A STUDY OF PROGRAMMES FOR GIFTED STUDENTS IN THE KINGDOM OF SAUDI ARABIA

A thesis submitted for the degree of Doctor of Philosophy

in Education

by

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ABSTRACT

The study reported in this thesis explores the nature of provision for gifted and talented students in the Kingdom of Saudi Arabia, which is considered to be an under-developed country. The specific aims of the study are to explore the effectiveness and any possible weaknesses of gifted programmes in Saudi Arabia, from the perspectives of all parties involved, to draw conclusions about the Saudi programmes and to make recommendations.

The study used mixed methods for collecting information. The researcher obtained data with the aid of questionnaires, interviews and documentation. Non-random samples were chosen from the population of gifted students studying in schools under the authority of the Ministry of Education. They were given questionnaires that explored their demographics, social life, academic achievements and self -reflection regarding their giftedness. Professionals dealing with gifted students also responded to a questionnaire which explored their respective institutions' strategies in dealing with the gifted students. They were also interviewed regarding their views on the Ministry of Education's systems and strategies with regard to gifted education.

The conclusions and recommendations arising from the study can be viewed under four parts comprising identification, provision, policy and information. The predominant method of identification has been that of intelligence tests and other tests associated with overall academic performance. The membership of the gifted cohorts seems to encourage students from well-educated and affluent families. The educational provision for gifted students seems to be patchy; both strategy and curriculum modification have been found to be somewhat inadequate. The organisation of the gifted strand of policy seem well intentioned, but unevenly targeted at different geographical areas and the role of Care Centres – each being assigned a specified list of schools - could become dynamic with substantial educational improvements resulting in schools being served. It was also found that the flow of information - such as documents emanating from the Ministry - needs to be clear, consistent, illuminating and carefully read by recipients.

Due to the special features of the social and cultural environment of Saudi Arabia, an assessment of the impact of the gifted education initiative there has the potential to make an important contribution to other countries considering similar initiatives – especially in many other Arab countries where there are no gifted education policies in existence. The study also makes an international contribution to the history of gifted education and its development.

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"And whatever of comfort ye enjoy, it is from Allah. Then, when misfortune reacheth you, unto Him ye cry for help" Quran [16:53]

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ABBREVIATIONS

CAT: Cognitive Abilities Test
CATS: Cognitive Abilities Test System
CD: A Compact Disc
DCSF: Department for Children, Schools and Families
DET: The Department of Education and Training
DfEE Department for Education and Employment
DfES: Department for Education and Skills
Fiqh: Islamic jurisprudence
FIRO-B: Fundamental Interpersonal Relations Orientation Behaviour
FPS: Future Problem Solving Model
GAGS: General Administration for Gifted Students
Hadith: The Islamic Holy text attributed to the Prophet Muhammad
HMSO: Her Majesty's Stationary Office
IORESA: Information Office of the Royal Embassy of Saudi Arabia
IQ: Intelligence Quotient Scores
KACFG: King Abdul Aziz and his Companions' Foundation for Giftedness and Creativity

KAUST: King Abdullah University of Science and Technology

Mawhiba: King Abdul Aziz and his Companions' Foundation for Giftedness and Creativity Website

MI: Multiple Intelligences

MOE: Ministry of Education in Saudi Arabia

MOFA: The Royal Embassy of Saudi Arabia Website

NFER: National Foundation for Educational Research

OPEC: Organization of the Petroleum Exporting Countries

QCA: Qualifications and Curriculum Authority

Quran: The Islamic Holy Book believed to be the word of God

SATs: Standard Assessment Tests

SPSS: Statistical Package for Social Sciences

Tafsir: Explanation of the Quran

Tawheed: Islamic Creed

UNESCO: United Nations Educational, Scientific and Cultural Organization

WAIS: Wechsler Adult Intelligence Scale

YELLIS: Year 11 Information System

CHAPTER 1

INTRODUCTION

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Introduction

1.1 Background

Making appropriate provision for gifted and talented students is important to the development of any functioning society. They are part of the future and a valuable future resource; that may be why developing countries are making significant efforts in making appropriate provision for them. In the Kingdom of Saudi Arabia, which is considered to be an under-developed country, interest in gifted students began to grow from 1998, through programmes that were geared towards identifying gifted students. In 2000, the General Administration for Gifted Students (GAGS) was established in Saudi Arabia's Ministry of Education (Bondagjy, 2000). Although attempts are being made to introduce gifted education in Saudi Arabia, there is a paucity of published information both in terms of research and development.

A conservative estimate of the percentage of gifted pupils in the Kingdom of Saudi Arabia is 2% (Bondagjy, 2000). Since there are about four million pupils and students in the kingdom, the number of those who are gifted may be around 80,000. Existing specialised programmes can probably provide for only half of the actual number (King Abdul Aziz and his Companions' Foundation for the Gifted [KACFG] Journal, 1999). Furthermore, the numbers should rise as the identification becomes wider and this causes concern, as Bondagjy, (2000) states:

> *The programmes can only deal with approximately half of that number, which comes down to around 40,000 pupils. The number of gifted pupils is expected to increase at a rate of 5%, the same rate of increase in the population. The present foundation cannot handle the increasing numbers of gifted pupils...in the kingdom (p10).*

Currently the total number of students in Saudi Arabia is , , and there are , schools (Web of Ministry of Education in Saudi Arabia, 2007). The number of gifted students in these schools would appear to be more than 200,000, if 5% of the student population is identified. The number of gifted students who receive the benefit of any specialist programmes in Saudi schools is much less than this number. In consequence, it is felt by many practitioners, with who I have been informally in contact with, that these

schools may need more specialist programmes and more services and facilities to address the needs of gifted students.

1.2 Personal motivation for the study

I, the author of this study, come from Saudi Arabia. My qualifications and previous work experience include social work. I have worked with juvenile delinquents at Al-Owad prison before becoming a lecturer at the Imam University, where I lecture in Social Work. I also lecture on Islamic Law outside the University and in 2001 organised, and ran a (now on-going) summer school for gifted students, at which they memorised the Qur'an in just two months. In addition, I have been involved in producing a youth magazine and writing educational articles. All these experiences contributed to my interest in carrying out a study involving nurturing the gifts and talents of young people. I have been sponsored by the Saudi Embassy Culture Bureau to study for my PhD. My intention is to use the knowledge derived from undertaking this study to contribute to the development of gifted education, when I get back to Saudi Arabia.

In this study my focus is the existing programmes for gifted students in the Kingdom of Saudi Arabia, in order to determine any difficulties and issues facing existing gifted programmes. I hope to learn about gifted programmes provided by the Department for Children, Schools and Families (DCSF) in the United Kingdom and in other countries through my readings. In particular, I would like to explore the development of gifted education in the United States of America, where most of the developments in gifted education have taken place in the past three decades (Carber & Reis, 2004). I hope these will enable me to identify any problems and salient issues in the provision for the gifted in my own country and make recommendations to support the government of Saudi Arabia to improve the nature of the provision offered for gifted students. My study should also provide a synthesis and a critical review of existing provision for gifted students around the world, which I hope will provide a reference base for those working in gifted education within Saudi Arabia.

The terminology used in Saudi Arabia - gifted education – is used through out in this study although I am aware that in many countries, including the United Kingdom, the phrase *gifted and talented* education is often used. In the UK, for example, the term *gifted* is used to describe academically bright pupils and the term *talented* refers to high abilities in sport, music and creative arts (DfES, 2006) I hope to gather information by reviewing international literature, academic books and policy documents as well as by gathering information from different websites on the internet and reading international journals. The

data to be collected for this study will focus on programmes for gifted students in Saudi Arabia. Within Saudi Arabia, I intend to distribute questionnaires and carry out semi-structured interviews of employees at government agencies, the Education Ministry, people in management positions, tutors, social workers and the gifted students themselves, in order to assess how various people perceive 'gifted' programmes and to explore how effective or successful the programmes are. My intention is to explore gifted education from a variety of viewpoints and perspectives. The task I am undertaking is complex as there is very little research being carried out on giftedness in the Kingdom of Saudi Arabia. I also hope to contribute to the research findings acquired to date, in order to enrich the information available in the field and make a contribution in the further development of gifted education in my country.

1.3 Research Problem

Evidence suggests (Al-Ghamdi, 2007) that there are very few programmes for gifted students run by the Ministry of Education in the Kingdom of Saudi Arabia. The programmes that do exist are new and in need of evaluation and further development in order to provide maximum benefit for gifted students. The Saudi Arabian government is keen that the gifts and talents of the young people in the country are nurtured (Mawhiba, internet reference, 2007). The authorities in the government believe that if there are sufficient schools making commitments for enhanced opportunities for gifted students, the result could be the identification of more gifted students, additional benefits for gifted children and a successful future for the country (Hassanan, 1997).

At present, in Saudi Arabia, gifted students who have special characteristics of giftedness or special abilities qualify for provision at the highest levels of services. But practitioners, with who I have informally communicated, feel that there is a need for more well-developed and organised special programmes that cater for and develop these students' abilities.

Since 1999, the Ministry of Education in the Kingdom of Saudi Arabia has demonstrated a strong interest in its gifted students by putting in place programmes that are developed specifically for these students; however, these programmes are rare and new. Therefore I feel it is necessary to carry out an in-depth study of the present state of gifted education, find out what is available and identify the strengths and weaknesses of what is being offered.

1.4 Aims of the study

From the outset, it is acknowledged that the concept of giftedness and its identification is highly complex. As Gubbins (2002) points out, people all over the world are still asking questions about how we assess and nurture people's abilities. Whilst there are centres around the world focusing on research and development on gifted education, there are also experts (Borland, 2005, for example) who question the whole concept of identification of *'gifted students' and recommend that what is needed is 'gifted education' for the students without labelling a group as 'gifted'. Borland, however, also states that there is agreement amongst experts that 'high achieving or high-ability students are among those who are the most ill-served when curriculum and instruction are not differentiated'* (p.2). This study aims to make a contribution to the on-going debate in aspects of gifted education. It is also hope that it would add to the research literature by studying the nature of gifted education in Saudi Arabia, which has a different cultural social and educational background to many other countries where gifted programmes exist.

More specifically, the aims of this study are:

- to explore the effectiveness and any possible weaknesses of gifted programmes in Saudi Arabia, by seeking the perspectives of all key parties involved;
- to draw conclusions about the nature of gifted Saudi programmes and make recommendations based on the data collected;
- to make recommendations to the Saudi government based on what is known about gifted programmes in other countries.

1.5 The research questions

Based on the aims articulated in the previous section, the following specific research questions have been formulated:

1. How does the Ministry of Education in Saudi Arabia define gifted students?
2. How does the Ministry identify and support gifted students?
3. What is the nature of programmes for gifted students in the Kingdom of Saudi Arabia?
4. How effective are these programmes in terms of making provision in terms of the educational methods and resources for gifted students from the perspectives of practitioners and policy makers?

1.5.1 Sub-questions

Two sub-questions will also be explored:

- Do people who work with gifted students have special qualifications?
- What is the level and nature of the response of gifted students to 'gifted' programmes?

1.6 History of the Kingdom of Saudi Arabia

In order to set the background for this study, it is important to provide some information about the history of the Kingdom of Saudi Arabia. The extensive background information is provided as Saudi Arabia has a very different social and cultural context and many aspects relating to the specific contextual factors are likely to impact on researching this study. The Saudi state was established first in central Arabia about 1744, corresponding to 1157. At that time a local governor, a noble Arab of the region, Prince Muhammad bin Saud, joined, with his fighters, the Islamic reformer, Sheikh Muhammad Ben Abd Al-Wahhab. The two leaders reached an agreement to establish a Moslem state which was based on purifying genuine Islam from man-made deviations and heresies (Alsheridah, 1998). The capital of the state was Al Dara'iah. The newly emerged entity at that time largely expanded to include Najd, and its influence covered the coastal eastern territories from Kuwait in the north to Oman in the south (Madini, 2005).

In 1902, Abdul Aziz bin Saud, at 22 years of age, captured Riyadh and became King bin Saud, re-establishing the royal family heritage (Alsheridah, 1998). Today the country continues to be ruled by the Saudi monarchy, the present King being Abdullah bin Abdul Aziz. The prevailing law is the Islamic Shari'a (Madini, 2005). The country covers most of the Arabian Peninsula, with Riyadh, its capital, being the largest city of the kingdom. It has boundaries with the United Arab Emirates, Oman, Yemen, Iraq and Jordan (Madini, 2005). The area of the country is very large, approximately 2,217,949 square kilometres. In 2007, Saudi Arabia's population was estimated to be about 27,019,731 million, including about 6.4 million resident foreigners. Most Saudis are ethnically Arabs and 100% of them are Muslims (Aljoufedu, internet reference, 2007).

The discovery of oil, in March 1938, brought a dramatic change in all sectors of the country, particularly on an economical level. As a result, the country gained considerable international influence over the years, in addition to its Islamic pioneer position - as including the holiest places of Islam, and applying Islamic judgment on the life and transactions of its citizens. Today, Saudi Arabia enjoys a close relationship with most of

the Western nations which purchase Saudi oil (Madini, 2005). In the context of oil, it has been found that Saudi Arabia has the largest of the world's petroleum reserves. As the largest exporter of petroleum, it plays a leading role in Organization of the Petroleum Exporting Countries [OPEC] (Mofa, internet reference, 2007).

The population of the Kingdom is increasing dramatically and most people are under 25 years old. There are more than 11,000 small cities, villages and hamlets with more than 30,000 schools. The gross domestic product is more than £30,666 billion in 2004 (Alsabti, 2007). The government therefore can afford to spend generously on education. Indeed, in 2004, the amount spent on education was £8486 billion. Clearly, funds are available to spend on education.

In recent years, as the Ministry of Education (MOE, internet reference, 2007) shows the Saudi government has acknowledged the importance of enhancing the provision for the most talented students so that the country will be able to keep up with global developments and competitiveness.

Table 1.1 General Government & Education Budget 2004 (£billion) (MOE, internet reference, 2007)

General Government Budget	Education Sector Budget.	% of General Budget spent on education.	M.O.F. Education Budget.	% of Education Budget.
30.666	8.486	27.67%	6.666	79.47%

1.7 Education in the kingdom of Saudi Arabia – Background to this study

This section gives a brief profile of the education system in the Kingdom of Saudi Arabia providing relevant details of the process of education with special reference to gifted student programmes.

In 1925 King Abdul Aziz bin Saud united the country and renamed it the Kingdom of Saudi Arabia.

The modern history of education in Saudi Arabia started with an Arab school established in Jeddeh by Mohammed Ali Zeynel, on the western coast of the kingdom, before another one was established in the holy city of Makkah in 1903. In 1924, the Directorate of Education was founded, in order to undertake regulating the process of education in the kingdom, along with Al Hachemiyyah schools in Jeddah and in Makkah. In 1925 the first secondary school was established, and was called the Al-Iimi Institute. In 1926 the first Education Council was created in order to regulate education within the Hijaz and to

regulate elementary education to become compulsory and free. In 1927, the first Saudi curriculum was introduced for elementary schools; it was known by the title *Teaching System for Schools*. In 1937 regulations governing private schools were implemented and, by 1951, the number of students in the kingdom's 226 schools had reached 29,887 students (Bondagjy, 2000).

The Directorate of Education played a considerable role in implementing Higher Education in the Kingdom of Saudi Arabia by establishing the Shariah College in Makkah in 1949, followed by a college for training teachers, established in 1952. In 1957 King Saud University was established, then the Islamic University in Medina in 1961. The Dharan University of Petroleum and Minerals was founded in 1963 (its name was changed to King Fahd University). King Abdul Aziz University in Jeddah was founded in 1967, while Imam Mohammed bin Saud and King Faisal University, amongst others, were founded in 1975.

In 195 the Ministry of Education was founded and was headed by Prince Fahd bin Abdul Aziz as the first Minister of Education of the Kingdom of Saudi Arabia. In 1960 formal education for girls commenced in the kingdom when 15 primary schools were founded, in 1963 the education system had grown to include 1,024 primary schools, 72 intermediate and secondary schools, 7 vocational schools, 7 teacher-training institutes and the first intermediate school for girls, while the Kingdom of Saudi Arabia opened the first secondary school for girls in 1965. During the same year the number of schools and institutes had jumped from 1,114 to 2,225.

The period 1975-1985 was considered by many to be a considerable positive period in the history of educational development in the Kingdom of Saudi Arabia. This leap was due primarily to the large financial investment injected by the government, to improve the educational process, as well as to raise in the number of teachers and administrative staff drafted in to serve the educational system (Madini, 2005). Today, the sector of public education of Saudi Arabia currently comprises 19 universities, more than 29,000 schools, and a large number of colleges and other educational and training institutions. It is open to every Saudi citizen, with the system of public education providing students with free tuition, books, library and laboratory facilities and health services. A measure of the government's substantial commitment to this sector can be seen in the allocation of over 25 percent of the annual State budget to education, including vocational training as Ministry of education web show (MOE, internet reference, 2007).

The Special Education Department of the Ministry of Education (MOE) operates special schools for the blind, deaf and other physically and mentally handicapped students, while other institutes care for older handicapped people. Table 1.2, below, shows, in figures, the project summary of general education figures below (MOE, internet reference, 2007).

Table 1.2 Summary Statistics for General Education

Description	Schools	Classes	Students	Teaching Staff	Administrators
Male	13,939	105,122	2,379,496	188,906	7,286
Female	15,868	105,172	2,403,680	213,269	15,045
Total	29,807	210,294	4,783,176	402,176	22,331

The Kingdom of Saudi Arabia has established a goal to 'spread Islam to every corner of the earth'. It requires the school systems to incorporate this goal in their curricula. Textbooks and lesson guides contain philosophies taken from the Holy Qur'an. The keystone of instruction in Saudi Arabia is composed of the generally all-encompassing subject matters in Islam. A book, entitled *Education in Saudi Arabia*, distributed by the Saudi Cultural Mission to the US, refers to a manuscript published by the Higher Committee for Educational Policy (Al Saloom, in Stalinsky, 2008). It holds 236 main beliefs that give explanation to how students have to endorse faithfulness to Islam by disparaging any arrangement or hypothesis that holds disagreement with Islamic law. The following passage from the manuscript by the Higher Committee for Educational Policy indicates (Al Zaid, 1982, in Stalinsky, 2008):

> *The purpose of education is to understand Islam in a proper and complete manner, to implement and spread the Muslim faith, to provide a student with Islamic values, and teachings. [The Importance of which is] providing the individual with the necessary ideas, consciousness and abilities to preach the message of Islam, [along with the idea of] widening the horizons of the thinking of the students by acquainting them with various countries of the world… and in attending to the duty of spreading its [Islam's] message... [To be able to effectively spread Islam to the world, the students are educated to] at least one of the living languages in addition to their original language to enable them to acquire knowledge…[to] transmit our Saudi knowledge…to other communities and participate in the spreading of Islam.*

1.7.1 Education for Girls

The government of Saudi Arabia has always acknowledged the significance of providing educational opportunity to girls as well as boys (Ministry of Education, 2006). Education in Saudi Arabia is divided according to gender and, separated into three independently administered structures: general education for boys, education for girls and traditional Islamic education, defined especially for boys (Sedgwick, 2008). Advancing the notion of equal educational opportunities for both genders has created challenges for the government. Presiding over the boys' general education is the Ministry of Education and the jurisdiction for girls' education is held by the General Presidency for Girls' Education. However, both sexes follow the same curriculum and examinations (Sedgwick, 2008).

The education of Saudi girls was expanded gradually. One could observe that, through the accomplishments of the General Presidency for Girls Education, the number of schools, colleges and institutions for girls' education in Saudi has increased rapidly. The figure and table below (Table 1.3 and Figure 1.1) illustrate the difference between the numbers of students, male and female, between 1970 and 2000 (Ministry of Education, 2006).

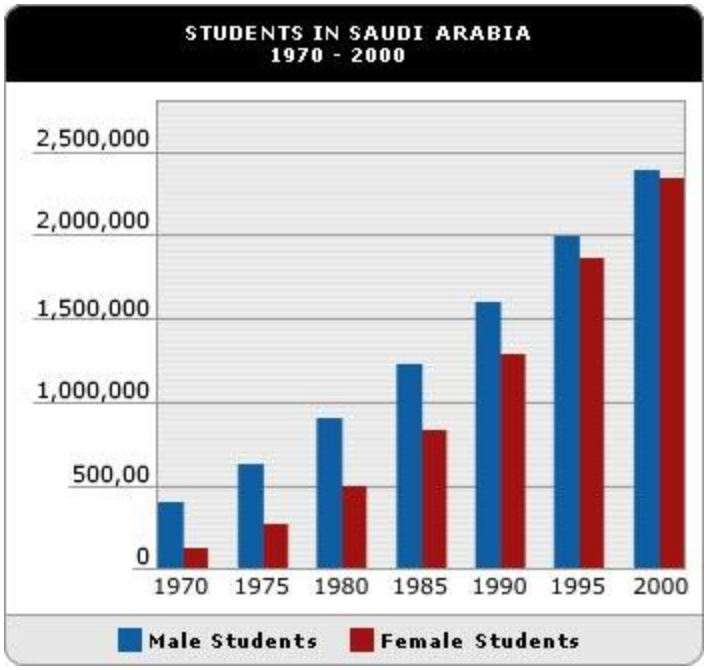
Table 1.3 Description of Male and Female Students

In Saudi Arabia in 1970-2000

Year	Male	Female	Total
1970	412,000	135,000	547,000
1975	673,000	311,000	984,000
1980	951,000	511,000	1,462,000
1985	1,273,000	876,000	2,149,000
1990	1,624,000	1,310,000	2,934,000
1995	2,022,000	1,912,000	3,934,000
2000	2,405,000	2,369,000	4,774,000

Source: http://www.kingfahdbinabdulaziz.com/

Figure 1.1 A Graphical Representation of Students in Saudi Arabia 1970 - 2000 (http://www.kingfahdbinabdulaziz.com)



1.7.2 Higher Education

The need to provide education to a larger number of Saudi Arabians has been the greatest challenge yet to be faced by the Kingdom. The end goal is to produce students capable of managing an intricate contemporary economy and for the country to be able to compete in the global system. It is also important for the economy of the country to make plans in advance, as oil supply is not infinite. A university council is accountable for instruction and school-related organizational and economic dealings, execution of university courses of action, and preparing financial arrangements and potential expansion strategies. There is a scientific committee at every university that encourages technical and research studies and periodicals.

1.7.3 History of 'Care Programmes' for gifted students in the Kingdom of Saudi Arabia

In 1969 the Saudi cabinet first recognized the need for identifying gifted students (Al-Nafea *et al*, 1992), but no actual steps had been taken for action. Between the years 1990 and 1996, King Abdul Aziz's City of Science and Technology, with collaboration from the Ministry of Education and the General Presidency for Girls Education, produced a project for extensive national research. The project entitled: 'Identification and Care for Gifted Students' (Bondagjy, 2000) consisted of three main aims:

1. To design a programme for identification of gifted students.

2. To design enrichment programme models for mathematics and science curriculum.
3. To enlighten Saudi society about the importance of the identification of gifted pupils and provision to meet their educational needs.

Regarding identification of gifted students, the project employs seven methods, which are:

- Teachers' nomination
- High academic achievement
- High achievement in science and mathematics
- IQ tests
- Torrance test for creativity thinking

Two years later in 1998, a project entitled 'Identify and Care Programme for Gifted Students' designed for identifying gifted students in the kingdom of Saudi Arabia was implemented by the Ministry of Education (Alwasruh, 2005). This programme consisted of four units:

- Identification of gifted students.
- Care and enrichment programmes for gifted students.
- Training, planning and organization.
- Finance and administration services.

This project is of even greater significance than the first, since it was deemed that it provided a more concise manner in identifying and supporting gifted children of the Kingdom. Therefore, it represents a landmark in the history of gifted education in Saudi Arabia. It provided the Ministry of Education with the opportunity to start special programmes for gifted students.

1.7.3.1 The General Administration for Gifted Students

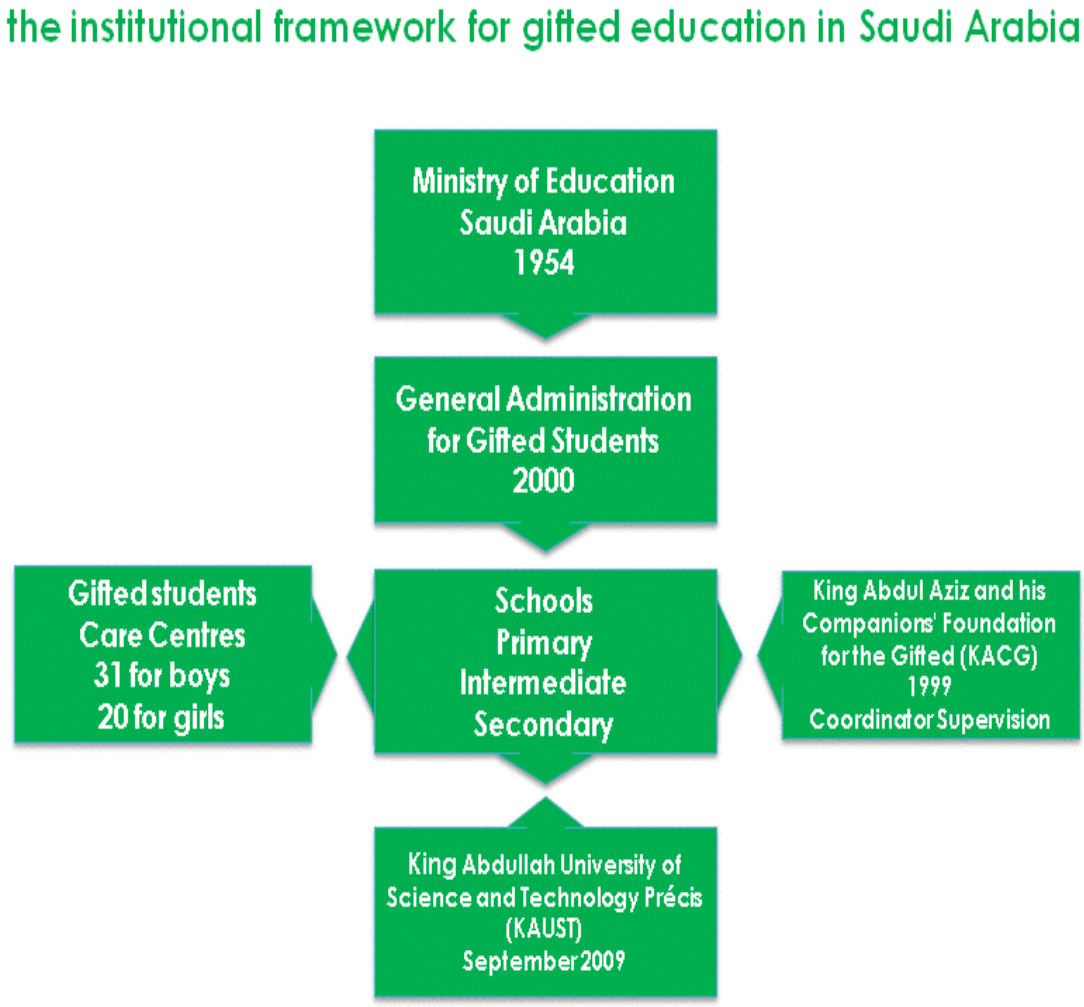
In the year 2000, an independent unit was created in the Saudi Ministry of Education to monitor and be responsible for the education of gifted students in the kingdom. This unit is referred to as 'The General Administration for Gifted Students' (MOE, internet reference, 2007).

