealing with young mature students who are not considered vulnerable. Every thing will be clear to them in advance and participants can withdraw form the process at any point. The participant information and consent forms will be distributed in Arabic and discussed to ensure there meaning is understood.

Checklist:

Please check that you have attached the following and return with the form to the Postgraduate Research Students Office

- (1) A brief statement of my research aims or questions and proposed methods of data generation (maximum 200 words).
- (2) A brief statement of how I plan to gain access to prospective research participants.
- (3) A draft information sheet to be provided to prospective participants;
- (4) A draft consent form to be used with prospective participants.

NB Please does NOT include copies of research instruments (e.g. questionnaires).

Signed (student) _Ali Ali Bait-Almal _____ Print Name (Student) Ali Ali Bait-Almal Date. 28-2-2009

Signed (supervisor (1) _____ Print Name (supervisor (1) Prof. W. J. Morgan. Date. _____

PLEASE RETURN THIS FORM WITH SUPPORTING DOCUMENTATION TO THE POSTGRADUATE RESEARCH DEGREES OFFICE (A77)

Letter to Libyan Embassy

To whom it may concern

Re: Ali Ali Bait-Almal registered full-time PhD student in school of Education at University of Nottingham. Mr. Bait-Almal needs to travel from Nottingham, U.K .to Libya from (30-4-2009 to 30-6-2009), in order to visit some certain Universities in Libya where he intends to conduct his research with first year University students in those Universities. This travel is an essential part of his study.

It would be very helpful if he could receive all support he needs to complete this field study. Your help in facilitating this will be much appreciated. For any further details please contact me at jhon.morgan@nottingham.ac.uk

Yours faithfully

Professor W. J. Morgan, FRAI., FRSA.,
UNESCO Chair of the Political Economy of Education,
Director, Centre for Comparative Education Research,
School of Education, University of Nottingham, Nottingham, NG8 1BB.
Tel: +44 (115)9513717

Supporting Letter for Data Collection

(Translated)

The Great Socialist Peoples' Libyan Arab Jamahiriya

Libyan Embassy- London

Cultural Affairs

Date: 30-4-2009 to 30-6-2009

To

The Head of Sebha University / Gharyounis University / The seventh of October University/ University of Aljabal Al-gharbi.

After greeting

The Libyan cultural Bureau in London certifies that the student: Ali Ali Bait-Almal is on a PhD scholarship majoring in sociology of education in the United Kingdom. This student wishes to conduct a field study in the above mentioned universities, to collect some data relevant to his study. We would be very grateful if you kindly offer your assistance to the student to fulfil his data collection programme.

We highly appreciate your cooperation with us

Approved and signed by

Saad Manaa

Cultural Counsellor

The Libyan People's Bureau-London

[Http://libyanembassy.org.uk/](http://libyanembassy.org.uk/)

61-62 Ennis more Gardens, London SW7 1NH Tel: 020 7581 1442 Fax: 020 7581 2393

Interview Questions:

- **What are the general distribution of students in terms of gender and their field of study?**
 - This will be answered from documents
- **How did you reach your decision about your field of study?**
 - Who has had significant influence on your choice of field of study?
 - When have you started thinking about this choice?
 - Do you think it is the right choice? Why?
 - What did consider when you chose this area?
 - Who was the most involved in your choice process (parent, friend, relative, teacher neighbours, or other?)
- **What career plan do you have after graduation?**
 - Have you thought about job opportunity before choosing this subject?
 - Do you think that you will get a job matching your qualification?
 - Does make any different whether your job related to your qualification?
- **What are the main sources assisting students to choose their field of study?**
 - Did you have any idea about this subject before you enrolled?
 - Did you have any information that guided you to choose this subject?
 - Where did you get such information?

- **To what extent and why does gender influence the choice of field of study?**
 - Have you been encouraged or discouraged to choose a specific field because of your gender?
 - Does your gender constrain your choice? If so, how?
 - Do you think that some subjects are not suitable for females? If so, which ones and why?

Questionnaire

1- Gender male female

2- Age 16 17 18 19 or over

3- How many brother(s) and /sister(s) have you got?

1 2 3 4 5 more than 6

Sister

Brother

4- What is your specialization?

5- Was this choice is the first choice?

Yes No If no, please go to Q6.

6- Approximately, how far is the university from your house?

1-2 km 3-4 5-6 7-8 more than 9

7- Have you changed your choice?

Yes if yes please go to Q 8 No

8- Why have you changed your choice?

9- What is your parent qualification?

Illiterate primary level secondary level university level

MA PhD Other

10- Have you thought about any other academic programme apart from university?

Yes If yes, please go to Q11. No

11- What was/were those programmes?

12-Why did you choose to go to university?

- It will help me to get a job.
- It is my parent choice.
- I am looking for certificate only
- It will help me to broaden my knowledge
- Because my friend enrolled in
- Honestly I do not know
- It is socially appreciated
- I have not another choice
- The prestige of the field

10- Why did you choose this particular subject?

- I am interested in this subject
- Because of my grade and ability, this is the only option
- My family chose to me
- My friend(s) has/have chosen the same
- It is the subject I am best at
- Easy to get a job with this subject
- The image of this subject in society
- I do not know why I chose it
- I expect good income with this specialization