This organization proposed three strategies for provision for gifted students:

- Acceleration allows gifted pupils to move forward to levels of study, according to his/her ability.
- Grouping - to make specific groups for gifted pupils, such as separate schools or classes.
- Enrichment - to involve gifted pupils in activities and more educational programmes according to their abilities.

The General Administration for Gifted Students applies different methods in order to implement the enrichment programmes. It suggests that schools take advantage of the post school term, weekends and summer holidays for providing these activities. For ease of reference Figure 1.2 provides a visual reference of the initiative framework for the gifted education in Saudi Arabia.

Figure 1.2: A map of the institutional framework for gifted education in Saudi Arabia.



1.7.3.2 Gifted Students Care Centres in Saudi Arabia

The gifted students Care Centres are establishments charged with the task of offering educational, social and psychological care for gifted students. Such centres are supervised by the General Administration for Gifted Students. The administration body which controls each of these centres includes a Centre Director, assistants, teachers, behavioural specialists, laboratory technicians, learning sources specialists and general support technicians. The Kingdom of Saudi Arabia, at the time of writing this thesis, has 31 Care Centres for boys and 20 for girls (MOE, internet reference, 2007).

1.7.3.3 Care Programmes for Gifted Students in the Schools of the Kingdom of Saudi Arabia

The General Administration for Gifted Students emphasises that all students should be provided with equal opportunities, so that their abilities may be identified and their gifts and talents developed. In order to achieve this goal, the General Administration for Gifted Students provides a programme to train teachers so as to achieve this purpose.

The teachers' duties include the introduction of a complete gifted programme prepared by the General Administration for Gifted Students. These programmes start at the beginning of every school term. Among the responsibilities of the teacher is the use of modern methods i.e. those which are evidence-based and researched to have concluded the most effective ways of teaching, which help to improve students' skills of leadership, social and scientific research skills. Additionally the teachers help to improve the parents' knowledge about the importance of provision for gifted students. The duties of teachers also include the liaison between the various Care Centres of Gifted Students.

The number of schools that have had benefited from this programme, between the years 2002 and 2004 was 264 boys' schools and 97 girls' schools (Alwasruh, 2005).

1.7.4 King Abdul Aziz and his Companions' Foundation for the Gifted (Mawhiba, internet reference, 2006) (KACFG) (Mawhiba)

The KACFG, which is a body specially established for improving gifted education, was established in 1999 by a royal decree from King Abdullah bin Abdul Aziz Al-Saud. This was the result of recommendations of scholars and researchers from the Ministry of Education, the Presidency of Girls' Education, King Abdul Aziz City of Science and Technology and King Saud University. The foundation was managed by a board of directors which consists of princes, ministers, businessmen, and eminent specialists. The KACFG aims to co-ordinate and supervise all efforts of identifying the gifted and talented

students and support them in their education and their productive endeavours. Over the past years, the Foundation has made strides in creating the basic framework and organization for achieving goals for which it was originally established

The goals of the KACFG are:

- to encourage and support giftedness, invention and creativity;
- to produce professional pathways in the disciplines of environmental sciences, communication, education, arts, medicine, telecommunication, engineering science and technology;
- to support and provide enriched educational activity for the gifted and talented students;
- To educate parents, teachers, and employers about methods for the development of gifts and talents;
- To help educational and specialized institutions across the Kingdom in creating an inclusive program for the gifted and talented (KACFG, internet reference, 2006).

Finding ways for providing the gifted and talented with scholarships to fulfil their educational potential is one of the foundation's functions. In addition to this, helping these students to find the needed funds to continue their pursuit of excellence is a serious objective of the Foundation. The department of Scientific Affairs of the KACFG is making efforts to become a centre for the inventive spirit of the Kingdom. It is developing an organization which will invest in creative ideas, facilitate the inventive processes and support inventors to bring their creations to the market place. Furthermore, it has created an on-going forum for their inventions. The Foundation addresses practical issues such as current trends in science, engineering and technology. It is, in other words, developing a vision of creativity to be a part of the educational process in the future of Saudi Arabia.

1.7.4.1 Support for Gifted Education

The KACFG is the first and the biggest foundation to support the education of the gifted and talented in the Saudi Arabia, as it supplies programmes and support with substantial funding. The KACFG provides funds and support to students in the six main centres for gifted education of the Ministry of Education of Saudi Arabia. These centres are located in Riyadh, Jeddah, Taif, Madinah, Dammam, and Al-Hassa. They work on identifying gifted children and providing them with enriched educational activity. They also assist in the teaching of the whole community about the nature of giftedness and about the role that

talents and talented people will play in the future of the Kingdom of Saudi Arabia. Additionally, the Foundation is committed to providing training for all those who interact with the gifted children (KACFG, internet reference, 2006).

1.7.4.2 New Gifted Students Developments in Saudi Arabia

Currently the gifted children in Saudi Arabia are given support with recent projects and developments sponsored by different groups and the government. To this, King Abdullah Bin Abdulaziz, custodian to the 2 Holy Mosques, said that, "It is the duty of us all in the age of innovation to nurture giftedness and talents." He is the president of the newly formed Mawhiba Foundation, which is popularly known as the King Abdulaziz and his Companions' Foundation for Giftedness and Creativity (Mawhiba, internet reference, 2007). His adviser and acting minister is Prince Abdul Ilah. This foundation was started in order to cater for certain challenges for Saudi Arabia and will last up to 15 years based on its national development strategy, which is by the year 2022. It covers 5 major initiatives of science, technology, leadership, initiative and management (Arab News, 2008). About 30,000 gifted men and women in the said country will be sponsored by the foundation together with 80,000 students, who will be cared for by its programmes. This project attracted a global buzz. Major international institutions like Johns Hopkins, Oxford, Cambridge and Texas universities have vowed to contribute their support to the said foundation.

On a whole perspective, Mawhiba focuses on cultivating intellectual talents and personal qualities of gifted students, which should train them into young leaders in the future. Highlights of the said foundation are: summer programs initiated by prominent national and international universities; **Imagine Service** is an electronic interface wherein middle and high school students can transfer their own ideas or projects requiring for an expert assessment in particular fields of concentrations; Shawer Service is a specialized educational consultancy catering to gifted individuals, parents and educators; competitions and scientific creativity awards; and the National Portal for giftedness, creativity and innovation (Mawhiba, internet reference, 2007). Pertaining on one of the said highlights, Mawhiba's summer programme is the Saudi Aramco's Summer Programme for the Gifted. Students enrolled in this, gain positive achievements and acquire newfound abilities by the end of the month. The main goal is to ensure a lead pace for and endow an enjoying stay to each student. It advances information that can get the students in second year college. Its platform consists of Saudi Aramco giving all the logistical support; Mawhiba sustaining

the quality assurance, a big part of funding and student selection, while the Talents Center monitors the science welfare (Brundage, 2008).

Another good programme of the Mawhiba is the **e-portal** project for the gifted students. It should develop and create a National Electronic Portal that encourages a potential of giftedness in young Saudis, whom were carefully selected by the Mawhiba and Arabian Advanced Systems. Actually, the e-portal project is one of the core projects under the strategic plan of Mawhiba to advance the culture of innovation and creativity of the youth population. Upon accessing the portal, visitors can benefit in unique services, information resources and libraries bearing the most updated scientific information. In close collaboration with Microsoft Saudi Arabia, it will use Microsoft Share Point 2007 technology. The domain name is www.mawhiba.org.sa. E-portal is expected to fulfil the foundation hopes and reinforce the country's wishes to have a knowledge-based society. According to Mawhiba, the secret to a progressing country is strengthening talent, innovation and creativity among its citizens, especially the youth, who are the future of Saudi Arabia (Golden, 2007).

1.7.5 King Abdullah University of Science and Technology Précis

A further recent development in providing high quality education to most gifted Saudi students has been the establishment of a new University. The present monarch, King Abdullah bin Abdul Aziz al-Saud, has approved the King Abdullah University of Science and Technology (KAUST). Scholarships are provided in order to ensure that KAUST students, identified as potentially gifted, are financially supported throughout their time at the University. Those who obtain the Discovery Scholarships (as they are referred to) will receive full tuition support, a stipend as a source of revenue, and summer and professional enhancement programs (IORESA, 2006). The establishment of this new University is considered to be an outstanding method of support projected to attract the attention of gifted and talented students from Saudi Arabia and from other countries around the world.

In the KAUST Official Website (2008) KAUST is described as:

> *…an international, graduate-level research university [with set] focus on areas that are important to the future of Saudi Arabia, the region and the world and will take place in world-class facilities serving students, researchers and faculty in disciplines such as energy and environment, water desalination, industrial biotechnology, and scientific computing.*

The establishment of such a high profile University is further evidence of the Saudi government's commitment to nurturing the gifts of its young population.

1.7.6 Regulations relating to gifted education in Saudi Arabia

In order to sponsor gifted students, the Ministry of Education developed regulations and policy guidelines based on the findings of available research, which is sparse. The regulations are divided into four sections, which include twenty rules. The main goal behind these regulations is organizing and supporting the education system in the Kingdom and helping gifted students to achieve their potential. For the purpose of establishing these regulations, gifted students are defined by the Ministry of Education as *those who have extraordinary abilities or have a unique performance over their peers in different fields which are valued by society*. These students are believed to be in need of educational sponsorship which is unavailable to them in the ordinary curriculum (Educational-Registration, 2003). In order to implement the regulations, a plan for sponsoring and identifying gifted students was prepared and it comprises **three** integral parts.

- The **first part** relates to the **identification** of gifted students through achievement tests and teacher nomination and participation in classroom activities (Al Saif, 1999). New methods of identifying gifted students in basic education such as mental ability tests, Torrance tests for creative thinking and Wechsler tests for individual intelligence were applied by The General Administration for Sponsoring Gifted Students. These methods were developed for the Saudi culture by King Abdul Aziz's City of Science and Technology (Abu Nyan *et al*, 1997). A working paper about measurement of age questionnaires and stages has been adopted in the last four years in Saudi Arabia, using the measurement originally developed in the USA. This scale includes 19 branch measurements to measure the abilities of infants ranging from birth to 5 years old.
- The **second part** considers the **provision** needed for gifted students in their basic education. Ways of nurturing gifted students in basic education in the Kingdom includes the facilitation for gifted students to participate in different activities. They are offered moral support and opportunities for developing their talents through optional activities. They are encouraged to use the library and their parents are notified of their talents, listing information about their intellectual superiority. Exhibitions are held for their creative products and trips are arranged for them (Al Saif, 1999).

- The third and **final part** considers **community** awareness of gifted children and focuses on making the community aware of the concept of gifted and matters in relation to this. This was designed to develop the abilities and talents of gifted students, offering sponsorship, helping to overcome the educational, social and personal administrative difficulties which limit the development of their abilities and talents (Al-Ghamdi, 2007).

Despite all the support structures, challenges and constraints facing gifted education in Saudi Arabia are also identified, based on a limited number of studies and educational literature.

1.8 Educational obstacles to implementing the gifted programmes in Saudi Arabia

According to Al-Ghamdi (2007), the basic education system in the Kingdom using exciting school plans does not encourage the development of skills and abilities of gifted students. Hanoreh (2003) maintains that the schools do not play the role required of them in the promotion of distinguished and gifted teachers and that the schools are not successful at developing creative thinking in students. Al-Magid (200) noted a lack of positive trends among teachers relating to the education of gifted students and highlights the lack of a favourable environment in schools in which freedom, tolerance and acceptance prevail. Other restrictions that limit interest in gifted students are listed as: teachers not modifying the curriculum to develop the thinking and creativity of students, not encouraging students to raise questions without fear or embarrassment and not taking advantage of the techniques of modern science such as computers in the development of creativity in gifted students (Al-Magid, 200).

Alemselm and Zainal (1992a) emphasized the absence of educational devices and facilities that are required for gifted students' programmes and highlighted that the absence of specialized teachers for designing and carrying out gifted programmes would prevent appropriate provision for gifted students.

Ali (2000) highlighted that developing talent and creativity in society needs to address many aspects, such as: co-operation, cultural, educational, social and personal efforts which start with choosing a suitable education system in accordance with global education systems. It was also pointed out by this author that creative activities and teaching methods should be based on a problem-solving model and the ability to imagine and create things. Thirdly, 'positive' teachers would be able to play a positive role in establishing social

relationships with their students in the classroom, encouraging their self-confidence which would decrease frustrating conditions and encourage students to be creative.

Ibrahim (2002) pointed to a practical problem relating to the identification of gifted students, because of the large numbers of students in regular classes and absence of suitable methods and tools for identification as well the issue of the lack of creative teachers. Salwe's study (2007) expressed concern about the large concentration in the numbers of gifted students in natural and applied sciences, as shown in Table 1.4.

Table 1.4 Gifted students identified in different areas

Gifted Area	Percentage %
Electronics	
Sciences	
Mathematics	
Computer	
Innovation	
Invention	
Arabic language	
All others	

1.8.1 Personal Difficulties or 'The Self-obstacles'

Al-Ghamdi (2007) noted that the personal difficulties which gifted students face in their basic education in the kingdom relate to desires, interests, abilities and personal arrangements. This is consistent with what Alegrete (1989) had highlighted as difficulties such as the absence of psychological sponsorship in addition to absence of a suitable environment that secures the psychological health for gifted students at this stage leading to a delay in identifying their needs. For example , gifted students are known for specific personal characteristics such as independence, interest in thinking, sensitivity, freedom and curiosity which need to be recognised, accepted, understood and supported as 'they are essential psychological needs that must be satisfied, since not focusing on them leads to the atrophy of their talent'. This is consistent with Porter's (2005) view that the impact of the

difficulties and problems in the lives of most gifted students is much greater than that of their less gifted peers and they need special counselling services to help them overcome these difficulties and help them adapt and enjoy a high level of sound psychological health, these are issues that need to be addressed. The need for using innovative ways of identification of ability is also highlighted, since those who oppose non-traditional theories of intelligence are sceptical of the grades obtained from traditional intelligence tests in the identification of gifted. This is limited to assessing the linguistic, logical and mathematic ability without focusing on other abilities such as spatial and personal intelligence (Alegrete, 1989). In line with modern trends, such as Gardner's theory of multiple intelligences (1991) as well as other theories of talent development, new thinking and ideas are recently starting to appear in Saudi Arabia.

1.8.2 Social obstacles

Gifted Education faces serious obstacles in maintaining its goal when many families and the society do not offer support for gifted students. The family environment of gifted students is also considered a source of difficulties. Home is the place where a gifted student establishes his/her personality and satisfies his/her needs. It is also a place where gifted students receive social education in accordance with common values and morals in his society (Al-Ghamdi, 2007). One of the main difficulties that acts as a barrier to identifying gifted students' plans was described as the family's inability to encourage and develop their gifted students' talents (Al-Ghamdi, 2007). This decreases the chance of gifted students expressing their aspirations and plans. Force, domination, cruelty, neglect, frustration, fear and being worried are psychological difficulties gifted students experience. These have a negative impact on gifted students since they damage their self-confidence and self-esteem. The lack of awareness of the meaning of gifted, consequences of indifference, and lack of attention to the capabilities of the gifted student can lead to frustration and negligence. The lack of an appropriate home environment, resources necessary to identify gifted students and the failure to provide suitable activities that would lead to appropriate provision for gifted students are highlighted by Alegrete (2005).

With gifted students, whose unique mental abilities have been failed by education, could be a result of social problems they face. These problems are associated with family factors such as absence of suitable opportunities for gifted students to practise independence and create social relationships. In addition, the problems associated with these trends stem from problematic parenting (Gerawan, 1999). Dixon (1996) maintains that gifted students face several possible risks such as alienation, feeling of isolation, and being rejected by their

peers and society members. If these feelings persist, the feelings of alienation and isolation may push these students to adopt behaviours that can be devastating for the self, including: academic failure, drug use, alcohol, depression and indifference, or even suicide.

What Colangelo and Dettman (1983) identified as helpful in the field of identifying and providing for gifted students could be helpful in the Saudi context. The authors list the steps as:

First step: Enlightenment of the gifted students' teachers and supply of the information of talent by co-operation with school and holding meetings, since the teacher does not have sufficient time to identify all gifted students.

Second step: Holding meetings with teachers and students' advisors in order to supply them with guidance on how to help gifted students', such as: recognizing the right way of dealing with gifted students, consideration of the gifted students' psychological and social characteristics and sponsoring their abilities.

Third step: Sponsoring gifted students by using financial support in the society such as: universities and social associations which are able to supply them with the material aids.

1.8.3 Administrative obstacles

When Primary schools are given the responsibility for identifying and sponsoring gifted students, obstacles highlighted included the lack of facilities in terms of school buildings, furniture and playgrounds. The high administrative burden placed on the headteacher, the intensity of the school curriculum and the lack of experts to support gifted students are also listed as obstacles (Al Saif, 1999). Some other administrative obstacles are: administrators of school not possessing the skills that contribute to the design of gifted programmes, the hours being insufficient to implement the gifted programmes, students getting no credit in return for extra-curricular activities, and the lack of powers granted to the headmaster (Al Saif, 1999).

In 1978 Ibrahim had noted that most of the research in the field of educational administration did not actually reach gifted students. This, as believed by some, is seen as a sign of failure by the schools' administration. In fact, they believe that identifying gifted students and finding the right social environment that supports the development of their talents, is the role of their schools' administration. It was noted that those teachers who allow and encourage freedom of thought with their students are often those with whom the school practises such principles with them. This mentality and approach would offer a

more effective social environment inside the classes, thus encouraging and developing the talent of the gifted students.

Finally, Al-Ghamdi (2007) maintains that the lack of attention to manpower trained in basic education in the Kingdom is one of the administrative obstacles to catering for gifted students, since the lack of such skills will not help to establish and regulate the use of adequate and effective methods for the detection of talent and provide proper care for them.

1.8.4 Lack of research

Research has highlighted the following barriers to the identification and support for gifted students in Saudi Arabia: First, there is a lack of scientific studies which deal with the gifted students in the kingdom of Saudi Arabia. According to Suliman (2006), there is a lack of scientific and field studies in gifted students' sponsorship issues. That was also confirmed by the introduction in the Gifted Regional Scientific Conference which was held in the kingdom of Saudi Arabia (Suliman, 2006). One of the results that this study shows is lack of research and some difficulties that act against carrying out scientific research into gifted students in Arabic countries; they are the following:

- Absence of planning and weakness of collective official care in scientific research in the field of gifted education.
- Lack of support and finance for such research.
- Absence of co-ordination and integration between Arabic scientific research associations.
- Lack of integral care between the different scientific majors in carrying out scientific research.
- Absence of a comprehensive scientific data base into the gifted.
- Difficulty of carrying out scientific research into gifted students at a younger age.
- Lack of skilled Arabic staff in order to identify gifted students by using scientific methods and by carrying out deep-rooted and experimental research.
- A communication gap between the researchers and decision makers.

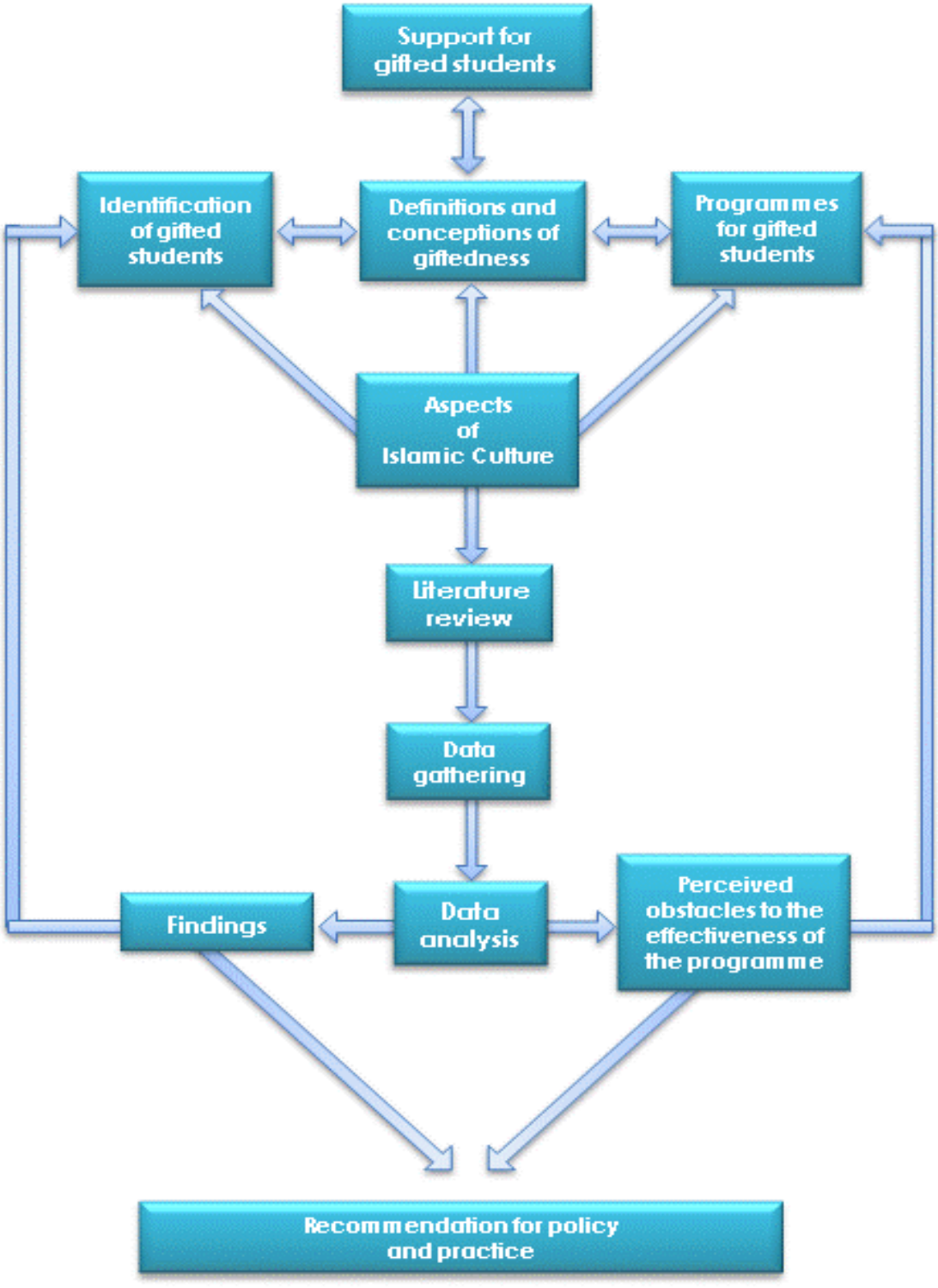
1.9 Need for this study

As described earlier, there are many obstacles which prevent the establishment and provision of effective gifted programmes in Saudi Arabia. Further research and in-depth studies need to be developed. These issues highlight the importance of this study, which

aims to study the nature of the programmes for gifted students adopted by the Ministry of Education in the Kingdom of Saudi Arabia and explore ways in which these programmes may address their special educational needs more effectively. It is hoped that this study will make a contribution to enhance gifted education within Saudi Arabia.

Taking account of Miles and Huberman's (1994: p.18) advice that 'theory building relies on a few general constructs that subsume a mountain of particulars' I have presented a simple conceptual map of the direction of my study. Figure 1.3 presents the conceptual framework which addresses the significant aspects of gifted education in Saudi Arabia. Gifted education and all aspects relating to it are complex. The complexity arises from several aspects: lack of consensus about what giftedness means, the different theoretical dispositions of those who design and implement policies and the cultural background of where the policies are adopted. The ultimate aim of this study is to explore ways of providing the maximum support for gifted students in Saudi Arabia. This will involve a consideration of ways in which students are identified which is influenced by definitions and conceptions of giftedness and the nature of the programme offered to gifted students. Contextual factors such as doctrines of Islam, cultural influences and educational obstacles influence both aspects – identification and provision. Developments in gifted education and models of provision in other countries will be used to design a framework for data gathering and analysis. Based on the findings questions, will be raised and discussed on the effectiveness of both identification of and provision for gifted students in Saudi Arabia and recommendations made.

Figure 1.3: Conceptual frameworks for the appraisal of the design of a strategy for gifted education



1.10 Summary

To sum up, this chapter described the current situation of gifted education in Saudi Arabia. A first attempt of identifying problems in the gifted education programmes in this country has been made. The aims of the study and the personal motivation of the researcher to identify possible areas of improvement for the gifted education in Saudi Arabia were presented.

The last section of this chapter focused on the situation that exists in Saudi Arabia and the many opportunities-both planned and delivered-for gifted students. It should be noted that the terminology used in this study 'gifted' and 'gifted education'. This final section has helped in identifying the problems, difficulties and obstacles that exist in Saudi Arabia. This also helped to identify the issues that need further exploration through an empirical study. An urgent need of doing research in this country is evident through the difficulties that exist in this specific field. A review of the background literature demonstrates that there is strong commitment and willingness from both the Ministry of Education and Mawhiba to contribute to an effective system of gifted education. Several methods of identification and provision exist. The need for support for the personal needs of gifted students and the parents are highlighted. There is a desire for community involvement. Encouraging creativity, inventions and global competitiveness is part of the commitment and generous funds are made available. How these ambitious plans are translated into practice is the focus of this study.

1.11 The structure of the thesis

This chapter has focused on the context of the study, the personal motivation for the study, research problem, aims of the study and the research questions, history of education in the Kingdom of Saudi Arabia and the development of Gifted Education programmes. Chapter two focuses on definitions and theories of giftedness, issues of identification, characteristics of gifted students, and provision for gifted students. Chapter three focuses on research methods-both quantitative and qualitative data methods were used-and methods of selecting the samples, methods of data collection. Chapter four, five and six present findings of the empirical work and the findings are discussed in Chapter seven from which conclusions are drawn in Chapter eight along with recommendations, difficulties encountered, limitations and personal learning.

CHAPTER 2

LITERATURE REVIEW

CHAPTER 2

Literature Review

2.1 Introduction

This chapter provides a review of literature relevant to two major aspects in gifted education - the identification of and provision for gifted students. The contents of this review constitute the basis for the empirical work relating to the research questions and the subsequent analysis. It starts with an examination of a range of definitions and conceptions of giftedness. Theories and research relating to various aspects of gifted education are reviewed, accompanied by a critical analysis of various points of view on the complex and contested conceptions of giftedness which provide a theoretical framework for this study.

The way we understand the term giftedness and conceptualize the term will, no doubt, influence the way we identify students' abilities and talents and the nature of what opportunities are provided for them. Therefore it is important to try and understand the concept of giftedness and how it has evolved over the years. In this study, which investigates educational opportunities for gifted students in Saudi Arabia, an exploration of the theoretical positioning of experts who have been involved in gifted education is of paramount importance.

2.2 Definitions and the changing conceptions of 'giftedness'

There is no universally accepted definition of giftedness and it is difficult to find agreement between authors, writers and others who are involved in gifted education. Views also range from those who believe that gifted pupils are simply exceptionally intelligent and can take care of themselves to those who passionately argue that these children need special attention. Reaching an agreement is a challenge because of the complexity of defining a concept which is beset with conflicting theories and viewpoints around the world. Van Tassel-Baska (1998) points out that the twentieth century has seen the greatest developments in the field of gifted education:

> *The issue of taking an interest in gifted people is an old one, as for centuries philosophers tried to present various explanations, most of which relate to supernormal and outstanding capabilities, magic or inspiration (Programme of Identification and Care for Gifted Students (p.11).*

In the past, the term ‘genius’ was widely used to describe gifted children and this term is still used in the media. The modern term ‘giftedness’ was first used in 1869 by Galton in his scientific activities towards understanding giftedness (Van Tassel-Baska, 2001). Much of the literature on gifted education has its origin in the USA. The idea that a high Intelligent Quotient (IQ) equated giftedness dominated for several decades. IQ is still used as a measure in many countries. Important landmark studies include those of Terman and his associates (1925, 1926, 1947, and 1959), whose longitudinal studies provided information about highly gifted people. This research which is to encompass the entire lives of the original group of 1528 gifted youths with Intelligent Quotients (IQs) above 140 will continue until 2020. The concept of IQ is described later in this chapter. Terman and his co-researchers pioneered the field, but it is interesting to note that, while other factors such as age and achievement were considered, the definition of giftedness relied heavily on testing for high IQ levels. The broad field that giftedness has become had, at its roots, a narrow definition and middle - to upper - class aspirations (Cornell, 1984). Furthermore, in the 1940s, as Sternberg (2004) points out, intelligence tests were the main criterion used to identify the gifted and that many people still rely heavily on IQ or IQ related tests for the purpose of defining gifted students.

We can trace back efforts on trying to make sense of the concept of intelligence to the early 1800s, to the work of Sir Francis Galton (1822-1911). Galton attributed the differences in people’s intelligence to aspects of heredity and raised the question of what influence heredity had on human abilities. According to Sternberg (1994), Charles Spearman, a psychologist in Britain who was influenced by Galton’s work and a psychometrician, discovered the *‘g’* – general factor – as a measure of ability. During the 1890s, French researchers Alfred Binet and Theodore Simon were charged by the government to devise methods of assessment of children’s abilities. Based on characteristics such as memory, reasoning and comprehension, the researchers designed tests to assess performance, known as Binet-Simon intelligence tests. In the USA, Lewis Terman, who was engaged in studying abilities of students, modified the Binet-Simon tests and launched the Stanford-Binet Intelligence Scale (Terman, 1916). Terman defined intelligence as the top 1% in general intellectual ability. These Intelligence tests became popular in the USA and other countries and have been used for educational purposes since their conception for the assessment of abilities and to plan provision.

There are numerous other terms synonymous with the word ‘gifted’ that have been used in the literature. Amongst those are ‘precocious’, ‘of high ability’, ‘creative’, ‘accelerated’ and ‘talented (Silverman, 1982). In her international review of literature, Freeman (1998:

1) uses the phrase ‘very able’ and the term ‘gifted’ which she describes as ‘that troublesome word with its implications of gifted bestowed intact from on high’. She also states that many other modified terms such as ‘moderately gifted’, ‘very gifted’ highly gifted’, ‘profoundly gifted’, ‘seriously gifted’ and ‘average gifted’ are being used, pointing to the complexity of the terminology and definitions relating to the concept of giftedness.

The Intelligence related perspective of giftedness is still in use in many countries and the level of giftedness is differentiated by some. A person with an IQ of 130 or above is classified as ‘gifted’. For example, in Australia Gross (2000) classifies intellectually gifted students as *mildly, moderately, highly, exceptionally* and *profoundly* gifted, according to their Intelligence Quotient (IQ) scores. Levels of intellectual giftedness, as defined by IQ ranges, and the level of prevalence of such children in the general population, appear in summary form in Table 2.1 (Gross, 2000).

Table 2.1: Levels of intellectual giftedness, as defined by IQ ranges (Gross, 2000)

Category of giftedness	IQ score	Proportion of population
Mildly (or basically) gifted	115-129	(1:6 - 1: 40)
Moderately gifted	130-144	(1:40 - 1:1000)
Highly gifted	145-159	(1:1000 - 1:10,000)
Exceptionally gifted	160-179	(1:10,000 - 1:1 million)
Profoundly gifted	180+	(Fewer than 1:1 million)

2.2.1 Changing conceptions of giftedness

The single dimensional conception of giftedness has led to much criticism over the years. For example, according to Sternberg and Grigorenko (2002) intelligence is not a fixed entity, but a flexible and dynamic one; it is a form of ‘developing expertise’ which is an ongoing process of the acquisition and consolidation of a set of skills needed for a high level of mastery in one or more domains. Renzulli (2005) endorses the concept of developing expertise and states that intelligence is only one of the six forces that generate creative thought and behaviour. It is the confluence of intelligence, knowledge, thinking styles, personality, motivation and the environment that forms gifted behaviour as viewed from a creative productive perspective

Renzulli (2005) maintains that:

> *Intelligence is not a unitary concept but rather, there are many kinds of intelligence and therefore single definitions cannot be used to explain this complicated concept* (p.251).

Gardner (1983), through his seminal work, added to the debate on the concept of a single dimensional view of intelligence when he formulated the theory that human beings possess seven types of intelligences (he added more in later years). Gardner's theory of Multiple Intelligence is reviewed later in this chapter.

Reflecting the changing views of ability and moving away from the single dimensional view of giftedness, the advisory committee led by Marland in the USA, (1972) suggested that it can be assumed that utilization of a set of criteria for the identification of gifted and talented will encompass a minimum of 3 to 5 per cent of the school population. It was suggested that evidence of gifted and talented abilities may be determined by a multiplicity of ways which should include both objective measures and professional evaluation measures. Professionally qualified persons to make assessments were to include teachers, administrators, school psychologists, counsellors, curriculum specialists, artists, musicians and others with special training in assessing pupils' competencies. A commissioned committee which investigated the education opportunities necessary to nurture, guide and challenge the abilities and talents of young people had this to say:

> *Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. There are children who require differentiated educational programs and services beyond those normally provided by the regular school program in order to realise their contributions to self and society (Marland, 1972, p2).*

They put forward a new definition for gifted children which also introduced the word talent:

> *Many talented children under-achieve, performing far less than their intellectual potential might suggest. We are increasingly being stripped of the comfortable notion that a bright mind will make its own way. On the contrary, intellectual and creative talent cannot survive educational neglect and apathy (Marland, 1972, p9).*

The different terms – giftedness and talent – have gradually come into use to describe highly able children, although they seem to be used interchangeably. Gagne (1985) made a distinction between the two words and explained that giftedness refers to domains of human abilities and talents to domains of human accomplishments.

In 1970, the Congress of the United States, in a study focusing on providing education opportunities for gifted and talented children, set up an advisory committee (led by Marland), which put forward the following definition of gifted and talented students. The Marland report states: 'children capable of high performance include those with demonstrated achievement and/or potential in any of the following areas, singly or in combination:

1. General intellectual ability.
2. Specific academic aptitude.
3. Creative or productive thinking.
4. Leadership ability.
5. Visual and performing arts.
6. Psychomotor ability.

It is to be noted that the last – psychomotor ability – was eliminated from the definition soon after.

The Marland report marked a shift from the single dimension definition of giftedness in the USA.

Renzulli (1978) was among those who proposed a liberal definition of giftedness which departed from the narrow, single-dimensional IQ-based view. This was welcomed world-wide and has been the subject of much discussion throughout the 1980s. Renzulli proposed that giftedness is an interaction of three basic clusters of human traits:

- above-average general abilities
- high levels of task commitment
- high levels of creativity.

This definition can be seen as a broader and less rigid one and Borland (2005) believes that on the basis of Renzulli's concept of giftedness more people could be identified as gifted.

In the United Kingdom where development of gifted education has been slow, the first recorded acceptance of gifted children (who were referred to as 'very able children') in

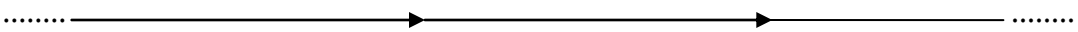
schools can be seen in the report *'The Education of Very Able Children in Maintained Schools'* (Her Majesty's Inspectorate, 1992) which put forward a number of identifying traits that characterise such children. This report, which also provided a broadened conception of giftedness, describes gifted children as those who demonstrate high general intellectual ability, creative or productive thinking, a specific aptitude in one or more subjects, ability in creative or performing arts and psychomotor ability and leadership qualities.

It appears that the classic definition of giftedness as intelligence based on a single measure has been fading in favour of a broader view of multiple talents and abilities (VanTassel-Baska, 1998). The term 'creativity' also finds a place in the later definitions of giftedness. In Queensland (Australia), the 1993 Education Department policy adopted the following definition: 'Gifted children are those who excel, or have the potential to excel, in any general or specific ability area' (Gross, 2000). This definition, though brief, also reflects a broader conception of giftedness and includes many of the ideas from the previous definitions of giftedness.

Although there have been many attempts by voluntary organisations to bring gifted education to the fore-front, it is only in 1999 that the UK government launched a policy initiative relating to gifted and talented education. The UK government definition of the phrase 'Gifted and Talented' (DfES, 2006) clusters the two terms – 'gifted' and 'talented' - together with the explanation: **Gifted** describes learners who have the ability to excel academically in one or more subjects such as English, drama, technology. **Talented** describes learners who have the ability to excel in practical skills such as sport, leadership, artistic performance, or in an applied skill'.

The existence of domain-specific intelligences (Gardner, 1983; 1991; VanTassel-Baska, 1998), has also been proposed in the past few decades. In VanTassel-Baska's (2005) conception of giftedness, giftedness becomes the manifestation of intelligence within specific domains at very high levels and conceptions that focus on domain-specific considerations hold the most promise for promoting talent development in individuals at all stages of development because of the capacity to make appropriate correspondence between aptitudes and interventions and between predispositions and interests. The view that ability is multi-dimensional and the fact that individuals vary considerably in their ability to function effectively in various domains adds support to this view. VanTassel-Baska maintains that consideration must be given to the 'rubber band effect' of human potential and that the key is to provide the best opportunities to stretch an individual's

potential flexibly in areas of best flexibility for learning. Koshy and Casey (1997) propose that for the purpose of making appropriate provision for gifted children, it is useful to view ability as a continuum as illustrated below. The authors defend this view by acknowledging the complexity of identification. They urge teachers to focus on provision rather than labeling children as gifted and non-gifted; through effective differentiated provision, children would demonstrate their particular gifts and talents.



able more able exceptionally able

Having briefly considered the different definitions and explanations used for over a century to refer to giftedness or abilities that make them stand out from others, it can be seen that characteristics and attributes relating to giftedness have also varied throughout the century. There has been a shift from the initial intelligence-related view (Terman, 1925) to a creativity-related definition put forward by Torrance (1965) and then to a move to a wider view of giftedness, which includes numerous aspects of human contributions to life (Hagen, 1980; Fox, 1981; Gardener, 1991; Renzulli; Stenberg, 2004). It is also worth noting that there are differences in the way giftedness is defined across cultures and different countries.

This section focused on different definitions of giftedness and how the definitions evolved over time as conceptions of giftedness changed. The definition of giftedness which was first conceptualised as a single dimensional, fixed, measure of human ability has changed to a more liberal definition which reflects the developing nature of ability which is multi-dimensional. The new definitions also take creative productivity into account which can encourage the translation of giftedness into achievement.

2.2.2 Characteristics of the Gifted

This section focuses on the characteristics of gifted students, some of which closely relate to the concept of giftedness which was described in the previous section. Lists of characteristics of gifted children are generally designed to help to recognize the attributes of gifted children in order to offer them suitable provision.

One of the first studies which described the characteristics of gifted students was a study by Terman and Oden (1951). Their study summarized the characteristics of gifted students which include characteristics other than test results and high grades, as can be seen below:

- They have better physical, mental and fitness status than their peers.

- They show high ability in reading, using language, mathematical skills, science and arts.
- They have their own interests and practice different hobbies in order to gain a lot of information.
- They are self-confident and score high grades in tests of personality stability.
- They have aptitude and a leaning towards all kinds of careers.

Twenty six years later, the American Education Office (Marland, 1972) listed six basic characteristics which are displayed by gifted students. Each one is followed by a group of specific attributes and indicators which distinguish gifted students from others. They are as follows**:**

General intellectual ability or talent

Ordinary people and educators alike usually define this in terms of a high intelligence test score. Parents and teachers often recognize students with general intellectual talent by their wide-ranging amount of general information and high levels of vocabulary, memory, knowledge, and abstract reasoning.

Specific academic aptitude or talent

Gifted students with specific academic aptitudes are identified by their obvious performance on an achievement or aptitude test in one field such as mathematics. The organizers of talent searches sponsored by a number of universities and schools identify students with specific academic aptitude who attain high scores in Scholastic Aptitude Tests (SATs). SATs are used widely in the USA.

Creative and productive thinking

This characteristic deals with bringing up dissimilar ideas or elements to come up with new meanings that have social value. Characteristics of creative and productive students include openness to experience, being playful, willingness to take risks, tolerance of ambiguity, positive self-image and the ability to become submerged in a task. Creative and productive students are identified through the use of tests such as the Torrance Test of Creative Thinking or through demonstrated creative performance.

Leadership ability

Leadership can be defined as the ability to direct individuals or groups to a common decision or action. Students with leadership characteristics use group skills and discussions

in difficult situations. Many teachers recognize leadership through a student's keen interest and skill in problem-solving. Leadership characteristics include self-confidence, responsibility, co-operation and the ability to adapt readily to new situations. These students can be identified through instruments such as the Fundamental Interpersonal Relations Orientation Behaviour (FIRO-B).

Visual and performing arts

Gifted students with talent in the arts demonstrate special talents in visual art. These students can be identified by using task descriptions such as the Creative Products Scales, which were developed for the Detroit Public Schools by Patrick Byrons and Beverly Ness Parke of Wayne State University.

Psychomotor ability

This involves kinaesthetic motor abilities such as practical, spatial, mechanical, and physical skills. It is seldom used as a criterion in gifted programmes (Marland, 1972).

The above descriptions can be seen to be even broader and less rigid than relying solely on IQ measures, thereby allowing more people to be classed as gifted. A number of other authors have produced checklists describing the characteristics of gifted pupils (Koshy, 1997; Freeman, 1998).

Clark (1992) describes the characteristics of gifted students within five fields. They are:

- Knowledgeable characteristics (thinking).
- Emotional characteristics (feelings).
- Physical characteristics (sensible)
- Intuitive characteristics.
- Social characteristics.

Using a questionnaire for parents designed by Rogers (1986), the following characteristics emerged from a comparison of 100 'gifted' and 'average' children:

- rapid learning ability;
- extensive vocabulary;
- good memory;
- long attention span;
- perfectionism;

- preference for older companions;
- sophisticated sense of humour;
- early interest in books;
- ability to do puzzles and mazes;
- maturity;
- curiosity;
- perseverance;
- keen powers of observation.

An Arabic study, that was carried out by Al Soror in 1989 (cited in Alsurur, pp22, 2003) proposed the existence of five basic categories of gifted children's behavioural characteristics in Jordan. They are:

- Behavioural characteristics in leadership such as being popular with peers, responsibility, co-operation and participation with teachers and peers.
- Behavioural characteristics in learning such as a wide range of knowledge (quantity and quality), high knowledge ambitions and a considerable interest in reading.
- Behavioural characteristics in creating; such as curiosity, imagination and risk taking.
- Behavioural characteristics in perseverance; such as seeking perfectionism and participating in all activities and productions.
- Behavioural characteristics in flexibility of thinking, such as rapid reactions, good ability in judging things and a willingness to change a routine.

A working paper about measurement questionnaires on ages and stages has been used in the last four years in Saudi Arabia, which was originally developed in the USA. This scale includes 19 branch measurements to measure the abilities of infants ranging from birth to 5 years old. Experimental studies were also carried out for that scale on more than one Saudi child who was under the age of five. It was claimed that the research has had positive results in identifying gifted students (Alothman, 2006).

It is interesting to note from the Arabic study that there were many similarities between the characteristics displayed by gifted students in Arab countries and their peers in western countries. It would appear that culture does not directly affect gifted students' behavioural characteristics.

2.3 Models of Identification of gifted students and related theories

The conceptions and definition of gifted children are closely related to the process of identification of giftedness. In this section literature on methods of identification of gifted students is reviewed, which will be followed by a review literature on aspects of provision of educational opportunities that will extend and/or enrich the learning of the gifted students. It could be argued that using accurate methods of identification is critical in determining the nature of provision. For example, Gubbins (1995) believes that identifying gifted and talented students is not just about answering the question, 'who are they?' but it must also address the question, 'how do we find them?' and 'what do we do when we find them?'

A number of methods of identification can be found in literature relating to giftedness. In some countries, the only means used for identification is the use of standardized tests. In others, the standardized test is only one of the factors in the identification process and in addition to test scores, nominations and recommendations of teachers, parents, staff, and even self-nomination are used (Blackshear 1979; Denton and Postlethwaite, 1984).

Bondagjy (2000) believes that a single test to determine general ability may not be sufficient and that subject-specific tests may need to be used:

> *Standardized tests of intelligence offer a good base for staff to identify potential capability, including that of some pupils whose performance is otherwise undistinguished as poor. In a few schools the tests are used in isolation without reference to individual aptitudes in specific areas of the curriculum, either as a short cut for selecting pupils for special enrichment courses, or for determining the composition of teaching groups of. This is less useful than if combined with a subject-specific test. (p.20)*

Standardised tests are used widely by the supporters of the theories of a one-dimensional view of ability, which go back to the first theories of intelligence, such as Spearman's theory, mentioned in the previous section, which has been received with both enthusiasm and also with scepticism and rejection. The arguments against this single-dimension view of ability (based on general intelligence that consists of areas that are highly correlated with each other and that are mainly intellectual and tested using IQ tests) led to the creation of multi-dimensional theories of ability, such as that of Renzulli, (1978) Gardner (1983, 1991), Sternberg (2000) and others. The multi-faceted theories of giftedness are viewed by many to be more appropriate to define and identify high ability. These authors along with

Csikszentmihalyi, Rathunde &Whalen (1997) and Benjamin Bloom (1985) have all made compelling arguments for a much broader conception of giftedness. Chongde & Tsingan describes the contribution to the more liberal conceptions of giftedness as:

> *Many western theories of intelligence focus on its physiological or cognitive components. However, Howard Gardner's theory of multiple intelligences (1983, 1991), Robert Sternberg's triarchic theory of intelligence (1985) and Stephen Ceci's bioecological theory of intelligence (1996) are much broader in scope. They combine and extend aspects of the biological, hierarchical and contextual views of intelligence which include interactions between mental processes, contextual influences and multiple abilities. (*2003*, p18)*

The following section provides greater detail of the specific models of identification of giftedness and associated views on high ability, which have informed the nature of data collection in the present study.

2.3.1 Identification using standardized tests

This view of ability relies on standardised testing of giftedness and assigning a score to support the identification of ability. The screening phase, testing and nomination are three important steps for the identification of gifted students (Jrwan, 2002), because they enable the early identification of gifted students in schools. Therefore, at the beginning of the past century, identification practices focused mainly on IQ test scores or other measures of cognitive ability (Renzulli, 2004). They are still widely used today although they are not the only method used to identify gifted individuals, perhaps due to the criticisms levelled against ability testing and its limitations over the past two decades, as well as the development of a broader conception of giftedness.

Simon and Binet designed the first intelligence tests, for educational purposes, that became widely popular in the early part of the 20th century. Also very popular were the Alpha and Beta army tests, used during the First World War, in order to assess military personnel (Psychology online, 2005; Ballantyne, 2002).

In the 1930s, Wechsler published his first scale of tests in which he used material from the Binet Alpha and Beta tests. These scales are the most widely used instruments for measuring intelligence in the field of psychology. An important feature of his test was that, when calculating the IQ, the test took the age of the individual into account. Because of this feature, it is believed that the IQ stays constant over the life span of the person

(Psychology online, 2005). According to Colman (2001) the Intelligence Quotient is an index of intelligence which has a normal distribution with a mean of 100 and a standard deviation of 15. As a consequence, about 68 per cent of IQ scores in a population fall between 85 (one standard deviation below the mean) and 115 (one standard deviation above the mean), about 95 per cent fall between 70 and 130, about 99.74 per cent between 55 and 145, and so on. In this test an IQ of 130 is where 'giftedness' is identified. This concept was first proposed in 1912 by the German psychologist (Louis) William Stern (1871–1938), who defined it as Mental Age (MA) divided by actual or chronological age (CA): IQ= MA/CA, and that is how it came to be called a quotient. In 1916 the US psychometrician Lewis Terman (1877–1956) introduced the convention of multiplying the ratio by 100, to eliminate unwanted decimals and to express IQ as a percentage of chronological age, so that IQ = (MA/CA) × 100, and this means that a score of 100 is average for the age group by definition. That definition was used until the Romanian-born US psychologist David Wechsler (1896–1981) introduced the modern statistical definition, sometimes called the deviation IQ because it is based on standard deviations, in 1939.

2.3.2 Identification using a broader conception of intelligence

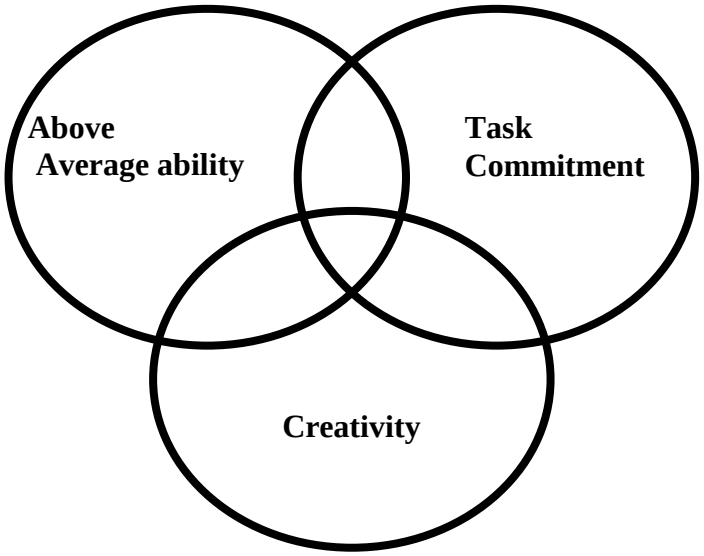
Broader conceptions of intelligence were introduced by experts such as Renzulli (1978) Gardner (1983) and Sternberg (1997). Their conceptions of giftedness often defied assessment through the traditional identification process using tests. These educational researchers have deviated from the early theories and concerns about identification of giftedness. For example, Baldwin (1984) proposed the Baldwin Identification Matrix, which provides a practical set of guidelines relating to the identification of giftedness.

1. *Giftedness can be expressed through a variety of behaviours and the expression of giftedness in one dimension is just as important as giftedness in another.*
2. *Intelligence is a broad concept that goes beyond language and logic; it encompasses a wide range of human abilities.*
3. *Carefully planned subjective assessment techniques can be used effectively, along with objective measures.*
4. *Giftedness in an area can be a clue to the presence of potential giftedness in another area or a catalyst for the development of giftedness in another area.*
5. *All cultures have individuals who exhibit behaviours that are indicative of giftedness (p. 3).*

2.3.2.1 Renzulli's Three Ring model

Instead of just considering high test scores for identifying giftedness, Renzulli (1978) recommends that we look for learners who exhibit above-average intelligence, a high level of creativity, and a strong task commitment. His Three Ring Model of giftedness (Figure 2.1) is represented by three interlocking clusters of ability that overlap and interact with each other.

Figure 2.1: Renzulli's Three Ring Model of Giftedness



Renzulli (1978) defines this group of abilities in two ways. Firstly, he identifies a general ability such as numerical, memory and word fluency, which is quite similar to the general intelligence that cognitive ability tests measure. Secondly, he does not overlook the other specific abilities such as the capacity for knowledge achievement and activities performance.

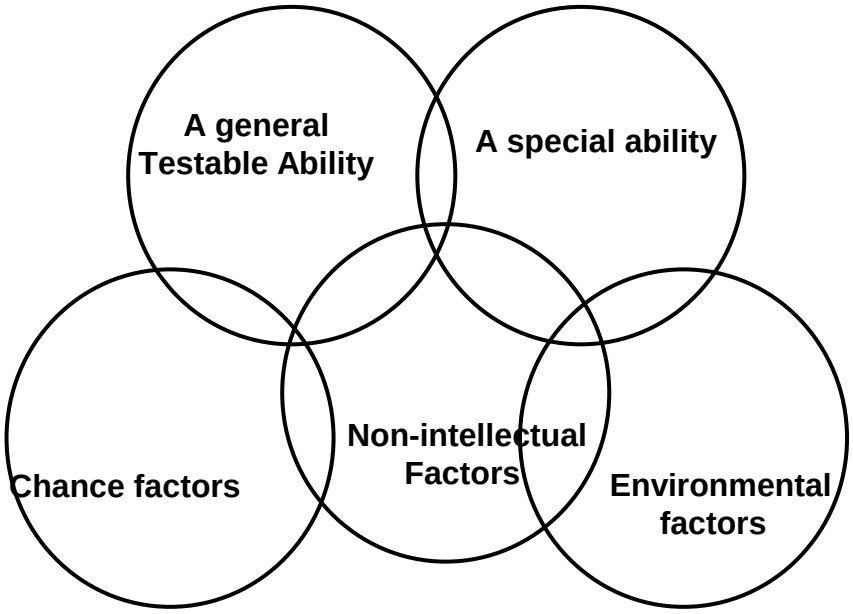
Although Renzilli's model is the most quoted in literature relating to the identification of giftedness, it also has critics. According to Lee-Corbin and Denicolo (1998) there is a disadvantage in Renzulli's model for identifying children who are under-achieving because of low levels of motivation. The model is also described as not being reliable for identifying gifted students who have a very low level of task-commitment (Gross, 2004).

2.3.2.2 Tannenbaum's Model

The model proposed in1983 by Abraham Tannenbaum (Figure 2.2) extends Renzulli's Three Ring Model into a five-factor model. This model incorporates a combination of

factors that are important in considering what giftedness is and what should be considered in identifying those who are gifted. The factors include: general ability (referring to the *g* factor); non-intellectual factors such as dedication and willingness to make sacrifices to accomplish a goal; special ability factors that show outstanding performance in a particular area; environmental factors (stimulating home environment, for example); and chance factors that are unpredictable circumstances in life such as the status of parents, order of birth within a family, etc (Baldwin, 2005).

Figure 2.2: Tannenbaum's Model of Giftedness



2.3.2.3 Howard Gardner's theory of Multiple Intelligences (MI)

In the early 1980s, another challenge to the conventional thinking on the nature of human intelligence and giftedness was launched by Howard Gardner (1983), with the presentation of a new theory described as the theory of MI which proposed the existence of Seven Intelligences. Although the theory of multiple intelligences was not originally designed for educational purposes, it was embraced by educationists all over the world as a fair and practical way of assessing abilities and making appropriate provision (Koshy, 2002). Gardner's theory unites giftedness and talent and describes them as intelligences. Koshy's (2002) interpretation of the seven intelligences is provided in Table 2.2.

Table 2.2: The attributes relating to Gardner's Multiple Intelligences

Linguistic	Enjoys activities involving the use of words, spellings, memorising poems, riddles; enjoys discussions - factual and imaginative; can verbalise ideas; expresses ideas orally or in writing; is a good story-writer or teller; has an extensive vocabulary; asks many questions; shows interest in English and responds well to the challenge of other languages.
Logical-Mathematical	Enjoys playing or working with number activities; awareness of pattern and subsequence; assembles puzzles with skill; produces logical arguments; sorts objects using different criteria and finds similarities and differences; problem-solving skills and shows skills in dealing with unfamiliar contexts; able to plan and describe steps in order and explain reasons.
Spatial	chess; painting; shows aptitude for constructions and designs; shows the ability to dismantle things and reassemble; ability to organise and group objects; demonstrates artistic flair; responds well to texture, colour and pattern; visualises details and perspectives.
Musical	Playing music; appreciating music; enjoys musical activities; shows aptitude to reproduce new melodies or rhythm; compose music patterns and melodies; shows ability to identify musical instruments heard in musical compositions; plays musical selections by ear or hums it melodically; experiments with objects to create different sounds.
Bodily-kinaesthetic	Sports; gymnastics; good motor skills: skipping, jumping, balances; uses body with agility; shows ability to master new physical skills; enjoys touching and manipulating objects in order to learn about them; shows aptitude with movements, e.g. dancing.
Interpersonal	Enjoys helping others; shows a sense of fairness for members in a group and shows empathy; shows leadership skills; expresses feelings to others; shows the need to meet own needs through other adults and peers; participates in group activities; builds relationships easily.
Intrapersonal	Shows awareness of own strengths and weaknesses; shows ability to be self-reflective and engages in self-evaluation; shows self-confidence; capable of laughing at oneself; takes risks; sticks to own beliefs; shows ability to work independently; shows persistence in self-reflected activities.

Originally, Gardner (1983) proposed the seven forms of intelligence: linguistic, musical, logical-mathematical, spatial, bodily kinaesthetic, and intrapersonal (e.g. insight, metacognition), and interpersonal (e.g. social skills) Later, in 1995, the forms had an extra eighth form of intelligence environmental or naturalist intelligence; in addition, in recent times, there has been added a ninth form of existential intelligence.

Although Gardner obtained world acclaim for his seminal work on the theory of Multiple Intelligences, it too has its critics. Freeman (1998) found a weakness in the evidence of Gardner's new theory, believing that it has not been subject to further investigation and that Gardner's theory it is not based on research evidence. Gardner, however, claims that his work has an empirical base.

2.3.2.4 Sternberg's Triarchic Theory

Sternberg's Triarchic Theory of Human Intelligence (1977, 1985 and 1995) subsumes both Spearman's 'g' (general intelligence) and underlying information processing components (Fraser, 2004). Sternberg's definition of intelligence is:

> *A mental activity directed toward purposive adaptation to, selection and shaping of, real-world environments relevant to one's life (Sternberg, 1984, p. 45).*

According to these principles, Sternberg developed a theory of intelligence with three components or sub-theories (Figure 2.3):

1. Analytical (componential)
2. Creative (experiential)
3. Practical (contextual) (Stenberg, 1997)

Figure 2.3: Sternberg's concept of successful intelligence

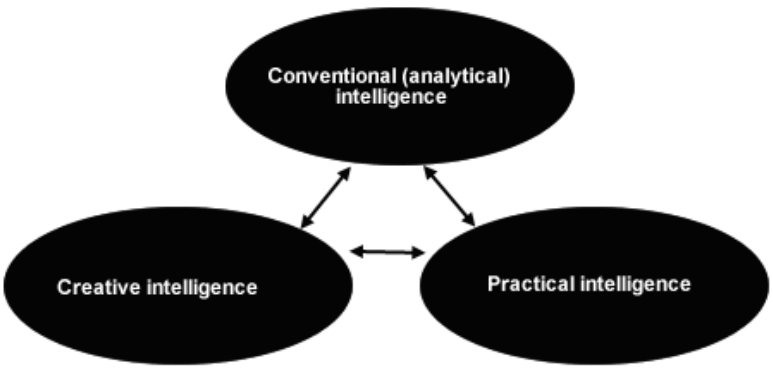


Table 2.3: An Overview of Sternberg's Triarchic Theory of Intelligence

Triarchic Theory **(Neill, 2004)**		
Componential sub theory **(Analytical)**	Experiential **(Creative)**	Contextual Subtheory **(Practical)**
Meta-components Performance Knowledge Acquisition	Novelty Automation	Adaptation Selection Shaping

Sternberg's earlier componential approach to reasoning is what gave rise to his current theory. Sternberg believes that real-life success is a direct translation of the proper definition and measurement of intelligence. The various theories of intelligence have been synthesized in Stenberg's Triarchic theory.

> *These intelligences are not divorced from performance in the disciplines we include in our school curriculum, but provide a basis for consideration of the different ways in which children (and ultimately adults) are best able to know, understand, and finally to express themselves in the disciplines (Callahan, 2005 p1).*

However, there are critics who claim that Sternberg's theory is difficult to use in education, in particular in the case of assessment for practical abilities and creativity. More recently Sternberg (2004) has stressed that:

- Giftedness involves more than IQ
- Giftedness has now cognitive (e.g. motivationally driven) components as well as cognitive ones.
- Environment is crucial in terms of whether potential for gifted performance will be realised
- Giftedness is not a single thing: there are multiple forms of giftedness. Hence, one-size-fits-all assessment or programmes are likely to be too narrow.

The most recent contribution from Sternberg (2009) offers his WICs model (Wisdom, Intelligence, Creativity synthesised) where each of the three should be contribute to the development of giftedness. Sternberg stresses that all the three strands in the model are modifiable and can be developed. He believes that a person is not born gifted, but develops expertise and competence when genes interact with the environment.

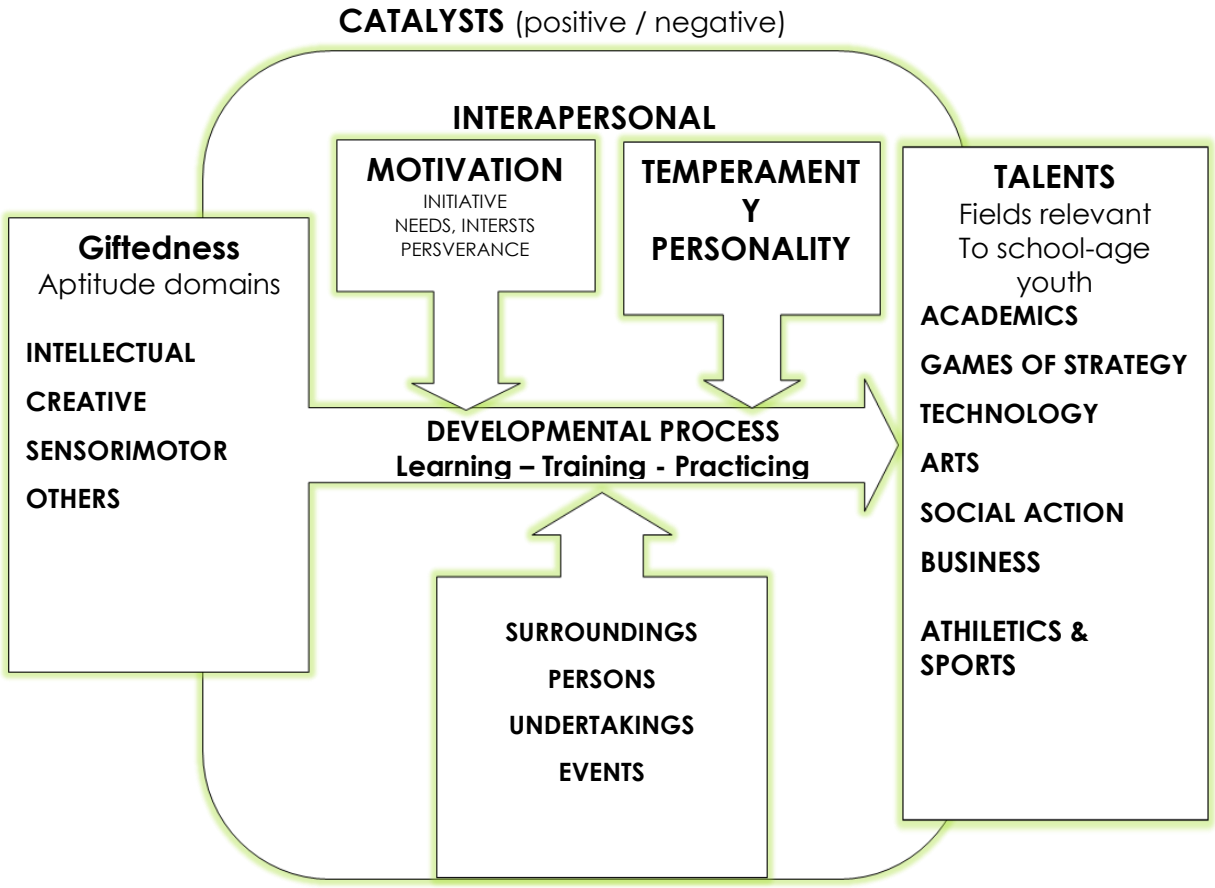
2.3.2.5 Francoys Gagne's Differentiated Model of Giftedness and Talent

Gagne's (2009) proposes his Differentiated Model of Giftedness and Talent (DMGT) which he describes as a talent development theory whereby outstanding natural abilities or gifts, are progressively transformed into outstanding systematically developed skills and knowledge, which define expertise or talent in a specific occupational field. Gagne describes giftedness as the possession and use of untrained and spontaneously expressed outstanding natural abilities or aptitude or gifts in at least one ability domain to a degree that places an individual at least among the top 10% of age peers. 'Talent' in his model describes the outstanding mastery of systematically developed competencies-knowledge and skills in at least one field of human activity to a degree which places an individual at least among the top 10% of 'learning peers'.

Gagne's diagram (figure 2.4) stipulates different types or levels of learning, which has distinct qualities in each one of them (Mohan, 2007). When examining or studying a child, there are diverse internal and external conditions needed to be comprehended. These are the 5 major categories of learning:

a. Verbal information – understanding 'what' and the learning facts, names and descriptions.
b. Intellectual skills – knowing 'how' and symbols.
c. Cognitive strategies – internally processed information and thinking skills used in cognitive activities.
d. Motor skills – covers abilities in laboratory work, driving or machine interaction.
e. Attitudes – internal states relating to the behaviour pattern.

Figure 2.4: Gagne's 5 Aptitude Domains

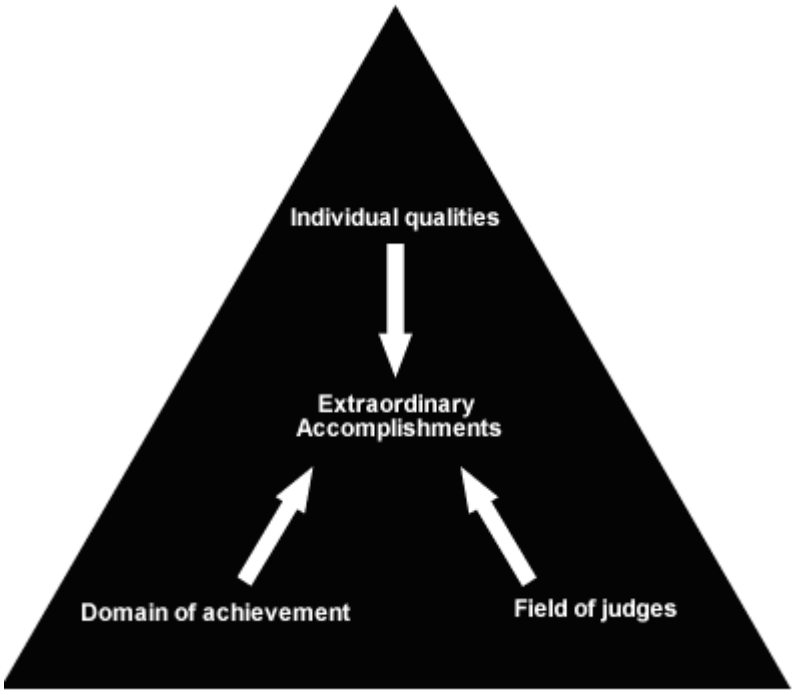


In order to measure these natural abilities in a child, they can be observed within the course of their schooling. For example, intellectual abilities are assessed through reading skills, conversing in foreign languages or solving new mathematical concepts, while the creative abilities are graded through ability to answer equations and create an original work in science, literature and art, as well as the physical abilities can be evaluated through an active participation in sport, music or woodwork, while the social abilities are known during a child's interactions with his/her classmates, teachers, and parents. According to Gagne, talents progressively emerge from the transformation of high aptitude into the well trained skill characteristics in a field of human ability. For the development of talent, however, other factors such as motivation, temperament, personality and environmental factors play important roles.

2.3.2.6 Mihaly Csikszentmihalyi's perspective on giftedness

Another rich and contextualized conceptualization of giftedness is Mihaly Csikszentmihalyi's view of giftedness in terms of creativity and extraordinariness (Figure 2.5). For Csikszentmihalyi (1996), it is necessary to look wider than the individual's brain, mind or personality in order to understand her apparent gifts or talents. It is the interaction between three core elements that is important: the individual, with her gifts, talents, goals and values; the domain or discipline in which the individual is working; and the field of peers, teachers, examiners, experts, etc (Hymer & Michel, 2002, p15).

Figure 2.5: Mihaly Csikszentmihalyi's system view of creativity and extraordinariness.



A person may be gifted in one domain and not another.

2.3.2.7 Domain specific giftedness

In previous sections, conceptions of intelligence were discussed either based on the 'g' factor or on a more broadened view of intelligence. Another perspective on ability or giftedness is provided by Gardner (1983) and discussed earlier is the view that giftedness is domain specific. If giftedness is conceptualised as domain specific then displays of giftedness would be within specific domains at high levels. Feldman and Goldsmith (1991) states that research on prodigies fits in well into this orientation, as they are individuals

with extra-ordinary abilities in a specific area at a young age. Csikszentmihalyi and Wolfe, (2000) also maintains that giftedness is culturally bound and field-dependant.

Van Tassel-Baska (2005) has this to say about domain specific ability;

> *"Giftedness is the manifestation of general intelligence in a specific domain of human functioning at a level significantly beyond the norm such as to show promise for an original contribution to a field of endeavour." (p359)*

Practice and hard work play a significant role in people who reach the 'heights of performance' (Ochse, 1990; Ericsson, 1996). Real-world productive and creative giftedness requires applications to fields and years spent in a career honing specific skills for particularised work (Van Tassel-Baska, 2005).

2.4 Other Identification methods

A three-part assessment process is conducted by school psychologists, in order to identify gifted children, according to Braden (1995):

> *The first phase of identifying gifted children usually relies on a nomination process, in which children suspected of having exceptional talent are nominated by parents or teachers for additional assessment. In some settings, however, a group test date may be used to identify potentially academically talented and gifted students. Individuals who pass the screening process are moved to the second stage of assessment, in which they are given group tests of intelligence. Individuals with high group tests scores (typically two or more standard deviations above the mean) move to the third phase of assessment, in which they may be given a test battery by the school psychologist (Braden, 1995, p 627).*

Often, the first sources of identification are parents, teachers and school counsellors. In order to support children from culturally diverse backgrounds during the process of identification, attitudes towards these students may need to be adjusted and knowledge about giftedness must be gained. In an effort to help the parents of gifted children, Karnes (1984) assisted them in helping their children to develop thinking skills and also to give parents greater insight into what giftedness meant. Within a pre-school group setting she was successful in identifying gifted student behaviour. A booklet was developed with games and activities to enhance areas important in determining giftedness, including creativity, leadership, problem-solving, classification, and language development. Specific

directions for working with the children were given to parents, when they met in a series of nightly meetings in order to study these techniques. (Baldwin, 2005).

According to some experts, (Baldwin, 2005) when dealing with students from ethnic groups, teachers and school counsellors need to have not only knowledge about giftedness but also a non-prejudiced attitude. Frequently, it may be said that educational professionals, blinded by their misguided perceptions about students, particularly males, are prevented from seeing any gifted traits that a particular student might exhibit. This is despite the fact that some non-conventional behaviour, such as boisterous activities and other attention-seeking behaviour, are simply designed to shock. The following ideas that can help design protocols and assess students of colour were devised by educational scholars such as Scott, Deuel, Jean-Francois, and Urbano (1996):

> *1. Through kindergarten screening programmes ethnic-minority gifted students can be located.*
>
> *2. Fluency is encouraged by the carrying out of the open-ended tasks. These have proved to be the most promising.*
>
> *3. Verbal tasks that use familiar concepts and vocabulary do not necessarily discriminate against young ethnic minority gifted students (Baldwin, 2005).*

An overview of commonly used methods of identification

Based on a review of international research, Freeman (1998) lists the most commonly used methods for the identification of gifted students.

2.4.1 Using Tests

Using IQ tests to measure ability involves determining the level of ability using an IQ score above which a child is referred to as gifted. In the most commonly used Wechsler test, a score of 130 is used as a cut-off point. Although the use of IQ tests is contested in terms of their limitations - cultural bias and its inability to measure subject specific skills and multiple talents – it is still used in many countries. Freeman (1998) points out that in spite of its limits in measuring all round ability, it has been proved many times as a valid and reliable measure of potential for academic ability and school achievement. Terman's study 1916 is the first operational attempt to identify gifted students, whom he called genius students (Alsurur, 2003).

There are two main types of intelligence test:

1. Individual intelligence tests.
2. Group intelligence tests.

The first intelligence tests are given to one person at a time and the Group Intelligence Tests are supplied to a number of people during a period; the second one is commonly used, to see if the students should move to a complete gifted assessment (Hassanan, 1997). After the 1960s, argument arose over the use of intelligence tests for children, because it was thought it was unfair for children from different cultural backgrounds and minorities in many countries. As the argument continues, the tests are still in use. However, at this time it is much less likely to be used as the only means of identifying intellectual performance and the potential of gifted children in view of its perceived weaknesses (Newland, 2007). A further weakness is identified by Emmanouilidou (2007):

> *Another characteristic of intelligence testing is that it is fundamentally normative and related to a standardisation that makes it difficult to include the very few exceptional children (Emmanouilidou, 2007, p.107).*

The most important tests are the Stanford-Binet IQ test (1905) and the Wechsler Individual Achievement Test (1981), which are the most common individual IQ tests; also, they are the most generally used by schools. Also the Woodcock-Johnson cognitive test may be used, related to the individual achievement test. (Carolyn, 2006)

1977 saw the development and codification of The Stanford-Binet Intelligence Scale, Wechsler Intelligence Scale for Children and Torrance Tests of Creative Thinking to fit with Arabic environmental structures In Jordan.

According to Webster (1998), different tests give slightly different scores:

- IQ 120: This category consists of 10% of the student population.
- IQ 135: This group is the top 2% of the population and consist of the ‘very able’ or ‘gifted children’.
- IQ 160+: This is a very rare ‘exceptionally able’ group and represents a very small minority (1 in 10,000 students roughly).

2.4.2 Teacher recommendation

Koshy (1997) maintains that teacher assessment should be a favoured and effective option as teachers, along with the parents, are in the best possible position to make judgements on children's abilities. However, Koshy advises caution in that if the opportunities are not provided for the children, it would be difficult to make an assessment of their abilities. Freeman (1998) raises several points which may affect teachers' accurate assessment of their children's abilities. For example, teachers' perceptions can vary. In Freeman's study in different cultures and in different countries the percentage of children identified by teachers as gifted varies. In Germany 3.5% of the children were identified as gifted, whereas in the USA it varied between 6% and 10% and in Indonesia 17.4 % of children were assessed as 'gifted'.

Freeman offers some practical observations that can reduce the risk of teacher recommendation and the biases that can affect their choices.

- *Teachers should use outcomes of particular tasks and not test scores; for smaller groups, discussions related to subject could be useful.*
- *Children's abilities may change over time.*
- *It is more helpful to rely on particular aptitudes that children may display, rather than a general perceived intelligence or positive attitude towards school work.*
- *Teachers need to interact personally with the student (e.g. discussions).*
- *If possible, an external observer may prove very helpful.*
- *Teachers should self-reflect and check any biases concerning social class, ethnicity, gender, disabilities, learning difficulties, etc.*
- *Indications for giftedness also include motivation and interest.*
- *Teachers are encouraged to use as many assessment methods as possible.*
- *Multiple sources of information are handy; however, group discussions can be dominated by strong characters.*
- *Out of school activities may give valuable information to the teacher.*
- *Direct consultancy with the pupils has essential value.(p.10)*

2.4.3 Checklists

Checklists, from both parents and teachers, are commonly used in the identification of gifted students. This is because checklists assist teachers and parents to enhance their awareness of the more able pupils, to organize their observations. According to Leyden (1985) although checklists can be a significant guide for teachers in assessing the abilities of the students, they may also be misleading and not always relate to individual issues, because checklists vary considerably and can be confusing and even socio-culturally exacted.

Whitmore (1985) gave a complete listing of observable giftedness characteristics of intellectual ability. Whitmore believes that intellectual giftedness is manifested by the ease and speed in the growth of the cognitive behaviour, which create outcomes that are excellent both in quantity and quality. She explains these characteristics are:

> *Derived from the principal categories of intelligent behaviour which distinguish human beings from other animals (p.96).*

In 1998 Webster made a checklist which consists of two parts. The first part asks the teacher to identify particular abilities such as: verbal communication, written communication, reading ability, abilities and interests in particular subjects (open to specification by the teacher), general knowledge, memory for detail, observation, original thinking, inquisitiveness, problem-solving and speed of thought, imagination, task commitment/concentration, independent learning and ability to relate to peer group. The teacher is asked to rate these abilities as poor, weak, average, good, or excellent.

The second part describes some other characteristics of gifted students such as: noticing, curiosity, good reader, articulate and fluent, interested in what older children are usually interested in, communication with adults, insight/perception, wide range of interests, enjoyment of order and logic, quick worker, good memory, sensitivity, sense of fairness, imagination and sense of humour.

However, Freeman (1998) suggests a different set of criteria which could be used in a checklist:

- Knowledge and excellent memory use of information, with self-regulation- they know how they learn best and can monitor their learning.
- Thinking fast to solve problems and get to the essential information more quickly.
- Flexibility of thinking and alternative solutions to learning and problem-solving.

- Speed of thought – may take longer to plan but then make decisions quickly
- Having exceptional ability to concentrate for long periods.
- Early literacy.

2.4.4 Parental nomination

Parents are the individuals who know their children better than teachers or the Headteacher, because parents can see their children in various contexts, including social situations. They also have the opportunity to observe their children's development from their birth. Nevertheless, parents could be biased and may overemphasize their children's achievement for different reasons (Zimmerman & Clark, 2004). Seon-Young and Olszewski-Kubilius (2006) point out one benefit of parent nomination in that it allows many children to go through gifted search programmes' testing who would not otherwise be recognized by schools or teachers, and most of the students then have high results which qualify them for input in the programmes.

Emmanouilidou (2007) believes that parents should play a part in the identification of gifted students from informal observations and through communication with the school staff and teachers. However, she recommends that the parents need support with professional checklists to document their observations in a transferable, comparable and quantifiable way. Smutney (1995) suggests that parents should bring to schools any important projects which the child has made at home such as photographs, voice and visual of performances, etc. Emmanouilidou (2007) has the following advice:

> *Parents are not always able to evaluate their child's achievements in comparison with his/her age group. Giftedness is exhibited in relation to the average performance of the child's age, so if there is no average standard for comparison, the parents can only observe behaviours but not estimate the levels of high ability (p.109).*

To conclude this section, an attempt is made to review the strengths and limitations of the methods of identification commonly recommended for teachers to identify gifted children in the UK (DfES, 2007), which reflect most of the methods discussed above.

Table 2.4: Identification Methods-Gifted pupils, a review of their strengths and limitations

Method	Strengths	Limitations
National Curriculum based Tests	Judged against school curriculum. Can measure progress over time. Easily transferable data across schools and LEAs. Based on clear criteria.	High levels of achievement dependent on quality of educational experience, rather than ability. Units of measurement can be too broad, particularly for assessing in detail the youngest children.
Baseline	Breadth of assessment issues. Can involve qualitative and quantitative data.	Can vary across the country. Some schemes lack experience.
Class Teacher Nomination	Offers opportunity to recognise pupils' responses to teaching, levels of initiative and interest, lateral thinking and extent of problem solving. Uses detailed knowledge of class teacher, makes use of teacher's ongoing assessments of pupils and is closely linked to provision.	Can be very subjective if not undertaken against agreed criteria. Dependent on access to experienced class teacher with confident, challenging and flexible teaching style and therefore can be disrupted by teacher changes or supply issues.
Classroom Observation	Can help confirm other assessments through systematic data collection based on agreed criteria. Assess child in familiar context doing familiar tasks.	Time consuming if done in addition to normal classroom practice. Can be subjective if not undertaken rigorously and on a series of occasions (including variety of teaching contexts).
Examination of Pupil Work	Good measure of recorded outcomes. Helps refine teacher expectations through analysis of high quality work. Can be useful when done in clusters.	Can be subjective if not undertaken rigorously. More easily measures achievement than potential. Reliant on access to good range of learning opportunities and high teacher expectation. Restricts range of potential measured to that recordable,

		limiting especially for youngest children.
Subject Specific Checklists	Can allow children with specific learning disabilities (e.g. dyslexic children) opportunity to demonstrate ability in other subject area. Can be useful in identifying children with high ability in specific area. Can draw on strengths of specialist subject teacher and contribute to curriculum design	Extensive checklists can be time consuming and unwieldy to administer. Checklists cannot be relevant for each individual.
Generic Checklists	Easily accessible. Simple to handle.	Can run the risk of creating stereotypes. Too general to be useful in curriculum terms. Validity remains questionable.
Reading Tests	Easy to administer. Reading competence can give useful indication of future performance. Most schools have access to some age standardised score which allows for "Summer Born" factor to be considered.	Reading is a skill rather than an ability, and high scores on a reading test are not a reliable indicator of cognitive ability.
Educational Psychologists	Invaluable in identifying high ability linked to complex issues e.g. areas of SEN.	Time consuming and expensive. Unnecessary for most gifted pupils.
Parents and Peers	Intimate knowledge of the individual. Can take account of performance outside school environment.	Subjective, and difficult to give clear criteria. Younger children would find it difficult and possibly divisive to judge peers.

2.5 Disadvantaged gifted learners

In the US context, Van Tassel-Baska (1998) maintains that one of the most neglected groups amongst gifted students is the bright student from a disadvantaged background and that the under-representation of students from minority ethnic groups and lower social

classes in enrichments programmes needs to be addressed. In England, Lucey (2003) found that students from middle classes tended to dominate the membership of gifted and talented cohorts of students created in response to the UK Government's (DfEE, 1999) requirement that each secondary school (11-16 age group) select 10% of their intake and form a gifted and talented group. Identifying the gifts and talents of students from poorer backgrounds where parents may not be able to support their children's education at home or because their schools are located in difficult areas where there are teacher shortages may be a global problem. Based on an evidence base, the need for considering practices designed to improve academic opportunities of promising learners from lower income families is highlighted by Robinson *et al* (2006). The authors emphasize the need for programmes and services that are of sufficient intensity and duration and which take into account family circumstances in order to increase achievement and ultimately leverage these learners into a successful learning trajectory. The reassuring message from Robinson *et al* is, that although these students confront grave challenges, they also have the resilience and the ability to be successful

2.6 Provision for Gifted Students

In recent times there has been a body of literature which discusses the need for a shift from simply identifying gifted children to placing the emphasis on educational provision. Treffinger and Feldhusen (1996), who have been involved in research in gifted education in the USA where most of the major developments have taken place in the past 3 decades, highlight the need for considering the learning context as they describe the use of the 'blanket term' gifted as indefensible.

2.6.1 The role of adults

The need for adult guidance as a crucial factor in developing the potential of gifted learners is based on Vygotsky's Zone of Proximal Development (ZPD) as being distinct from actual development. The idea that, with scaffolding and working with more knowledgeable adults, children can learn faster and develop new ideas is especially applicable to gifted children. When considering the context of the role of adults, Freeman (1998) highlights the need for developing teacher expertise in enhancing the learning experience of gifted children. She explains that faced with pupils who read voraciously and absorb information rapidly, ask questions, invent problems, provide creative solutions and cope with abstract ideas from a young age, some teachers may feel inadequate. Freeman cites the example in the USA where a survey (Hansen and Feldhusen, 1994) found that teachers who had received special training in teaching gifted children were more effective and in the UK a

study (Kerrya and Kerryb, 1997) showed differences in the attitudes and teaching strategies between teachers who had or not attended teacher training sessions.

2.6.2 Models of provision

Many models have been established, during recent decades, in making educational provision for gifted students. Coleman and Gallagher (1995) offer guidelines for provision, which include the implementation of a differentiated curriculum, a more rapid pace of education, range of service options, appropriate counselling and support and Schneider (2002) suggests:

> *These practices can be achieved through the use of a number of programming options, such as enrichment, differentiation, acceleration, curriculum compacting, alternative curriculum, extra-curricular activities, and personal development (p12).*

2.6.3 Enrichment models

This section focuses on models of Enrichment Programmes. Most countries, where gifted education has been in existence for at least two decades, use enrichment programmes in many schools. An Enrichment Model is the most widely used in gifted education and the one that has guided the majority of schools for gifted students around the world. The Ministry of Education in Saudi Arabia, where the present study is located, uses it in gifted programmes in schools more than any other model. According to Alsurur (2003), Enrichment Programmes are the most acceptable to the local communities because of low cost, ease of application and comprehensiveness in improving education.

Enrichment has been described as studying a topic at a greater than usual depth, in greater detail and with greater understanding than is standard in the curriculum. A high quality programme for the gifted would, therefore, utilize a variety of methods in order to achieve enrichment (Schneider 2002).

According to Pimm, Howley, Pendarvis and Davis, 'Enrichment' is defined as

> *Richer, more varied educational experiences, a curriculum that has been modified or added to in some way (cited in Schiever and Maker, 1991 p99).*

Schiever & Maker (2003, p164) describe the goal of an enrichment programme as:

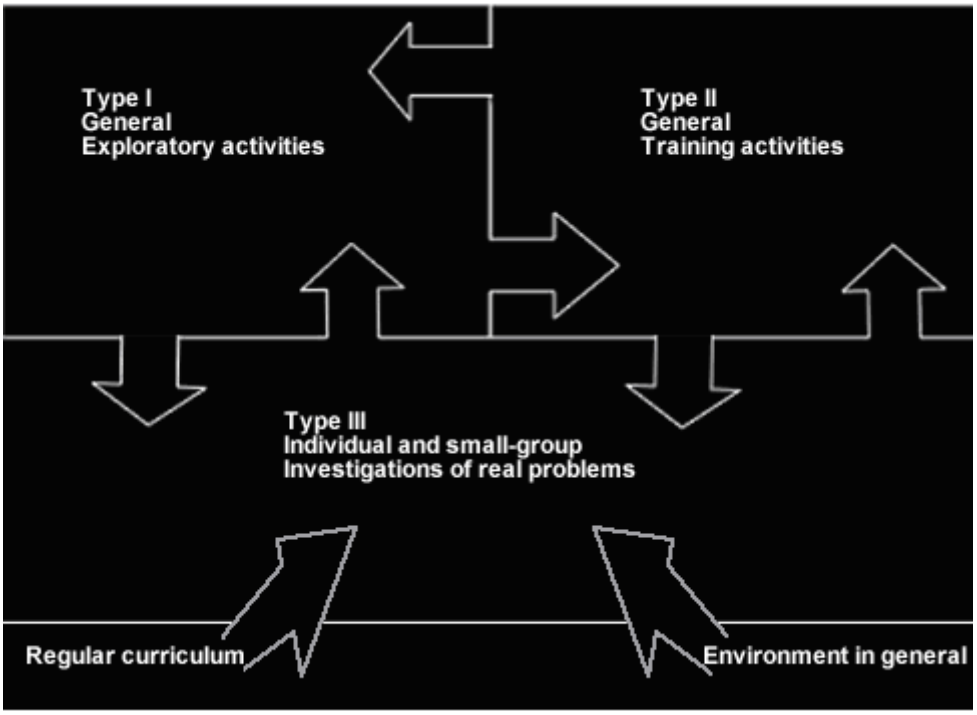
to offer students a curriculum that is greater in depth or breadth than that generally provided; that is, to challenge, and after-school or Saturday classes, resource rooms, additions to regular classroom curriculum, or special interest clubs may be used as ways to implement an enrichment programme.

In the following sections, a number of well known models of enrichment are presented, which mostly originated in the USA.

2.6.4 Renzulli's Enrichment Triad Model

Joseph Renzulli is one of the most influential theorists on gifted programme delivery today, whose work began in 1977. He proposed his Three Ring Model of identification - above average ability, creativity and task commitment forming a triad of attributes contributing to giftedness-which was the focus of his early work (Hearne & Maurer, 2000).

Figure 2.6: Renzulli's Enrichment Triad model



Three components describe the organizational and service delivery model developed by Renzulli. Type I enrichment (general exploratory experiences), Type II enrichment (group training activities), and Type III enrichment (individual and small group investigations of real problems) (Maker & Shiever, 2005).

Three types of enrichment constitute the enrichment triad model:

Type I - General Interest/Exploratory activities:

The major component of this type is that it 'capitalizes on differences in children's interests and learning styles' (Renzulli, 1994, p.212). Activities are pre-planned to provide students with many wide-ranging experiences, such as excursions to clubs and other places of interest, talks by guest speakers, brainstorming sessions, the development of new hobbies, and other events that are outside the normal curriculum.

Type II - Group Training Activities / Skills Development:

The development of thinking and feeling processes are the focus of these activities. The students are involved in designing, experimenting, comparing, analyzing, recording and classifying information through the application of creative, critical thinking skills and practical problem-solving (Olenchak & Renzulli, 2004).

Type III - Individual and Small Group Investigation of Real Problems:

Having worked through Type I and II activities, the students can now apply the knowledge and the skills they have developed to the Type III activities. Through working on specific areas of study, they become investigators of real problems and work towards putting together a presentation to a real audience. Activities include debating, researching, surveying or producing a book, a presentation or a play; it may even include writing a journal article. These types of activities include the following goals: providing the opportunity to apply interests, applying gained knowledge and skills to carry out a debate, a presentation or solution of a particular problem (Olenchak & Renzulli, 2004).

> *A significant feature of Renzulli's Enrichment Triad model is that all students can work at the first two levels, and the activities generated within these levels support the third level. Type III activities are more appropriate for gifted students, as they allow for the generation of creativity (DET, web, 2007).*

Renzulli's model gives children opportunities to gain knowledge and awareness of their own cognitive processes through the strong metacognitive component within the model. Such cognitive awareness becomes a powerful factor influencing academic self-concept according to Mendaglio and Pyryt (2003). The Triad Model has been proposed as an effective model which continues to be used around the world. For example, in the United States alone it is used in over 2000 schools (Carber & Reis, 2004).

2.6.5 The Purdue Three-Stage Enrichment Model (1978)

This model was developed in order to provide a foundation for the enrichment of gifted elementary students. It is both a programme model and a curriculum for gifted students (Feldhusen & Kolloff, 1986). This model is known for supporting problem-solving skills and creative thinking for gifted students (Kolloff & Feldhusen, 1984).

Creative development, strengthening of convergent problem-solving, research skills and independent learning are all goals of this model. The three stages in the model are:

Stage I: In the development of divergent and convergent thinking skills the focus is on originality and elaboration, decision-making predictions, fluency, flexibility and other related skills. This all helps the teacher to develop exercises in creative, logical and critical thinking.

Stage II: In the development of creative problem-solving skills, students are provided with the opportunity to learn a variety of techniques and strategies which can be applied to any creative problem-solving process. Students are encouraged to learn and adopt creative thinking techniques.

Stage III: This allows for the development of independent study skills. It allows an individual student to select a topic for investigation. Gifted students should focus on the definition and clarification of problems, the gathering of dates and the interpretation of findings as well as developing creative methods of obtaining results (Feldhusen & Kolloff, 1986).

2.6.6 Autonomous Learner Model

The Autonomous Learner Model was developed by Betts in 1985 in the USA. It is another model of enrichment, which supports self-advocacy and has also been modified for learning disabilities of high ability (Brody & Mills, 1997). A definition of an Autonomous Learner is

> *One who solves problems or develops new ideas through a combination of divergent and convergent thinking and functions with minimal external guidance in selected areas of endeavour (Betts and Knapp, 1981, p.45)*

The Autonomous Learner Model was devised in the USA by Professor George Betts and Jolene Kercher, in order to promote self-directed learning in gifted and talented students. The main objectives of the model are to:

1. *Develop self-concept and positive self-esteem.*
2. *Comprehend one's abilities in relation to self and society.*
3. *Develop skills to interact effectively with peers, siblings, parents, and other adults.*
4. *Increase knowledge in a variety of areas and develop critical and creative thinking skills.*
5. *Develop decision-making and problem-solving skills.*
6. *Integrate activities which facilitate the cognitive, emotional, social, and physical development of the individual.*
7. *Develop individual passion area(s) of learning.*
8. *Demonstrate responsibility for self-learning in and out of the school setting.*
9. *Ultimately become responsible, creative, independent, life-long learners (Betts & Kercher, 1999).*

Through the model's special design, students move towards the role of learners, controlling the learning process while the teacher assumes the role of facilitator. If a flexible approach is applied, the model may be used in a regular classroom (regardless of the various different phases of development), as well as in small group settings such as an individual course or in cross curricula areas of education.

Five major dimensions form the model:

One – Orientation

Four areas are contained in this dimension:

- *Understanding, creativity, intelligence, talent and giftedness.*
- *Personal/self development.*
- *Group building activities.*
- *Programmes and activities for schools (Betts, 2003).*

Two - Individual Development

Six specific areas are contained in this dimension:

- *Technology.*
- *Productivity.*
- *Inter/intra personal.*
- *Learning skills.*
- *College and career involvement.*
- *Organizational skills (Betts, 2003).*

Three - Enrichment

The enrichment dimension's main purpose is to introduce learners to the concept of learner-based content. This entails going beyond teacher- based content and encourages learners to emulate the role of teachers in their daily task of developing their own content, processes and products. Five specific areas are contained in this dimension:

- *Adventure trips.*
- *Exploration.*
- *Investigation.*
- *Cultural activities.*
- *Service (Betts, 2003).*

Four - Seminars

Seminars are facilitated by teachers and developed by the learners themselves. Five main areas are focused on in these seminars:

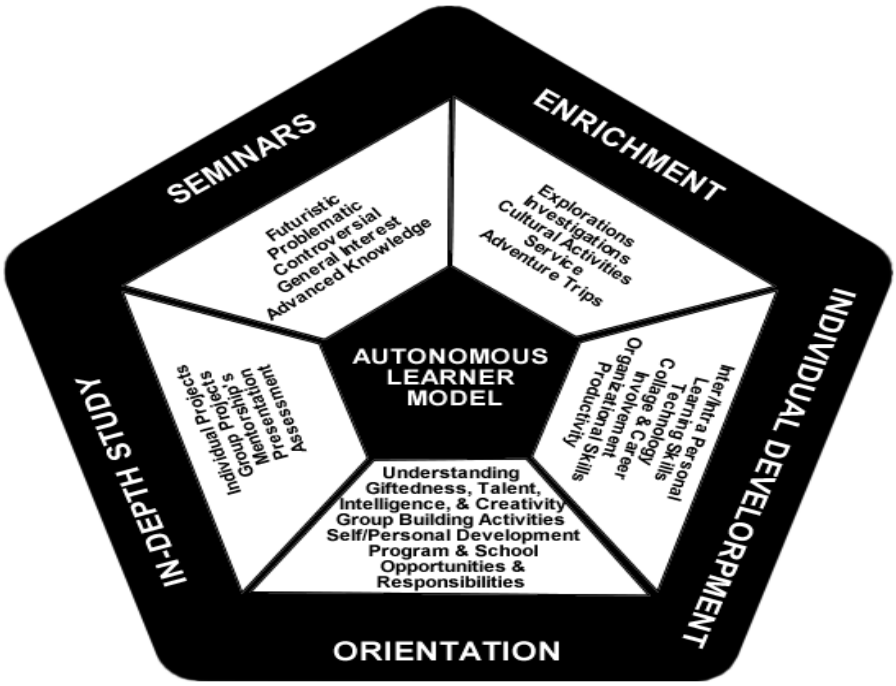
- *Controversial.*
- *General interest.*
- *Futuristic.*
- *Advanced knowledge.*
- *Problematic (Betts & Kercher, 1999).*

Five - In-Depth Study

Most teachers are aware, to some degree, of the concepts introduced by Torrance (1983) but have been unable to systematically implement them. The focus of this model is on:

- *Individual projects.*
- *Group projects.*
- *Mentorship.*
- *Presentations.*
- *Assessment of self and others (Betts & Kercher, 1999).*

Figure 2.7: A diagrammatic representation of the Autonomous Learner Model (1999 by Betts & Kercher)



2.6.7 Future Problem Solving Model (FPS)

This model was developed over thirty years ago by Alexander Osborne and Sydney Parnes, and is promoted through Osborne's creative education foundation in Buffallo, New York

FPS is taught by the future Problem Solvers organization and practised by teams of school children throughout the world (Webne-Behrman, 1998, p. 57).

The process flows logically through the six steps of:

1. *Objective (Mess) Finding – Identifying the challenge, goal and future direction.*
2. *Fact Finding - Observing the problem and collecting data about the problem as objectively as possible.*
3. *Problem Solving – The various parts of the problem are examined in order to identify the major part, so as to state the problem in an open-ended way.*
4. *Idea Finding - Brainstorming so as to generate as many ideas as possible regarding the problem.*
5. *Solution Finding – The solution that is the most appropriate needs to be identified. Specific information needs to be developed and selected in order to evaluate the alternative solution.*
6. *Acceptance Finding - A plan of action needs to be created (Maker, 1986).*

The process, unlike alternative problem-solving methods, emphasises the need to reserve judgment on possible solutions and ideas until a final decision is reached. This ensures that the flow of ideas in the third step is uninterrupted and all possible solutions are accepted. The teacher plays an important role in this stage, especially in making students feel at ease to make suggestions. In these brainstorming sessions it is the quality of the ideas and not the quantity that has been sought (Maker, 1986).

2.7 Organisational Structures for Provision

A range of organizational structures and strategies are also employed to enhance provision for gifted students and one of the ways in which it is achieved is through the process of acceleration.

2.7.1 Acceleration

Acceleration is often described as different to Enrichment. The Acceleration Model offers gifted students, or groups of learners, the opportunity to study with older children (grade skipping) and may also involve a total group undertaking a course of study usually used

with older students. According to Koshy (2002), the term ‘acceleration’ is used to signify several things, but there is always new content taught. For example, early entry into school could be one type of acceleration.

Kulik and Kulik (1984) considered twenty-six studies, which focused on controlling the effects of acceleration. They concluded that the thirteen searches [that used same-age controls] were clear: acceleration causes achievement. According to Jasaitis, acceleration can be achieved in a number of different ways including:

- *Early entry to school.*
- *Grade skipping or "double promotion".*
- *Ungraded classrooms where students of varying ages are grouped together and the curriculum is based on individual mastery rates rather than the age of the student.*
- *Curriculum compacting, which involves skipping material that the student has already mastered.*
- *Grade telescoping which involves completing a programme that usually requires a fixed number of years to finish in less than the usual time.*
- *Concurrent enrolment, enabling a child to attend more than one school at a time.*
- *Subject acceleration, which involves offering the student an advanced curriculum in a single subject.*
- *Advanced placement classes.*
- *Classes taught at an accelerated rate or at a higher level of difficulty which enable a student to gain credit for completing a curriculum usually taught in subsequent years.*
- *Mentorship, individual instruction at an advanced level in a single subject offered by an expert in that subject.*
- *Credit by examination.*
- *Early admission to college) Jasaitis, 1994, p 6-7 .*

2.7.2 Differentiation

The process of Differentiation is used to modify the curriculum to accommodate gifted students with their specific needs. Curriculum differentiation is a broad term referring to the need to tailor teaching environments and practices to create appropriately different

learning experiences for different students. Keirouz (1993) suggests typical procedures for gifted and talented students include:

- Deleting already mastered material from the existing curriculum,
- adding new content, process, or product expectations to the existing curriculum,
- extending the existing curriculum to provide enrichment activities,
- providing course work for able students at an earlier age than usual, and,
- writing new units or courses that meet the needs of gifted students.

White (2006) point out the definition of the differentiation approach in the literature involves:

> *Recognizing individual differences and trying to find institutional strategies which take account of them (p.17)*

In various studies, differentiation is a general model supporting educational programmes which satisfy the diversity of students' needs similar to enrichment and acceleration (Al-alola, 2004).

Maker's model (1982) of a differentiated curriculum suggests that a curriculum needs to be differentiated in terms of:

- *Learning environment.*
- *Content modification.*
- *Process modification.*
- *Product modification.*

2.7.3 Curriculum Compacting

According to Baum *et al* (1998) one way of differentiating the curriculum for gifted learners is by Curriculum Compacting. The authors maintain that in the talent development process, we need to find time for gifted students to pursue self –selected, interest –based enrichment activities for them to develop their individual talents. In order to create time for this, teachers need to modify instruction and activities which Renzulli and Reis (1993)

describe as Curriculum Compacting. The process involves eliminating previously mastered learning and replacing it with enrichment activities and learning of more advanced concepts.

2.8 Other relevant aspects pertinent to this study

2.8.1 Culturally situated giftedness

As Freeman (1998) explains, no conception of giftedness or talent works in a cultural vacuum. An international review of giftedness highlights a range of methods of identification of giftedness and provision for gifted students which reflects the cultural view points of the particular countries and cultures within which they are situated. In the UK itself, there are variations of conceptions of giftedness and talent as demonstrated in the recent research carried out by Koshy *et al* (2010). The level of ability or giftedness of a child may be perceived differently within the education system. For example, Freeman (2005) highlights the fact that in the same town, a child in a competitive-entry school may be seen as of only of moderate ability although he or she could be regarded as "gifted" in a nonselective school.

Freeman (2005) describes how different concepts and cultures can affect choice of the gifted and talented. The identification of gifted and talented children can be influenced in a variety of ways. Freeman raises a few issues to illustrate her point. The identification of "gifted" children can depend on what is being looked for, such as: tested academic excellence for formal education, innovation for business, solving puzzles as are provided for IQ tests or competitive athletics.

Parental attitudes and beliefs can also influence the way students manifest their giftedness and talent. Gender biases – two boys for every girl are chosen as gifted – also exist all over the world, from Britain to China (Freeman, 2005)

There are also differences in the way children are selected for gifted programmes in different cultures. IQ based and problem solving tests are used in places like Hong Kong and Taiwan. The World –class tests designed and produced by the Qualification and Curriculum authority (2001) for gifted students are now used in Hong Kong. In Saudi Arabia and other Arab countries there is a prominence of test-based selection of children for gifted programmes. In China, children's palaces provide non-selective, inexpensive, high level out-of-school education for youngsters who are prepared to put in the effort (Freeman, 2005)

2.8.2 Creativity and Giftedness

Renzulli (2005) is one of the experts who challenges the concept of intelligence or giftedness as a unitary measure. He maintains that giftedness can be viewed under two broad categories – Schoolhouse giftedness and Creative –Productive giftedness. Renzulli states that both types are important and there is usually an interaction between the two types. Schoolhouse giftedness is also referred to as test taking or lesson learning giftedness which can be measured by IQ and other type of tests. Creative-Productive giftedness cannot be measured through tests. Renzulli recommends the development of Creative-Productive giftedness and believes that more students can become creative in that their work and ideas will actually have an impact on others and cause change. Programmes which address this kind of creativity are qualitatively different from schooling.

Renzulli's Three ring conception of giftedness (1986) which was described earlier in this Chapter defines giftedness as an interaction of above average ability, task-commitment and creativity. Creativity is a complex concept to define. In MacKinnon's (1964) study a panel used the following criteria to assess creativity:

1. Originality of thinking and freshness of approaches to architectural problems.
2. Constructive ingenuity.
3. Ability to set aside established conventions and procedures when appropriate.

Sternberg, (2005) who has studied aspects of creativity extensively puts forward his WICS model of giftedness. WICS is an acronym standing for Wisdom, Intelligence and Creativity Synthesised. In the discussion of this model, Sternberg states that creativity is not an attribute limited to the historical greats – the Darwins, the Picassos and the Hemmingways and that it is something that anyone can use. Creative people, according to Sternberg, have to develop some particular characteristics, which include:

1. Redefining problems. Instead of being stuck in a box, redefining the problem means extricating oneself from the box.
2. Creative people question assumptions and eventually lead others to do the same.
3. Realising that creative ideas do not sell themselves. The ideas are often viewed with suspicion and distrust. So you need to convince others of the creative competence.

4. Recognising that knowledge is a double-edged sword. On the one hand one cannot be creative without knowledge. At the same time, those who have expert level knowledge can experience tunnel vision, narrow thinking and entrenchment.
5. Willingness to surmount obstacles. The creative thinker needs the fortitude to persevere.
6. Willingness to take risks. Creative people take sensible risks and produce ideas that others ultimately admire and respect and trend-setting.
7. Tolerance of ambiguity. A creative idea tends to come in bits and over time. However, the period in which the idea is developing tends to be uncomfortable. Without the ability to tolerate ambiguity many may jump to a less than optimal solution.
8. Finding what one loves to do. Teachers must help students find what excites them to unleash their students' best creative performances. People who truly excel creatively in a pursuit, whether vocational or avocational, almost always genuinely love what they do.

So it can be seen that creativity and giftedness are closely related. Even in every day conversation, one equates genius or masterpieces as the work of creative people. When asked, 800 school co-ordinators in the UK about their conceptions of giftedness, 71% reported that creative achievements were the best indications of giftedness (Balchin, 2009).

2.8.3 Gifted students from disadvantaged backgrounds

The issue of underachievement and lack of aspirations amongst students from disadvantaged backgrounds has been highlighted by academic researchers (Casey and Koshy, 2002; 2006). Although the declared aim of the gifted and talented initiative of the UK Government's *Excellence in Cities* initiative (DfEE, 1999) was to raise the profile of students from inner-city areas, as Lucey (2003) pointed out students from the middle classes tended to dominate the gifted and talented cohorts in British schools. The story has been much the same in the USA where special programmes have been provided for gifted students, for several decades. It has been asserted that one of the most neglected groups in amongst gifted and talented students is the bright student from a disadvantaged background and that the under-representation of students from minority ethnic groups and lower social classes in enrichment programmes needs to be addressed (Van Tassel-Baska, 1998). The message in the US federal report-*National Excellence, A case for developing America's talent* (Ross, 1993)- is that talented children who come from economically disadvantaged

homes or are members of minority groups are especially neglected and many of them will not realise their potential without some type of intervention.

Based on their studies in schools in disadvantaged urban areas in the UK Casey and Koshy (2006) argue that there is submerged talent among students from poorer backgrounds and special strategies for identification and specially designed intervention programme s are necessary to unlock the potential of these students. Similar concerns have also been highlighted in other countries. For example, Chaffey (2009) highlights that children from indigenous children are under-represented in gifted programmes in Australia and calls for specially designed methods for identification in order to address this problem.

2.9 Summary

This chapter provided an overview of the literature that involves the gifted education. It started with exploring the theories of intelligence, as some consider it as a basic characteristic of giftedness. Afterwards, the most fundamental theories of giftedness have been explored in depth. This was followed by the characteristics of gifted students, in order to clarify how their giftedness is manifested through their behaviour. The following section focused on the methods that are being used to identify gifted students. Furthermore, the educational provision models have been analysed.

The following chapter will start with the general aims that will be pursued and will analyse in depth the main questions, the research methods that will be followed, details about the sample to be used as well as the expected difficulties of the research process.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

CHAPTER 3

Research Design and Methodology

3.1 Introduction

The preceding chapter helped place the research in an academic context, but also hinted at some of the methodological uncertainties involved in a substantive study of provision for gifted children. This chapter provides a rationale and explication of the methods used in relation to the research questions concerned with the definition of giftedness, the identification of gifted students and support for them within Saudi Arabia. A brief review of the conceptual concerns that shaped the overall methodological approach is followed by consideration of basic ontological precepts. There follows a discussion of issues in relation to sampling and data collection. Subsequent discussion centres on the development of research instruments, pilot work, documents drawn upon, the fieldwork settings and approaches to analysis of the research data.

3.2 Theoretical concepts which informed the design of the research design

The main themes which arose from the extensive literature review and how these helped to produce the data collection are described in this section.

3.2.1 Conceptions, definitions and identification of giftedness

A range of conceptions of giftedness and talent are held by experts in the field. These ranged from a single dimensional view of ability to a broader view of human potential. The existence of multiple intelligences and the role of motivational creativity were discussed.

A range of methods used for identifying giftedness, many of which reflected the various conceptions held by those who were involved in both policy making and practice. The methods included test-based selection, using characteristics lists and teacher assessment. Biases were shown to exist in terms of gender and social class in that more boys and more students from educated and affluent families were selected for programmes. Whether children demonstrated all round abilities or domain specific aptitudes are also constantly debated issues.

A student questionnaire included questions which reflected on these themes; these were designed to gather information on the following:

- Family background, occupation of both father and mother.

- Size of family and number of siblings.
- The level of educational support given at home.
- Expectations from parents.
- Level of academic achievement.
- Work habits.
- Thoughts about school and subjects.
- Social activities.
- Students' views on being gifted and if they were aware if their membership of the "gifted" cohort.

The practitioners' questionnaire and interviews also sought information on how students were identified and what percentage of students were selected as "gifted". They were also asked about how long a policy on identification has been in place and if the policy has been revised.

3.2.2 Nature of provision through activities

Enrichment programmes are provided for gifted children in most countries, as presented in the literature review. Most of the models originated from the USA. The nature of the activities, provided for gifted students in Saudi Arabia was studied through questions relating to:

- The existence of in school and out of school activities, both academic and non-academic.
- The students' thoughts on the activities.
- The level of participation in the activities.

Practitioners were also asked about the existence of academic and non-academic activities for gifted children, as well as the nature of in-and out-of school activities.

3.2.3 Classroom provision

As the quality of what is offered in the classroom for gifted students is of vital importance, the literature review considered the nature of the curriculum offered, teaching styles and organisational structures. Whether there were opportunities for being creative was also of interest to the researcher. The content of questionnaires and interviews were designed in such a way that the researcher could evaluate the nature of gifted education within Saudi Arabia.

Students were specifically asked about:

- Their work habits.
- How they enjoyed school and activities.
- Teaching styles
- Learning styles, exploring aspects of enjoyment, asking questions and challenge.
- How they perceived learning and learning different subjects.

3.2.4 Policy issues, training and quality

The researcher felt it was important to explore issues of policy and the level of involvement of the practitioners in providing good quality education for gifted students. Information was gathered on the following aspects which were to be analysed and reflected on, in order the answer the research questions. Practitioners were asked about:

- Their level of their involvement in gifted education policies.
- Communication systems between themselves and officials.
- Their understanding of issues relating to aspects of giftedness.
- The level of training they received.
- The nature of special programmes and special schools.
- The role of gifted centres.
- The role of social workers.
- Their general view of gifted education in the country.

3.3 Epistemological basis of the research

The research was informed by two broad, not always congruous, requirements that had to be considered in the design and conduct of the investigation. As a professional educator I was sponsored by my government in the expectation that the research would, at least in part, contribute to policy and practice in the educational provision and support for gifted students in Saudi Arabia. But as an academic researcher it was necessary to adopt a more reflective and critical approach to data collection and interpretation of the findings - an approach that does not necessarily lead directly to applicable results. A balance thus had to be struck between an empiricist focus, based upon describing and evaluating the utility of emerging policy and practice in the provision for gifted children and - on the other hand - remaining sensitive to how cultural and sociological contexts might not only shape emergent findings but also the design and conduct of the research itself.

Accordingly, from an epistemological perspective my positioning in the research tended to reflect a pragmatic, critical realism. This broad approach - often linked to Bhaskar (1989) and Harré (1970) - reflects three broad characteristics of relevance to the research described here. First, as McEvoy and Richards (2003) note, critical realism acknowledges the potential utility of interpretivist (or even relativist) approaches to understanding the views, motivations and behaviours of research participants. But, significantly, this does not discount the reality of parameters, structures and enforceable prescriptions in the real world. Research such as that described here cannot focus solely on the perceptions and interpretations of research subjects but, instead, has to relate these findings to the reality of existing structures of control and intercession (in this case the cultural, historical and systemic characteristics of educational policy governance and educational provision in Saudi Arabia). This is reflected in a second self-evident but fundamental characteristic. A critical realist perspective accepts that there may exist different domains or levels of perception and action, such as the fields of national policy formulation, the shaping of educational provision at a regional or institutional level and actual practices in the delivery of such provision. Understanding how diverse domains of intent and behaviour interact can inform a broader understanding of how the reality of policy and practice is constituted and contested in fields such as education. This relates to a third premise. The parameters and structures within which individuals act may be challenged, subverted or indeed maintained by these actors. In other words, we have to balance an understanding of official depictions of provision for gifted students in policy pronouncements and government interventions with the realities reported by individuals operating at less rarefied levels (McEvoy and Richards 2003: 412-413). These three characteristics offered a broad epistemological foundation and rationale for the application of a mixed method approach to the design, conduct and analysis of the research.

The synthesis of such qualitative approaches with a more quantitative dimension should be shaped by five factors - the research problem, the training and experience of the researcher, the psychological attributes of the researcher, the focus of the study and the needs of the audience (Nassar, 2001). Accordingly, I consulted researchers who had conducted similar projects in order to reach a view in relation to these factors. The need for generalisable findings pointed, as noted, to the need for quantitative methods but could not include the complex nature of key concepts such as giftedness and educational enrichment. The research design thus had to be underpinned by a mixture of methods – incorporating both quantitative and qualitative methods. The former consisting of questionnaires, whereas the latter consisted of interviews. As stated by Creswell (2003), that with the development and

perceived legitimacy of both qualitative and quantitative research, this form of data collection, although relatively new, is nevertheless expanding.

The purpose of incorporating a mixed method is to allow for the expansion of an understanding from one method to another, so as to converge towards or confirm findings from different and varied sources (Tashakkori and Teddlie, 2003). This approach is not without difficulties. Most obviously, the researcher has to be versed in the relevant methods. And data collection and analysis may become more complex and take longer than would otherwise be the case. Accordingly, when designing the study, the researcher needs to convey clearly the intent of mixed methods research and its applications. Procedures then involve identifying the type of mixed methods strategy of inquiry - the data collection and analysis approaches, the researchers' role and the overall structure (Creswell *et al*, 2003). So, in the case of this research, the two groups involved - those students in the gifted programme and the staff working in the Ministry of Education specifically tied to it – both had questionnaires carried out in an independent and neutral manner, as will be outlined later when specifically discussing the methodology. This reflected the quantitative feature of the study. The staff also participated in a group interview – a research technique discussed in detail later in the chapter. During this task, the researcher positioned himself as a neutral investigator conducting a fair and responsible research in order to attain improvements and further developments in the Gifted Programme of the Kingdom's administration of the Ministry of Education. All the participants were made aware of this and the fact that all the feedback and responses obtained will be treated with the utmost confidentiality. The group interview, which will later be outlined, was carried out in the style of a debate; the researcher acted as a neutral chair – noting all responses without any expressions or indicating any inclinations to any specific views. Both of these methods were given equal weight and both given equal priority during the collection and analysis of the data. The data results were integrated at the stage of analysis, with theoretical perspectives of the data (e.g. the varying factors of the students and staff) given explicit consideration.

These criteria can be drawn from Cresswell *et al*'s (2003, p.211) outline of four criteria that feed into selecting a mixed method strategy of inquiry:

Table 3.1: A mixed method strategy

<table>
<tr><th>Implementation</th><th>Priority</th><th>Integration</th><th>Theoretical Perspective</th></tr>
<tr><td>No sequence

Concurrent</td><td>Equal</td><td>At Data Collection</td><td rowspan="3">Explicit</td></tr>
<tr><td>Sequential-Qualitative first</td><td rowspan="2">Qualitative</td><td>At Data Analysis</td></tr>
<tr><td rowspan="2">Sequential-Qualitative first</td><td rowspan="2">At Data Interpretation</td></tr>
<tr><td rowspan="2">Quantitative</td><td rowspan="2">Implicit</td></tr>
<tr><td>With Some

Combination</td></tr>
</table>

3.4 Sampling

The mixed method approach had implications for the sampling strategies employed in the research. At the most basic level, there are two broad approaches to sampling – random (probabilistic) and non-random (non-probabilistic). A random sample taken from a defined population or set of cases is premised on the idea that every individual or case therein has an equal probability of inclusion (O'Leary, 2005). Non-random sampling, however, involves the selection of individuals or cases when such a requirement is deemed unnecessary. In some research, particularly qualitative investigations, samples are selected with specific purposes in mind – a selectivity oriented towards the generation of relevant or rich data.

The approach can take two forms - judgement sampling and quota sampling (Albaldawi, 2005). Gerrish and Lacey observe that a:

> *judgement sample is used when the person in the sample is judged to have the right knowledge or information for entry (Gerrish and Lacey, 2006, p168).*

Quota sampling, on the other hand, is used to select a number of subjects from each category deemed apposite to a particular project (such as male and female or employed and unemployed). The numbers (or quotas) within each such category may be proportionate to those in corresponding categories in a wider population (proportionate quota sampling) or not proportionate (non-proportional quota sampling) (Brain, 2000). Quota sampling can thus either act as a "synthetic" substitute for random sampling or as a nuanced form of purposive sampling.

Even in the case of non-random sampling Seale (2004) suggests that some consideration needs to be given to sample sizes, where there is the possibility of marked heterogeneity in research populations and associated responses:

> *The main determinant of sample size is almost always the need to look separately at the results of different subgroups of the total sample (separate age groups, socio-economic groups, and so on). The total sample size is usually governed by the sample size required for the smallest subgroup: as a rough guide, the smallest subgroup will need to have between fifty and sixty members (Seale, 2004, p.67).*

In the case of this research, I was interested in the views of particular informants (educators, policy makers and students with some connection to provision for gifted students) and a specific research context (relevant localities within Saudi Arabia). I, therefore, chose to use non-random judgement sampling among pre-determined categories of cases - gifted students aged 12-17, as well as those involved or interested in programmes for the gifted (i.e. teachers, specialists, social workers, school head teachers and those in the Ministry of Education related to the district of Al-Qasim). Similarly, the study was limited to Al-Qasim because it is one of the areas that ran a programme for gifted students in Saudi Arabia. Indeed, this district is the only one in Saudi Arabia that has two schools especially for students of particularly high ability.

3.5 Method of selecting the samples for the present study

In this section I will explain in more detail how the two sample groups (students and professionals) were chosen.

3.5.1 Gifted students

The students in this sample had to meet the following inclusion criteria:

- Be labelled by the Ministry of Education as 'gifted' because my research field is related to the Ministry of Education in Saudi Arabia.
- Be under the umbrella of the Ministry of Education at the time of the research and follow special programmes.
- Be between the ages of 12 and 17 years old, because these ages are the only ages considered suitable for gifted programmes in this district.

Schools and students were selected from the list of schools registered in the Al-Qasim regional Education Office for gifted students. There were 186 students, both male and female, selected from 13 schools for males and 10 for females in Buraidah (capital of Al-Qasim) and the surrounding area.

3.5.2 Employees

Fifty-two employees were chosen from the Ministry of Education. These included specialist teachers of gifted students, head teachers, social workers, practitioners in the gifted students' programme and teachers in other subjects. Each practitioner had a particular role in the education of the gifted and talented students. First, the student supervisors assisted the students to be aware of their abilities, develop their potential and solve problems to achieve social, educational, vocational and psychological compatibility within their schools. The supervisors usually hold a degree in the social work, psychology or science departments. Second, teachers of gifted students are the teachers who have undertaken courses in the area of gifted programmes. In a third respect, practitioners of gifted programmes are those who have professional training in the area of gifted education and are currently working with programmes in gifted centres. Finally, the category of 'other workers' includes those who work with gifted students but do not hold any training in the area of gifted education such as librarians and technicians. The preponderance of men in these samples reflected the fact that custom and religion precluded direct contact between the male researcher and female research participants (and also, perhaps - in terms of available fieldwork sites and participants - a legacy of the historical and cultural emphasis initially placed on the education of males in Saudi Arabia). Subsequent findings should be considered in light of this gendered orientation but the latter was not a primary focus of the research.

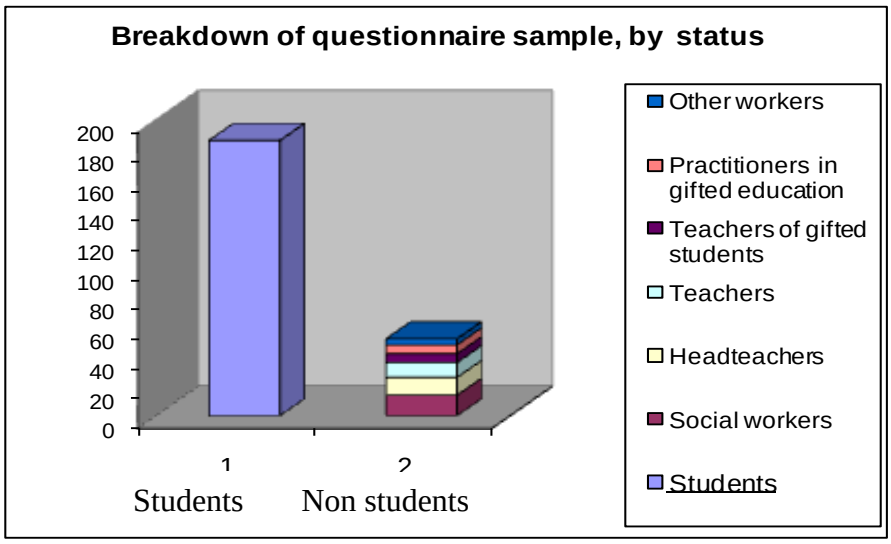
Table 3.2: Breakdown of questionnaire sample, by status

Series	Sample	N	M	***F***
1.	**Students**	**186**	**170**	***16***
2.	**Ministry of Education Employees**	**52**	**33**	***19***
2a.	*Social workers (Student Supervisors)*	*14*	*10*	***4***
2b.	*Head teachers*	*12*	*7*	***5***
2c.	*Teachers*	*10*	*7*	***3***
2d.	*Teachers of gifted students*	*6*	*2*	
2e.	*Practitioners of gifted programmes*	*6*	*4*	***2***

	2f.	*Other workers*	*4*	*3*	***1***
Total			**238**	**203**	**35**

The figure below (Figure 3.1) shows the percentages of participants by status across all levels. From this, it can be seen that approximately half of the respondents were students and half various workers.

Figure 3.1: The percentages of participants by status across all levels.



3.6 Methods of data collection

3.6.1 Questionnaires

Questionnaires are ideal for those who, within time and resource constraints, want to collect relatively large quantities of data from large samples:

> *Questionnaires gather information directly by asking people questions and using them as data for analysis. They are often used to gather information about attitudes, behaviours, activities and, responses to events and usually consist of a list of written questions. Respondents can complete questionnaires in timed circumstances, by post, or by responding to researchers directly who, armed with the questionnaire, can actually ask them the questions directly (Wisker, 2001, p 147).*

Questionnaires are a widely used and efficient means of collecting data (Cohen *et al*, 2007). Typically, questionnaires gather data about current conditions and practices and to ascertain attitudes and opinions of respondents about an issue, object or situation. Nonetheless, the use of questionnaires is not without problems. A well-designed questionnaire has to be easily understood by respondents and be likely to produce accurate

and relevant information that can be readily processed by the researcher (Wiersma, 1986). But the recipient may not be pleased to receive a questionnaire and his or her motivation to respond carefully and honestly, if at all, might be low. In a second regard, the questionnaire tells one only the user's reaction as the user perceives the situation. Bowling (2002) suggests that the first of these problems can be ameliorated to an extent by giving considerable thought to the instrument's appearance. A layout with too much information is uninviting - it must appear digestible to the participant. Legibility and space are obviously important (Bondagjy, 2000), but a particularly long questionnaire may be off-putting to respondents.

The nature of the research question itself, as advocated by Mertens (1998), can lead a researcher to choose appropriate research methods. For the purpose of this specific study, both the teachers and practitioners who were involved in the gifted programme were asked their views pertaining to programmes and strategies designed to identify gifted students. In addition, their perceptions in relation to the provision of programmes for gifted students (including both curricular and extra-curricular), the role of the social workers, training in the gifted field and attendant policies at the level of individual schools were explored. Another set of questionnaires was designed concerning the students. This involved describing some aspects of the family background of gifted students involved in the study, appropriate elements of self-reflection and self-evaluation on the part of gifted students and the perceived influence of schools upon the academic achievement by these students. Further, the views on the strategies employed by schools - factors beyond formal lessons, as well as the social life of gifted students involving to both non-academic and academic activities after formal classes were explored.

This study sought to produce results that would be quantifiable in nature and presented in a way that can be generalised to an extent, allowing for interesting outcomes to be formed. Thus, having the potential of being reproducible in similar environments, though with limited precision, but with hints for realities in comparable settings. Both the questionnaires in their conclusions also contained open questions, thus inviting the practitioners and gifted students to share personal perspectives without the constraints of proposed choices of answers provided. This, therefore, allowed a qualitative component to be added to the already quantitatively rich questionnaires.

Developing a questionnaire based on the original aims of a study is a demanding task and many aspects of the procedure must be taken into account. Initially, a focus and a reflection on the purpose, aims and objectives of the study and, mostly, on the research

question to be answered; through this, data collection is addressed. The questions need to be in accordance with the basic content and aims of the inquiry, such as "What are the topics we are interested in and why?" and "Which questions will produce meaningful answers?" The selection of the right questions, an effective pre-coding logical order and the provision of clear instructions (where appropriate) seem to be vital for the quality of the data collected (Newell, 1993). In the case of this study, the aforementioned procedure was vital in shaping the study and allowed the research to be more focussed and more specific.

As far as the types of questions are concerned, to partially use Mertens' (1998) terminology, the following types were employed within the questionnaires for both of the two populations:

Closed demographic questions

These seek to attain some of the personal characteristics of the respondents.

Open questions

These invite respondents to share examples of their views of the gifted student programme in the Saudi schools or even with respect to their personal talents and interests.

Knowledge questions

These enable the detection of the awareness regarding particular aspects of the topic (giftedness, talent) and an understanding of perspectives, attitudes, definitions, awareness and views. However, it was emphasised from the beginning that there was accountability with respect to the submitted answers and that the study is looking for personal answers and not testing any objective knowledge.

Attitude questions

These asked them to state their views on certain aspects of the programme, thus equating to the importance and gravity that they hold in relation to some concept within a context.

First, I needed to collect information about the gifted students' programmes in the Ministry of Education in the Kingdom of Saudi Arabia from both students and workers. I decided to collect this information using a combination of closed and a few open-ended questions. Reilly (2002) believes that:

> *You can dig for information both ways— open or closed. Ideally, you should ask all open-ended questions. Realistically, you may need to ask*

a few closed-ended questions to regain conversational control or to confirm what you heard from the lengthy response (p. 256).

The questionnaires contained mostly closed questions, while the interview guides allowed both open and closed questions. Frascara (1994), Maxfield and Babbie (2004) suggest some advantages of closed questions - they are more easily analysed, more specific, relatively easy to code and can be obtained relatively quickly by the researcher.

The students' questionnaire

The questionnaire addressed to students consisted of sixty questions and seven sections as follows:

Section 1. Family background: this section focused on the students' family background information. It consisted of eight questions.

Section 2. Academic achievement: this section requested information on how well the students understand themselves concerning their academic achievement at school. It consisted of thirteen questions.

Section 3. School influence: this section asked how much schools influence the students' academic achievement. It consisted of eight questions.

Section 4. Learning strategies: this section looked at strategies they often apply to their learning at school. It consisted of eleven questions.

Section 5. Social issues: this section asked gifted students about their social life. It consisted of six questions.

Section 6. Activities: this section focused on the extent of their participation in academic or non-academic activities after their classes. It consisted of two questions.

Section 7. Personal academic opinion: this section was concerned with the personal academic opinion of the gifted students. It consisted of ten questions.

The practitioners' questionnaire

The second questionnaire was designed for the practitioners and consisted of twenty two questions and three sections as follows:

Section 1 Identification: this section comprised eight questions. It was constructed with the aim of obtaining information about the identification programmes for gifted students at the Ministry of Education in Saudi Arabia.

Section 2 Provision: this section consisted of ten questions. It was constructed with the aim of obtaining information about the academic and non-academic provision for gifted student programmes in Saudi Arabia's Schools.

Section 3 Training: this section included four questions. It was constructed with the aim of obtaining information about all parts of training in the gifted field at schools.

Full copies of the students and practitioners questionnaire can be found in Appendix 2 and 3.

3.6.2 Interviews

A great deal has been written about the advantages of using interview studies in educational research. These are outlined by Armstrong:

> *The advantages of interviews…are that they provide opportunities for interviewers to ask probing questions about the candidate's experience…, [and] enable a face-to-face encounter to take place. (Armstrong, 2003 p. 422-423).*

Interviews thus provide a means to acquire potentially rich and detailed information. The flexibility of interviews allows the researcher to ask additional questions where necessary to obtain a deeper understanding of the interviewee's opinion. As Robson says:

> *Interviewing as a research method typically involves you, as researcher, asking questions and, hopefully, receiving answers from the people you are interviewing. It is very widely used in social research and there are many different types (Robson, 2002, p. 240).*

Interviews can be focused, structured, semi-structured (open-ended or open). Semi-structured interviews allow the researcher to discover the views of interviewees concerning facts or events. These views can help to confirm provisional findings or interpretations. The technique of open-ended interviews involves questions whose subject and sequence have not been completely identified before the interview. One of the benefits of employing this technique is that it permits flexibility in the subject and the sequence, according to each individual respondent. At the same time, it affords a certain sensitivity that can take into account the manner in which the researcher and the respondent are interacting (Holstein and Gubrium, 2004). As Gerrish and Lacey comment:

> *The flexibility of the interview format and structure is one of its greatest advantages. The interview is malleable and can be adapted to fit the needs and purpose of different studies (Gerrish and Lacey, 2006, p.347).*

However, there are some disadvantages. Interview research can be time-consuming and expensive, especially if the study involves data collection from a widely dispersed sample. Analysis of in-depth data also takes a lot of time (Robson, 2002). And Wiersma (1986) found that the presence of the interviewer can affect the responses in a negative or positive way. More specifically, Mooney *et al* claim that:

> *The most serious disadvantages of interview research are cost and the lack of privacy and anonymity. Respondents may feel embarrassed or threatened when asked questions that relate to personal issues such as drug use, domestic violence and sexual behaviour. As a result, some respondents may choose not to participate in interview research on sensitive topics. Those who do participate may conceal or alter information or give socially desirable answers to the interviewer's questions (e.g. "No, I do not use drugs") (Mooney et al, 2005, p. 20).*

Among these disadvantages, for example, there is the possibility that the researcher may influence the respondents, consciously or unconsciously, through facial expression, intonation, by pausing at certain points, by asking leading questions or through assorted subtle cues (Oppenheim, 2000).

3.7 The research

The development of the questionnaire and interview schedule began at Brunel University because, at the time, the researcher was in London. The first drafts were in English, as this was to be the language in which they were to be reported within this thesis. The researcher also translated the instruments from English to Arabic because the Arabic versions enabled the researcher to discuss them with colleagues in Riyadh and Al-Qasim. These preliminary discussions resulted in a number of alterations in both the wording and the sequencing of items or questions. Subsequently, the researcher translated the questionnaire into Arabic. The Arabic versions, along with their English versions, were submitted to two professors in the College of Social Science in Imam University in Riyadh, and three Arabic postgraduate students, to ensure that they were valid and correct translations. After that, the researcher submitted the English versions to the supervisor at Brunel University for comment and review. The supervisor also discussed them with other members of staff in the Faculty of Education. Some minor revisions were made based on recommendations from the latter. Examples of the revisions included new questions, shortening some sentences and changing some structural features of the instrument. The revised instruments were then translated back into Arabic by the researcher. Before leaving London for Saudi

Arabia to conduct the pilot and main studies, the researcher wanted to ensure accurate communication of ideas and meaning. Therefore, copies of the Arabic versions were handed to seven Arabic postgraduate students from the Saudi Students Club to verify that the last Arabic version accurately conveyed what appeared in the English versions. After further minor alterations, the penultimate Arabic versions were printed. When in Saudi Arabia again, the researcher submitted the penultimate Arabic versions, along with English ones, to three professors in the faculties of the Education Department, the Social Work Department and the Psychology Department, at Imam University and King Saud University in Riyadh, to review the questionnaire and interview schedules. Their suggestions were also very helpful, especially in the use of proper structures and wording.

Some of the more substantive improvements included:

- Changing the wording of some items to make their meaning clearer.
- Changing the sequence of some items and questions.
- Adding more items, questions and some suggested answers.
- Dividing some items and questions into two separate parts.
- Rewriting the form to facilitate the entering of data with the SPSS 13.0.1 Program.

After the necessary changes were made, the three instruments were sent back to the three consultants to examine the new version. They reviewed each instrument item-by-item, question-by-question, and they suggested some necessary alterations to make them more appropriate to the Saudi context. The last step was to pilot it with twenty students from different age groups and twelve workers, then to eliminate the questions which were found to be unsuitable or unclear. After the necessary amendments had been made, the final Arabic versions were considered valid and were printed for use in the full study.

The questionnaire and interview schedule were then approved officially and permission from the Ministry of Education in Saudi Arabia was obtained to interview students and employees as part of the research. To that end, the researcher visited all the selected schools and held discussions with the Head teachers to finalise appropriate dates and times for the fieldwork. The researcher was present when the male students were filling in their questionnaires, to provide help with any questions or queries. Female students filled in their forms in the presence of a social worker who communicated with the researcher via a mobile phone. This took considerable time because there are two types of schools in Saudi

Arabia, one for boys and the other for girls, and no one can enter them if they are of the opposite sex (not even teachers).

Most respondents were co-operative and appeared sincere. The interviews took place in a relaxed atmosphere, and the informants talked freely without appearing nervous. I also tried not to allow my own biases or opinions to affect my behaviour, in accordance with guidance in the methodological literature:

> *Engaging young people in interviews has been relatively problem-free. Although some interview respondents have been naturally shy and reticent, the majority have been very willing to talk about their experiences – possibly because they have had few opportunities to do so in the past and value the opportunity to share their knowledge and experiences with someone who believes them and is non-judgemental (Kemshall and Littlechild, 2000, p.133).*

Finally, I tried to listen carefully, to talk only when necessary by encouraging the respondents to speak freely.

3.8 Field of study

In order to meet the objectives of this study, I chose schools from the Al-Qasim district and - in particular - the city of Buraidah (the capital of the district) together with surrounding areas. These sites were selected because the Ministry of Education had full programmes for gifted students in this region in a relatively small number of schools and cities. Thirteen schools for males and ten schools for females were identified by the Ministry of Education as the only schools that had enough gifted students to sustain the envisaged research.

3.9 Research population

Varma and Mallick (1999) suggest that if the findings of a study are to be considered usable, the researcher needs to be clear about the population to be surveyed and the nature of the units making up that population. Moreover, the intended or target population should be carefully defined. As the objective of this study was to draw conclusions about the gifted students' programmes in the Ministry of Education in Saudi Arabia from the perceptions of the workers, teachers and gifted students in the Al-Qasim district, non-random sampling was employed (because the number of gifted identified was limited, I could not choose a non-random sample). The population was made up of the following groups:

- Gifted students studying in schools under the authority of the Ministry of Education (Buraidah Region).
- A member of the personnel responsible for gifted students in the Ministry of Education in Riyadh.
- A member of Riyadh's King Abdul Aziz Institute for the Gifted.
- All those working in the gifted students' care centre which is part of the Administration of Education in the area of Al-Qasim District.
- Employees from schools that host gifted students: head teachers, specialists, social workers and teachers of gifted students.
- Teachers that specialise in working with gifted students and who are termed as "Gifted Students' Teachers".

The research population consisted of 238 people, these numbers being available for research in the data collection period.

3.10 The Interview Guide

The second method used in this research was the interview. Items in the interview schedule were selected in order to allow respondents to talk freely. Three sets of interviews were conducted; 15 interviews with gifted programme workers, a group interview with 5 interviewees, and 5 individual interviews with senior workers on gifted students programmes. Detailed information about these interviews is provided shortly.

3.10.1 Selecting interviewees

3.10.1.1 Group Interview

In the morning in the Office of the Director of the Centre, from the group who were working in the Al-Qasim Gifted Students Care Centre at the time I selected 5 random individuals for the group interview, which was carried out in the form of a discussion. The discussion was about the Centre and the programmes offered and the views of all about the programmes of the Ministry of Education for gifted students. At the start of this session, I, as the researcher outlined the aims and objectives of the task and they were all reassured that the information provided will be used for research purposes and thus be held in the strictest form of confidentiality. All the subjects were allowed as much time within reason to express their respective views and thoughts, which was then succeeded by an open time for the other members to agree or disagree. As the chair, I remained completely unbiased and neutral and did not show my views or inclinations – so to further encourage the participants in expressing themselves freely. I did this by not reacting to their views with

any motions or expressions and did not interrupt. From this session, I was able to amalgamate their respective and, more importantly, collective views of the programme. These results were transcribed and subsequently analysed.

There are some advantages of group interviews. The main advantage is that it is possible to obtain information from diverse informants relatively quickly. The second advantage is that group interviews provide some excellent controls and dependability checks on the information that participants tend to give for the views of others (Bryman, 2008). In addition, it allows the individuals involved to interact with each other in enunciation, rationalising, challenging and developing views – a potentially rich supplement to a succession of isolated personal opinions (Lehoux *et al* 2006).

It was interesting to note that when comparing the results from the Group Interview, there was not any information that was left unpreserved in the individual interviews carried out in the form of questionnaires. This was also the case vice-versa. It therefore allowed the results to be reinforced and confirmed and thus ensuring reliability. However, the group interviews allowed, in some aspects, a greater depth in obtaining information, since it was not explicitly asked within the questionnaire. Incorporating such a method in the study allowed for this extra dimension.

3.10.1.2 Individual interviews

The questionnaire sample was an 'opportunity' sample, with a 100% return of responses made possible through my position, because I was there with the students and the social workers or other teachers when they answered it. I conducted interviews with 15 gifted programme workers, aiming to obtain their views about their experience of working with these programmes and opinions on their role and what they felt were the main influences. These interviewees were available when I went to obtain the information. Before starting the fieldwork, the purpose and nature of the research were outlined to the participants and I asked for their co-operation by explaining the importance of the study. I assured them that I would maintain confidentiality and do my best not to disturb normal school work. Every effort was made to cause minimum disruption within the overall research requirements. As Schensul and LeCompte note:

> *Rapport ultimately rests on the connections through which ethnographers have been introduced to the community setting, how comfortable researchers*

are with the people in the field, how well they maintain confidentiality (Schensul and LeCompte, 1999, p. 75).

Finally, I made notes during each phase of the research, and immediately afterwards, to avoid forgetting any important information. A research diary was also kept to record my ideas, worries, feelings, problems met, appointments and any addresses as the study was conducted.

Further individual interviews were conducted with five senior workers who at the time were working on gifted student programmes:

- The Supervisor responsible for enrichment programmes for gifted students in the Ministry of Education in Riyadh.
- Director of the Office of the President of King Abdulaziz and His Companions Foundation for the gifted.
- Director of the Al-Qasim Gifted Students Care Centre.
- Director of the Prince Sultan bin Abdulaziz Complex Education for gifted students.
- Director of the Gifted Students Care Centre for girls.

These interviews were based on informants completion of a questionnaire in the presence of the researcher – a means of ensuring that all relevant questions were addressed, while also facilitating discussion and clarification. The instrument encompassed three main sections and 22 questions (completion took an average of 30 minutes). Subjects were encouraged to ask the researcher if they queried the clarity of any of the questions or mentioned points. A sample of a completed questionnaire can be viewed in Appendix Number 2, 3 and 4.

The advantage of the individual interview is that it can offer greater depth and it facilitates sustained probing in relation to important questions. It allows the researcher to obtain more detailed data and facilitates greater rapport between the researcher and informant – with an increased insight in the individuals' emotions and freedom to expand and explain matters without any restrictions in providing closed answers.

3.11 Documentary data

Documentary data is a potentially important element or indeed foundation of qualitative research (Noaks *et al*, 2004). In this regard I observed many lessons and obtained materials

such as activity plans, CD program materials, some books and documents related to gifted student programmes in Saudi Arabia (e.g. Enrichment Programme for Gifted Students and Problem Solving Steps Programme).

Documentary data can be particularly useful in contextualising or corroborating findings accrued from other research methods:

> *The advantage of using different kinds of sources lies in the fact that both the aim and character of the texts vary depending on their type. This allows cross-referencing of views collected and assists in eliminating errors and in collating information from different documents. Consequently, such methodology reduces the subjectivity inherent in this kind of documentation (Rodrigo, 2001, p. 148).*

I also visited the Ministry of Education in Riyadh, The General Administration for Gifted Students, The Gifted Students Care Centres and King Abdul Aziz Institute for the Gifted. In addition, I visited the King Fahad National Library in Riyadh and obtained a number of relevant articles, documents and reports on gifted student programmes in Saudi Arabia.

3.12 Observation

Observation is a familiar technique in the study of education (Merrell, 2003). Actions in the fieldwork setting are typically noted, interpreted and perhaps coded by the observer, recorded and coded into important units (Dane, 1990). More specifically, observational data:

> *are used for the purpose of description—of settings, activities, people and the meanings of what is observed from the perspective of the participants. Observation can lead to deeper understandings than interviews alone, because it provides knowledge of the context in which events occur, and may enable the researcher to see things that participants themselves are not aware of, or that they are unwilling to discuss (Hoepfl, 1997).*

There are two types of observations in the realm of research: direct and unobtrusive. Direct is where the researcher is made apparent to the subject whilst assessing – which can however often lead to the subject reacting differently i.e. out of the norm. This may not necessarily be a bad connotation, as it will reveal and highlight to the individual the desired result. The main advantage of this is flexibility, whereby the approach can be changed as needed. Also it measures behaviour directly – and not reports of behaviour or intentions.

The main disadvantage, however, is that it is limited to behavioural variables and cannot be used to study cognitive or affective variables. Unobtrusive is where the researcher involved is not apparent to the individuals and hence are unaware that they are being observed. Here, there is not the concern that the observer may change the subject's behaviour, however, issues of validity need to be considered. Numerous observations of a representative sample need to take place in order to standardise the findings. Interpreting observations is also important to consider and there are three types of observational variables: Descriptive, Inferential and Evaluative. The first requires no inference making on the part of the researcher and what is seen is effectively noted. The second requires the researcher to make inferences about what is observed and the underlying emotion. The third requires the researcher to cast an inference and a judgment from the behaviour Brown, 2009).

Accordingly I made some notes during my observations and reviewed these both before and during analysis of the other data (but the observational process was a supportive and secondary measure). These observations were recorded during the study by a researcher on schools, which involved completion of a questionnaire and interviews with both a student and practitioner who worked with gifted students. This aspect of the study lasted about a month. The researcher used some significant observations in order to support the results of questionnaires and interviews, and further when it is interpreted and analyzed. For example, the behaviour of students has been observed through gifted programs. The aspects that were noted were: the methods and ways of teaching the gifted, the services provided in the schools and the general atmosphere in the schools.

3.13 Pilot phase

Gilmore tells researchers to:

> *be sure to allow enough time to conduct a pilot test. The time invested in this important preliminary activity should result in an effective format and increased response rate (2005, p 55).*

Accordingly, a pilot study was conducted before the main phase of the research. The rationale for this approach is encapsulated by Tashakkori & Teddlie (1998) a pilot survey is an essential part of any Social Survey to test the survey so that corrections can be made before the real investigation starts.

All professional social scientists doing surveys conduct pilots and no matter how careful, eminent or experienced the researcher is corrections are always made. It is only then that finalised questions can be made and it is usually worthwhile to include coding boxes for computer analysis in the final questionnaire (Cockburn, 2003, Internet reference)

After checking the validity of the questionnaire and its translation into Arabic, the questionnaire was piloted. The pilot questionnaire was distributed randomly by the researcher to three Head teachers, two social workers, four teachers, three other practitioners and twenty gifted students from different ages.

3.14 Data analysis

The data obtained in the fieldwork for the present study were of two basic types:

- Quantitative data obtained from the questionnaire completed by workers, teachers and gifted students
- Qualitative data obtained from the interviews with teachers and workers in the programme for gifted students.

The analysis was carried out by using one of the most popular statistical analysis software packages - Statistical Package for Social Sciences (SPSS 13.0.1 for Windows). The purposive nature of the sampling did not preclude detailed statistical experimentation but pointed to a broadly descriptive approach to the reporting of findings – patterns and relationships within the data would be particular to a specific time, place and context rather than representative of wider populations. The following statistical methods were also used in the analysis of data for accuracy and speed of production:

- Simple proportional diagrams.
- Percentages whereby variables are described.
- Charts and diagrams.

All tape-recorded interview data were transcribed and, together with the notes taken by the researcher from the unrecorded interviews, were subjected to analysis. This involved initial coding of data against themes identified for the interview guide prior to the research (a preliminary framework analysis). These provisional codes were then refined further as the data were interrogated on an iterative basis until the researcher was satisfied that a viable coding frame had been developed.

3.15 Insights from the literature and the thematic content of research instruments

The preceding chapter, in surveying the literatures concerned with the idea of giftedness, identified considerable diversity in approaches to the definition of giftedness, suggested ways of identifying gifted students and thoughts on the most appropriate forms of educational provision for this group. Such diversity - it was concluded - attests not just to different academic emphases but also to the importance of culture and attendant institutional practices in mediating and shaping definitions of and responses to giftedness. The themes to be explored through research instruments (such as the questionnaire distributed to students) thus had to reflect two emphases. On the one hand there was a necessary focus upon issues highlighted by the review of literature (such as identification policies and enrichment activities in relation to gifted students). On the other hand, the exploratory nature of the research and the fact that it was concerned with one country (a non-comparative approach) pointed to the need to begin to explore the lived experiences and cultural lenses through which ideas of giftedness and educational responses were being shaped in Saudi Arabia. In other words, the thematic content of the research instruments had to reflect the fact that this was a study of programmes for gifted students but within a specific time and cultural milieu.

This twin emphasis was reflected in the questionnaire that would be completed by 186 gifted students. The instrument began with a series of items vitiated by a view in sections of the literature that gifted students from disadvantaged backgrounds tend to be under-represented in specialist programmes (findings are reported in chapter four). Related questions thus focused on the socio-economic characteristics and educational background of the gifted students parents' and perceived family expectations and levels of support (Appendix 2 - items 1 to 8). Later items, again reflecting themes within the literature, addressed the issues of enjoyment and task-commitment associated with some understandings of giftedness and creativity. The gifted students were invited to respond to statements such as "I like to be perfect with my studies", "I work hard to improve myself" and "I enjoy difficult tasks which encourage me to work hard" (items 10 to 21). But these data were augmented by contextual questions on friendships and social activities (items 43 to 48). In a similar vein, student views on the extent of enrichment and extension activities at their schools (a major theme within the reviewed literature) were associated with lived perceptions of the power wielded by teachers and views on the ability of these teachers to make learning interesting (items 22 to 30). Such items, I suggest, helped to provide an insight into a socio-cultural context in which to view more descriptive findings such as

those on whether the students considered themselves gifted and how they might have been so characterized (items 51-54) plus self-reported academic results (item 9 and items 55 to 59). In other words, I was concerned to move beyond measuring the self-reported academic manifestations of giftedness in order to begin to understand what it means to be gifted and to be so regarded in the specific cultural context under examination.

Similarly, reflecting this twin-track approach, some of the key topics of debate identified in the literature review were addressed by items in the questionnaire completed by 52 practitioners concerned with the education of gifted students, such as teachers, head teachers and social workers (the findings are discussed in chapter five and the research instrument is added as Appendix 3). The section within the literature review on "methods of identification of gifted students and related theories" was reflected in questionnaire items regarding specific practices and policies for such identification and associated procedures for liaison and record-keeping in the Saudi schools under consideration (Appendix 3 - items 2 to 8). Other questions concentrated on some of the issues raised in the section of the literature review concerned with "provision for gifted students". These included items on the prevalence of academic extension and enrichment activities (items 9 to 13). Each practitioner was, for example, asked whether their school (where applicable) provided academic extension activities after normal school hours (item 10) and about specific initiatives such as summer schools for the gifted (item 12). Related topics included the existence or otherwise of a named coordinator of provision for gifted students, whether gifted students had access to a social worker and the training of staff in connection with the education of gifted students (items 15, 16, 19 and 20).

But in order to reflect a more evaluative, "lived" perspective, interviews with individuals involved at a programme level with provision for gifted students and a group interview with five such participants were also conducted. All these participants were drawn from the wider sample of 52 practitioners but they tended to include more senior individuals (such as the Supervisor responsible for enrichment programmes within the Ministry of Education and the Director of the Al-Qasim Gifted Students Care Centre). They were able to address some of the matters pointed to in the literature, such as Ministry of Education's definition of giftedness and its approach to the identification of gifted students (Appendix 4 - items 13, 14 and 16). But as discussion of the findings in chapter six illustrates, these qualitative data also facilitated a more nuanced understanding of perceived difficulties and shortcomings with regard to the implementation of policies. The discussions would reveal, for example, significant regional differences in the time and energy devoted to identifying

gifted students, uneven provision of information to head teachers about the identification of such students and the absence of a central register of the students. Other reported problems would include a lack of specialized staff, limited training opportunities for personnel and some problems of co-ordination between schools for gifted students and specialist centres. Again, the fluidity of the interview schedule helped to begin to give an understanding of the culturally situated definitions, policies and practices relating to giftedness and gifted students within Saudi Arabia.

3.16 Ethical considerations

One of the first and most important issues that had to be dealt before starting my study was to resolve any potential ethical considerations. Alldred and Gillies (2002) write that ethical considerations are more substantial when a study focuses on the lives of people. Emmanouilidou (2007) suggests that, on one hand, some ethical issues are very clear and reasonable, (such as to employ good manners), but on the other hand there are a number of issues that are less obvious and need to be clarified before embarking on any project. Basic principles rather than an exhaustive list of detailed proscriptions and prescriptions are thus important. In that respect, the University of Brunel official policy suggests that ethical reflection is necessary whenever the conduct of research may impinge on the rights and interests of others.

> *This code is intended to provide a set of generic ethical requirements to be observed when designing, conducting, recording and reporting research that involves human participants. Compliance with this good practice will provide assurance that the dignity, rights, safety and well-being of research participants are of primary importance in any research study, that they are protected and that the results of the research are credible. [Research involving human participants may include healthy volunteers, patients or clients and may include research on identifiable human material or identifiable data relating to individuals]. (Brunel University code of ethical requirements for research involving human participants, 2009).*

Before commencing the data collection from the participants, as stated by Gray (2004), all were made to be aware of the following: the aims of the research, who is undertaking it, who is asked to participate and why, the information that is sought, time required, voluntary or obligatory participation, access to the data and anonymity. This information was available in the covering letter addressed to the Ministry of Education of Saudi Arabia,

as well as in the introduction to the questionnaire and prior to the interview. During this task, for example, the researcher conducted himself as a neutral candidate conducting a fair and responsible research in order to attain improvements and further developments in the Gifted Programme of the Kingdom's administration of the Ministry of Education. All the participants were made aware of this and the fact that all the feedback and responses obtained will be treated with the utmost confidentiality.

However, some limitations may arise from aspects of research; for example, as outlined by Kelly and Ali (2003), qualitative research in particular raises many ethical considerations. As the approach has become more popular during the last decade, there have been increasing concerns on how ethical concepts ensure the quality of research findings. Primarily, as acknowledged by Bogdan and Knopp-Biklen (1982), it is important to remember the fact that the study participants are not materials but rather individuals who react to the research situation. It has to be made clear that qualitative research does not study people in order to cast judgments on them. But, rather, the aim of the researcher is to develop empathy with people under the study and to make genuine efforts to understand their various opinions.

In addition, it is the right of participants to be aware of the general objectives of the research as well as the possible dangers and obligations that are involved (Radnor 2001, pp.39). Their participation must be voluntary and the researcher should be in place to guarantee their anonymity – in addition to making the subjects aware that they are free to drop out at any stage without offering any explanation of any sort. These ethical considerations were kept in mind throughout the whole of the present research project, allowing for an upright, honest and transparent methodology, purporting to be the backbone of the outlined research.

3.17 Summary

This chapter recounted the research design and methods employed in the investigation. The chapter outlined the rationale for the fieldwork design and considered the issues of sampling, instrument development and analysis. The findings are presented in the next three chapters. The first of these chapters centres on results from the questionnaire research oriented towards gifted students; the second encompasses the views of those who work with these students or develop attendant policies. Attention then switches to findings derived from the interviews.

CHAPTER 4

THE RESULTS OF THE STUDY

Regarding the Gifted Students Questionnaire

CHAPTER 4

THE RESULTS OF THE STUDY

Regarding Gifted Students Questionnaire

4.1 Introduction

This part of the thesis reports results from the questionnaire survey administered to 186 gifted students (170 males and 16 females) aged between 12 and 17 years in the period between April 2006 and June 2006. The first section of this chapter describes some aspects of the family background of gifted students involved in the study. The second part of the chapter concentrates upon apposite elements of self-reflection and self-evaluation on the part of gifted students. In the third section, discussion turns to the perceived influence of schools upon academic achievement by these students while the fourth part of the chapter explores views on the strategies employed by schools in this respect. The chapter then concentrates upon opposite factors beyond formal lessons. The fifth and sixth parts of the discussion thus consider the social life of gifted students and the non-academic and academic activities after formal classes. The chapter concludes with data on self-reflection by gifted students in the survey with regard to the idea of 'giftedness', its identification and achievement in different academic subjects.

It is pointed out that in this chapter and the two subsequent chapters (5 and 6) the results are presented. Analysis, commentary and discussions of the findings are presented in detail in Chapter Seven.

4.2 Section One: Family Background

This section introduces the family background of the participating gifted students as ascertained through the questionnaire survey.

4.2.1 Parents' highest academic qualification

		Father		Mother	
Education Type		**Frequency**	**Percentage**	**Frequency**	**Percentage**
1	No schooling	4	2.2	14	7.5
2	Junior school diploma	7	3.8	30	16.1
3	Middle & High school diploma	45	24.2	53	28.5
4	College diploma	8	4.3	9	4.8
5	University degree	85	45.7	76	40.9
6	Masters	22	11.8	3	1.6
7	PhD	15	8.1	1	0.5
Total		186	100	186	100

Table 4.1: *Parents highest academic qualification* (Q1)

As table 4.1 indicates, most gifted students' parents have higher education (HE) qualifications. The percentage of fathers with HE qualifications is higher than that of mothers - 45.7% of the fathers and 40.9% of the mothers have university degrees. Similarly the percentage of fathers with a postgraduate degree was higher than for mothers. Indeed, the percentage of mothers with no formal education was much higher than that for fathers - 16.1% of mothers had a junior school diploma but 7.5% of this group had received no formal education. This gender imbalance was only oriented in favour of women at the intermediate level - 24.2% of the fathers and 28.5% of the mothers obtained middle and high school diplomas. These gender differences are perhaps due in part to Saudi social mores - mothers are often thought of being not in great need of higher levels of education or of incomes required to support a family. Indeed, according to Islamic social law, a father has primary financial responsibility for his family even if his wife is wealthier than him.

4.2.2 Parental occupation

Occupation Type		Father		Mother	
		Frequency	Percentage	Frequency	Percentage
1	Self employed	24	12.9	3	1.6
2	Business person	9	4.8	0	0.0
3	Teacher	50	26.9	60	32.3
4	Civil servant	63	33.9	12	6.5
5	Engineer	7	3.8	0	0.0
6	University lecturer	12	6.5	2	1.1
7	Doctor	0	0.0	1	0.5
8	No job (at home)	2	1.1	99	53.2
9	Others	19	10.2	9	4.8
Total		186	100	186	100

Table 4.2: *Mother and fathers' occupation*. (Q2)

Table 4.2 shows that the largest proportion of the parents of gifted children worked for the government in teaching or other government jobs. Over a third of fathers were civil servants and nearly 27% were teachers. Similarly a third of mothers were teachers and 6.5% of them were in other government jobs. It is also perhaps worth noting that such jobs tend to be relatively attractive in Saudi Arabia due to relatively high salaries, fewer working hours compared to other occupations and longer leave than in other public sector jobs. However, mothers of gifted students in the survey often stayed at home (rather than engage in paid employment) - 53.2% of mothers were at home but just 1.1% of fathers fell into this category. This could well reflect Arabic culture and Islamic ideas as well as personal preferences. Accordingly, the results indicate that no females were engineers - Arabic culture does not associate heavy 'physical' jobs with females.

4.2.3 Family size

Number of people		Frequency	Percentage
1	Four (4)	4	2.2
2	Five (5)	5	2.7
3	Six (6)	27	14.5
4	Seven (7)	38	20.4
5	Eight (8)	48	25.8
6	Nine (9)	27	14.5
7	More	37	19.9
Total		186	100

Table 4.3: *Number of people living in the home.* (Q3)

Table 4.3 shows that most families described in the survey have a relatively large number of children. Over a quarter had eight people living in the household, a fifth had seven and nearly 20% had over nine. There does not, however, to be a prima facie case for associating household size with giftedness among children. The average household in Saudi Arabia has seven individuals and it is not unusual for women to have over five live births (Raphaeli, 2003).

4.2.4 Number of brothers and sisters

Number of siblings		Brothers		Sisters	
		Frequency	Percentage	Frequency	Percentage
1	One	37	19.9	43	23.1
2	Two	50	26.9	50	26.9
3	Three	48	25.8	42	22.6
4	Four	22	11.8	19	10.2
5	Five	11	5.9	7	3.8
6	More	7	3.8	11	5.9
7	None	11	5.9	14	7.5
Total		186	100	186	100

Table 4.4: Number of brothers and sisters. (Q4A & Q4B)

From this table, we can see that more than half of the gifted students had two brothers and two sisters; 9.7% of them had six siblings. Just 13% of students had no siblings. As with household size, there is no immediate case for linking the number of siblings to giftedness in children.

4.2.5 The birth order

The birth order		Frequency	Percentage
1	First	51	27.4
2	Second	43	23.1
3	Third	38	20.4
5	Fourth	19	10.2
6	Fifth	12	6.5
7	Sixth	12	6.5
8	More	11	5.9
Total		186	100

Table 4.5: *The birth order among other brothers and sisters*. (Q5)

Perhaps more interestingly, given the relatively large size of most families, over half of the gifted students in the sample were first or second born children in their families.

4.2.6 Help from parents

Helping students		Frequency	Percentage
1	Father	8	4.3
2	Mother	29	15.6
3	Both	70	37.6
4	Others	12	6.5
5	Nobody	67	36
Total		186	100

Table 4.6: *Helping students with studies at home*. (Q6)

Table 4.6 indicates that most gifted students receive help from their parents with study at home. For example, 64% of the students received this help and just 36% of them depended on themselves. Furthermore, the results show that mothers support their children's study more often than fathers – nearly 16% of students received support from mothers alone but only about 4% had such assistance from fathers alone. This could be because mothers stay at home more than the fathers. In a third regard it can be seen that 37.6% of parents work together to help their children with study at home.

4.2.7 Family expectations

Family expectations		Frequency	Percentage
1	Support the family financially	5	2.7
2	Find a good job	50	26.9
3	Obtain master degree or above	114	61.3
4	Others	17	9.1
Total		186	100

Table 4.7: *Family's expectations of students*. (Q7)

As table 4.7 indicates, the majority of gifted students believe that their family expect them to obtain a good quality degree. Over 61% of students believed that the family's expectation of them centred on obtaining a masters degree or above while 26.9% of participants thought these expectations included finding a good job. On the other hand, a minority of them believed the family's expectations were for them to support the family financially. Most families of gifted students thus appear to have high expectations of their children. The size of the sample and number of potential variables does however preclude statistical confirmation of this intuitive relationship between expectations and academic performance.

4.2.8 Kind of parental support

Kind of support		Frequency	Percentage
1	Material	7	3.8
2	Spiritual	18	9.7
3	Both (Material & Spiritual)	159	85.5
4	None	2	1.1
Total		186	100

Table 4.8: *Kind of parental support*. (Q8)

Table 4.8 indicates that most gifted students receive both material and spiritual support from their parents. 85.5% of them said they received both. However, there were just 1.1% of them that did not get any support from their families. The issue of spiritual support is notable, of course, in that it raises an issue if definition and renders comparison with familial support in less (or even differently) 'religious' cultures more difficult.

4.3 Section Two: Academic Achievement

This section looks at how well students understand themselves in relation to their academic endeavours and achievement at school.

4.3.1 Most recent academic results

Students' results		Frequency	Percentage
1	80% to under 85%	0	00
2	85% to under 90%	1	0.5
3	90% to under 95%	25	13.4
4	95% to under 100%	132	71
5	100%	28	15.1
Total		186	100

Table 4.9: *Most recent academic results*. (Q9)

We can see from the table that most gifted students had, not surprisingly, scored highly in recent assessments. Over 70% had obtained a score of more than 95% for their most recent assessment and 15.1% of them received 100%.

4.3.2 Academic ambitions

The average results		Frequency	Percentage
1	Strongly disagree	37	19.9
2	Disagree	16	8.6
3	Slightly disagree	22	11.8
4	Between	23	12.4
5	Slightly agree	15	8.1
6	Agree	16	8.6
7	Strongly agree	57	30.6
Total		186	100

Table 4.10: *Reported desire to pass exams and obtain a degree* (Q10)

In this table, we can see that most gifted students aim to pass exams and obtain degrees. Nearly 31% of them strongly agreed with these aims and 16.7% also 'agreed'. On the other hand, the table shows that nearly 20% of students strongly disagreed with these aims while 20.4% just 'disagreed'. A further 12% of students, however, did not agree or disagree in this regard.

4.3.3 Confidence in Academic Abilities

		Frequency	Percentage
1	Strongly disagree	1	0.5
2	Disagree	1	0.5
3	Slightly disagree	10	5.4
4	Between	13	7
5	Slightly agree	63	33.9
6	Strongly agree	98	52.7
Total		186	100

Table 4.11: *Reported confidence in academic abilities* (Q11)

Table 4.11 shows that most gifted students are confident about their academic abilities. Nearly 87% of them were confident and just 6.4% did not feel confident about their academic abilities. A further 7% were not sure about their abilities.

4.3.4 Students working hard

		Frequency	Percentage
1	Strongly disagree	1	0.5
2	Disagree	3	1.6
3	Slightly disagree	14	7.5
4	Between	18	9.7
5	Slightly agree	42	22.6
6	Strongly agree	108	58.1
Total		186	100

Table 4.12: *I work hard in order to improve myself*. (Q12)

Table 4.12 suggests that most gifted students reported that they “work hard” in order to improve themselves. Nearly 81% of the students reported working hard and just 9.6% of disagreed with such a description. About 10% of the respondents were neutral in this respect.

4.3.5 Working hard to please their parents

		Frequency	Percentage
1	Strongly disagree	2	1.1
2	Disagree	1	0.5
3	Slightly disagree	4	2.2
4	Between	5	2.7
5	Slightly agree	9	4.8
6	Agree	23	12.4
7	Strongly agree	142	76.3
Total		186	100

Table 4.13: I have to work hard to please my parents. (Q13)

But for whom were many of the students 'working hard'? Table 4.13 shows that most gifted students work hard to please their parents. Over 93% agreed with a sentiment to this effect and just 3.8% disagreed. The degree to which these figures chime with students' views on whether relationships with parents were positive or negative was not, however, explored.

4.3.6 The importance of education for career ambitions

		Frequency	Percentage
1	Strongly disagree	2	1.1
2	Disagree	1	0.5
3	Slightly disagree	1	0.5
4	Between	8	4.3
5	Slightly agree	12	6.5
6	Agree	31	16.7
7	Strongly agree	131	70.4
Total		186	100

Table 4.14: Education is important for my future career development. (Q14)

We can see that most gifted students believed that education is important for their future career ambitions. Nearly 94% of the students agreed with this statement and just 2.1% disagreed.

4.3.7 School Life

		Frequency	Percentage
1	Strongly disagree	9	4.8
2	Disagree	7	3.8
3	Slightly disagree	21	11.3
4	Between	42	22.6
5	Slightly agree	34	18.3
6	Agree	34	18.3
7	Strongly agree	39	21.0
Total		186	100

Table 4.15: School life is interesting. (Q15)

This table shows us that 57.6% of gifted students thought school life was interesting. On the other hand, 19.9% of them disagreed. A further 11% of the students neither agreed nor disagreed. These last two figures might, in speculative terms, be attributable to teaching methods, too many subjects, insufficient school activities or simply the personal dispositions of students. Accordingly, the research inquired about the attitude of students towards what were perceived as 'difficult' academic challenges and their orientation to the character trait of 'perfectionism'.

4.3.8 Difficult Tasks

		Frequency	Percentage
1	Strongly disagree	23	12.4
2	Disagree	20	10.8
3	Slightly disagree	20	10.8
4	Between	34	18.3
5	Slightly agree	22	11.8
6	Agree	33	17.7
7	Strongly agree	34	18.3
Total		186	100

Table 4.16: I enjoy difficult tasks which encourage me to work hard. (Q16)

Table 4.16 shows us that 47.8% of gifted student enjoyed 'difficult' tasks that encouraged them to 'work hard' and that 34% of them did not enjoy such tasks. About 18% of the students neither agreed nor disagreed in this regard. These figures suggest a weak, far from definitive, relationship between the perceived difficulty of educational tasks and the degree

to which school is perceived as interesting by gifted students. But what role did a perfectionist orientation play with regard to how studies were perceived?

4.3.9 Perfectionism

		Frequency	Percentage
2	Disagree	2	1.1
4	Between	9	4.8
5	Slightly agree	11	5.9
6	Agree	27	14.5
7	Strongly agree	137	73.7
Total		186	100

Table 4.17: I like to be perfect with my studies. (Q17)

This table (conflating a symmetrical Likert scale) indicates that most gifted students like to be perfect in their studies. Over 90% of them took this view while only 7% disagreed. But was this tendency towards perfectionism an innate character trait or was it borne of experience (whereby repeated high achievement conditions future personal expectations and motivation)? In order to address this question the students were asked about the extent to which schoolwork was seen as easy and about their anxiety in connection with assessments. Finally, within this suite of questions, the relative influence of peers in the selection of optional classes by gifted students is considered (on the basis that a perfectionist orientation would lead these pupils to choose the classes in which they expected to perform best, regardless of options pursued by classmates).

4.3.10 School work

		Frequency	Percentage
1	Strongly disagree	2	1.1
2	Disagree	3	1.6
3	Slightly disagree	6	3.2
4	Between	43	23.1
5	Slightly agree	34	18.3
6	Agree	54	29
7	Strongly agree	44	23.7
Total		186	100

Table 4.18: School work is easy for me. (Q18)

In this table, we can see that the majority of gifted students believed that school work was indeed easy. About 70% of them believed this and just 5.9% of them did not. But this may, of course, be because the majority of gifted students, by definition, find educational challenges easier than less able students.

4.3.11 Anxiety when answering questions

		Frequency	Percentage
1	Strongly disagree	58	31.2
2	Disagree	27	14.5
3	Slightly disagree	12	6.5
4	Between	36	19.4
5	Slightly agree	20	10.8
6	Agree	21	11.3
7	Strongly agree	12	6.5
Total		186	100

Table 4.19: I worry when answering questions. (Q19)

The table above shows that about half of the gifted students did not worry when they answer questions and nearly 29% were anxious in that regard. But they answered questions.

4.3.12 Worries about making a mistake

		Frequency	Percentage
1	Strongly disagree	30	16.1
2	Disagree	21	11.3
3	Slightly disagree	23	12.4
4	Between	55	29.6
5	Slightly agree	19	10.2
6	Agree	18	9.7
7	Strongly agree	20	10.8
Total		186	100

Table 4.20: I worry when I have made a mistake. (Q21)

In a similar respect just over 30% of gifted students worried when they make a mistake and about 40% indicated that they did not worry.

4.3.13 Class selection and classmates

		Frequency	Percentage
1	Strongly disagree	44	23.7
2	Disagree	12	6.5
3	Slightly disagree	14	7.5
4	Between	25	13.4
5	Slightly agree	19	10.2
6	Agree	23	12.4
7	Strongly agree	49	26.3
Total		186	100

Table 4.21: I will attend class if my friends attend. (Q20)

As intimated above, the research instrument also sought to gauge the relative influence of peers (as opposed to a perfectionist orientation) in the selection of optional classes. We can note that a larger proportion – nearly 50% - of the sample (who had some degree of choice in subjects) indicated that they were influenced by the preferences of their classmates. But those who reported no such influence amounted to nearly 40% - so the relative influence of peers in the selection of optional class in relation to a search for subjects that offered the prospect of the best grades appears to be quite limited.

4.4 Section Three: School Influence

This section explores how much schools influence students' academic achievement.

4.4.1 Students like their School

		Frequency	Percentage
1	Strongly disagree	8	4.3
2	Disagree	5	2.7
3	Slightly disagree	17	9.1
4	Between	43	23.1
5	Slightly agree	25	13.4
6	Agree	38	20.4
7	Strongly agree	50	26.9
Total		186	100

Table 4.22: Although schools have many rules and restrictions, students still like schools. (Q22)

From the table above, it can be noted that 60% of gifted students still liked their school, although it had many rules and restrictions. Only 16.1% of the students did not like their school and about 23% of the students neither agreed nor disagreed with the sentiment.

4.4.2 The power of teachers

		Frequency	Percentage
1	Strongly disagree	6	3.2
2	Disagree	4	2.2
3	Slightly disagree	8	4.3
4	Between	34	18.3
5	Slightly agree	22	11.8
6	Agree	39	21
7	Strongly agree	73	39.2
Total		186	100

Table 4.23: Teachers have more power than students. (Q23)

The overwhelming majority of students feel that the teachers still have a strong power over students - 72% of gifted students endorsed this statement and only 9.7% indicated the reverse. Just over 18% of students in the survey neither agreed nor disagreed in this respect.

4.4.3 Decision making and teachers

		Frequency	Percentage
1	Strongly disagree	23	12.4
2	Disagree	12	6.5
3	Slightly disagree	33	17.7
4	Between	45	24.2
5	Slightly agree	35	18.8
6	Agree	13	7.0
7	Strongly agree	25	13.4
Total		186	100

Table 4.24: Teachers decide everything at a school. (Q24)

According to the results presented in table 4.24, teachers are seen by students to exercise a high degree of power in relation to decision making in the learning context - 39.2% of respondents felt that teachers decided anything they wanted within school. Only 36.6%

disagreed with a statement to that effect while 24.2% of the students neither agreed nor disagreed.

4.4.4 Teachers making learning interesting

		Frequency	Percentage
1	Strongly disagree	10	5.4
2	Disagree	10	5.4
3	Slightly disagree	21	11.3
4	Between	58	31.2
5	Slightly agree	29	15.6
6	Agree	28	15.1
7	Strongly agree	30	16.1
Total		186	100

Table 4.25: My teachers make learning interesting. (Q25)

Table 4.25 indicates that the majority (64.8%) of gifted students believed that their teachers made learning interesting and enjoyable and that 22.1% believed the contrary. On the other hand, 31.2% of respondents neither agreed nor disagreed with the sentiment.

4.4.5 Encouragement from teachers

		Frequency	Percentage
1	Strongly disagree	6	3.2
2	Disagree	3	1.6
3	Slightly disagree	15	8.1
4	Between	30	16.1
5	Slightly agree	21	11.3
6	Agree	58	31.2
7	Strongly agree	53	28.5
Total		186	100

Table 4.26: Students usually receive positive responses from teacher. (Q26)

This table shows that a large proportion of gifted students in the survey (71%) believed that they received encouraging responses from the teachers. Fewer than 13% of the students replied that they did not receive such positive responses and 16.1% neither agreed

nor disagreed in this respect. Overall, these figures suggest that most students perceive a good relationship between students and teachers.

4.4.6 Students' thoughts on 'gifted' programmes

		Frequency	Percentage
1	Strongly disagree	19	10.2
2	Disagree	7	3.8
3	Slightly disagree	7	3.8
4	Between	30	16.1
5	Slightly agree	25	13.4
6	Agree	34	18.3
7	Strongly agree	64	34.4
Total		186	100

Table 4.27: I do well in this school because I like gifted students' programmes. (Q27)

The table above suggests that 66.1% of gifted students sought to do well because they were favourably disposed towards the specialised programmes at their school. Just fewer than 18% held contrary views and 16.1% neither agreed nor disagreed. This clearly underlines the importance of these programmes in encouraging gifted students to strive to do well in their studies.

4.4.7 The idea of changing school

		Frequency	Percentage
1	Strongly disagree	73	39.2
2	Disagree	28	15.1
3	Slightly disagree	15	8.1
4	Between	27	14.5
5	Slightly agree	12	6.5
6	Agree	11	5.9
7	Strongly agree	20	10.8
Total		186	100

Table 4.28: I would achieve better marks if I changed school. (Q28)

Table 4.28 indicates that 62.4% of gifted students in the survey did not believe they would achieve better marks were they to change schools (23.2% were of the opposite opinion). A

further 14.5% of the students neither endorsed nor contested the idea that they would receive higher marks were they to transfer to another school. The overall trend suggests that gifted students are either confident of their abilities irrespective of the schools in which they find themselves or that they feel that there is no difference in the support provided in different schools.

4.4.8 Academic extension or enrichment activities

		Frequency	Percentage
1	Strongly disagree	45	24.2
2	Disagree	16	8.6
3	Slightly disagree	15	8.1
4	Between	32	17.2
5	Slightly agree	18	9.7
6	Agree	25	13.4
7	Strongly agree	35	18.8
Total		186	100

Table 4.29: My school has enough academic extension or enrichment activities for gifted pupils after school. (Q29)

According to the findings presented in table 4.29, 41.9% of gifted students thought that academic extension or enrichment activities were sufficient but a comparable proportion thought otherwise (17.2% of students were neutral in this respect). It should however be noted that my own notes, taken during the fieldwork, indicate a generally positive orientation among gifted students towards extension and enrichment activities.

4.4.9 Non-academic extension and enrichment activities

		Frequency	Percentage
1	Strongly disagree	62	33.3
2	Disagree	28	15.1
3	Slightly disagree	18	9.7
4	Between	35	18.8
5	Slightly agree	12	6.5
6	Agree	12	6.5
7	Strongly agree	19	10.2
Total		186	100

Table 4.30: My school has enough non academic extension or enrichment activities for gifted pupils after school. (Q30)

Table 4.30 shows that the majority of students in the survey indicated that their school did not have enough non-academic extension or enrichment activities for gifted pupils after school. Just over 85% of gifted students replied that these programmes were not sufficient while 23.2% of them felt they were appropriate in extent. About 17% of gifted students were neutral on this issue. But the bulk of responses suggest under-provision of enrichment or extension activities from the point of view of gifted students. This sentiment was echoed by data from my own fieldwork notes – a source that also shows that some teachers and workers had only a limited awareness of these programmes.

4.5 Section Four: Learning strategies

This section focuses on the strategies employed and resources drawn upon by the gifted students in the sample in relation to their learning. Is there anything distinctive or remarkable about such strategies or provision that have to be considered in relation to the policies and initiatives oriented towards supporting these students?

4.5.1 Students thinking during class

		Frequency	Percentage
1	Strongly disagree	15	8.1
2	Disagree	23	12.4
3	Slightly disagree	16	8.6
4	Between	48	25.8
5	Slightly agree	26	14.0
6	Agree	29	15.6
7	Strongly agree	29	15.6
Total		186	100

Table 4.31: During class time students often miss important points because of thinking about other things. (Q31)

From this table, it is clear that a large proportion of gifted students report that they often missed important points within lessons because they were thinking about other things. Just over 45% of gifted students agreed with this statement and just 29.1% of them disagreed (about 26% did not have a view one way or the other). These findings perhaps suggest that one of the reasons why such a large number of students are distracted during class is because a number of subjects at school and teaching methods usually focus on memorization while discouraging discussion – factors that may lessen concentration on the part of students Alternatively, the content of the monologues by teachers may not be particularly challenging for gifted students.

4.5.2 Formulating questions while reading

		Frequency	Percentage
1	Strongly disagree	13	7.0
2	Disagree	15	8.1
3	Slightly disagree	15	8.1
4	Between	29	15.6
5	Slightly agree	17	9.1
6	Agree	31	16.7
7	Strongly agree	66	35.5
Total		186	100

Table 4.32: I formulate questions while reading. (Q32)

This table shows that most of the gifted students in the survey formulate questions to help them focus on reading. Over 61% of them formulated such questions but only 23.2%

reported that they did not adopt this strategy. About 16% of the students did not have an opinion either way in response to this statement.

4.5.3 Students think through a topic when studying

		Frequency	Percentage
1	Strongly disagree	2	1.1
2	Disagree	2	1.1
3	Slightly disagree	3	1.6
4	Between	15	8.1
5	Slightly agree	11	5.9
6	Agree	36	19.4
7	Strongly agree	117	62.9
Total		186	100

Table 4.33: Students think through a topic when studying. (Q33)

This table indicates that a high percentage of gifted students (about 88%) thought reflectively and reactively whilst reading. Only 3.8% of them reported a more mechanical approach to reading. Approximately 8% were neutral in relation to this issue.

4.5.4 Student notes in class to avoid confusion

		Frequency	Percentage
1	Strongly disagree	13	7.0
2	Disagree	10	5.4
3	Slightly disagree	18	9.7
4	Between	31	16.7
5	Slightly agree	26	14.0
6	Agree	35	18.8
7	Strongly agree	53	28.5
Total		186	100

Table 4.34: Student notes in class to avoid confusion. (Q34)

It would appear that most gifted students take notes in class when they become confused, and they make sure they clarify matters afterwards. About 61% of gifted students did this while 22.1% of them did not take such notes. Nearly 17% of students neither agreed nor disagreed.

4.5.5 Students attending school

		Frequency	Percentage
1	Strongly disagree	3	1.6
2	Disagree	2	1.1
3	Slightly disagree	2	1.1
4	Between	17	9.1
5	Slightly agree	15	8.1
6	Agree	54	29.0
7	Strongly agree		
Total		186	100

Table 4.35: Students attending school regularly (Q35)

The table here suggests that a large proportion of gifted students attend school regularly (87.1%) and just 3.8% did not regularly attend. 9.1% of the students did not express agreement or disagreement in this regard.

4.5.6 Students' revision before an exam

		Frequency	Percentage
1	Strongly disagree	40	21.5
2	Disagree	22	11.8
3	Slightly disagree	18	9.7
4	Between	36	19.4
5	Slightly agree	32	17.2
6	Agree	13	7.0
7	Strongly agree	25	13.4
Total		186	100

Table 4.36: Students' reporting sufficient time for revision before an exam (Q36)

The figures above that some gifted students find enough time to review their notes or to read before an exam - 43% of them were of this view but 37.6% thought the opposite.

4.5.7 Students work on own without help from anyone.

		Frequency	Percentage
1	Strongly disagree	35	18.8
2	Disagree	31	16.7
3	Slightly disagree	13	7.0
4	Between	37	19.9
5	Slightly agree	20	10.8
6	Agree	25	13.4
7	Strongly agree	25	13.4
Total		186	100

Table 4.37: Students work on their own without help from anyone. (Q37)

This table indicates that the larger proportion - approximately 43% - of gifted students do not try to do their work on their own and without help from anyone (in particular, when they have difficulty learning class material). Around 38% % of the sample indicated that they did not communicate with anyone and solved academic problems alone. Approximately 20% were neutral in their responses.

4.5.8 Students asking for help from other students

		Frequency	Percentage
1	Strongly disagree	20	10.8
2	Disagree	14	7.5
3	Slightly disagree	18	9.7
4	Between	40	21.5
5	Slightly agree	32	17.2
6	Agree	34	18.3
7	Strongly agree	28	15.1
Total		186	100

Table 4.38: Students asking for help from other students. (Q38)

Table 4.38 shows that a number of gifted students ask their classmates for help when they could not understand the material in the course - 50.6% of the students asked for such assistance and 28% of them did not ask their classmates for help when they could not understand the material. Just over 21% of indicated neutrality in relation to this statement.

4.5.9 Students attending academic extension or enrichment activities

		Frequency	Percentage
1	Strongly disagree	46	24.7
2	Disagree	23	12.4
3	Slightly disagree	18	9.7
4	Between	27	14.5
5	Slightly agree	11	5.9
6	Agree	17	9.1
7	Strongly agree	44	23.7
Total		186	100

Table 4.39: Students attending academic extension or enrichment activities. (Q39)

This table indicates that a large number of gifted students (64.8%) do not attend academic extension or enrichment activities for gifted pupils after school (38.7% of respondents indicated they attended these programmes). Nearly 15% of the students gave an inconclusive response.

4.5.10 Students attending non academic extension or enrichment activities

		Frequency	Percentage
1	Strongly disagree	56	30.1
2	Disagree	33	17.7
3	Slightly disagree	13	7.0
4	Between	28	15.1
5	Slightly agree	15	8.1
6	Agree	16	8.6
7	Strongly agree	25	13.4
Total		186	100

Table 4.40: Students attending non academic extension or enrichment activities. (Q40)

A significant proportion of the sample (54.8%) did not attend non-academic extension or enrichment activities for gifted pupils after school. Only 30.1% of the students attended these types of programme while 15.1% did not give a direct answer one way or the other. Whether these figures reflected the availability or relative attractiveness of such programmes was not, however, explored in this suite of questions.

4.5.11 Enjoyment of extension programmes

		Frequency	Percentage
1	Strongly disagree	18	9.7
2	Disagree	6	3.2
3	Slightly disagree	7	3.8
4	Between	31	16.7
5	Slightly agree	19	10.2
6	Agree	28	15.1
7	Strongly agree	77	41.4
Total		186	100

Table 4.41: I enjoy extension programmes. (Q41)

But of those students who attended extension programmes about two-thirds reported that they enjoyed such provision and 16.7% took the opposite view. Yet the preceding tables (tables 4.39 and 4.40 above) show that a majority of gifted students do not attend these programmes. This may be due to the perceived weaknesses of these programmes, their non-availability in most schools or – possibly – family attitudes towards the activities.

4.5.12 Do extension programmes help students to learn more?

		Frequency	Percentage
1	Strongly disagree	14	7.5
2	Disagree	2	1.1
3	Slightly disagree	12	6.5
4	Between	24	12.9
5	Slightly agree	19	10.2
6	Agree	38	20.4
7	Strongly agree	77	41.4
Total		186	100

Table 4.42: Do extension programmes help students to learn more? (Q42)

This table highlights a belief among most gifted students (72%) that extension programmes are useful to their studies. Just over 15% thought otherwise while 12.9% neither agreed nor disagreed. This accords with the earlier observation, made on the basis of my field notes, that gifted students often enjoy and have an interest in these programmes but that there are not enough programmes such activities in most Saudi schools.

4.6 Section Five: Social issues

Gifted students do not live in a social vacuum. As with the issue of familial encouragement and support, the social circles of these students may provide a contextual insight. Are there any distinct characteristics in the social life of gifted students? Or are attendant variables largely ephemeral in their influence?

4.6.1 Number of friends

		Frequency	Percentage
1	Strongly disagree	2	1.1
2	Disagree	2	1.1
3	Slightly disagree	1	0.5
4	Between	14	7.5
5	Slightly agree	5	2.7
6	Agree	24	12.9
7	Strongly agree	138	74.2
Total		186	100

Table 4.43: I have many friends (Q43)

This table shows that a large proportion of gifted students have a considerable number of friendships - 89.8% of the students reported having ‘many’ friends and just 2.7% of them indicated just a few friendships. Parenthetically, however, we should perhaps be wary of findings that stem from asking adolescents to essentially report on their popularity and social skills.

4.6.2 Classmates

		Frequency	Percentage
1	Strongly disagree	4	2.2
2	Disagree	3	1.6
3	Slightly disagree	7	3.8
4	Between	18	9.7
5	Slightly agree	14	7.5
6	Agree	38	20.4
7	Strongly agree	102	54.8
Total		186	100

Table 4.44: I like my classmates. (Q44)

This table shows that 82.7% of gifted students in the survey reported liking their classmates. Less than 8% suggested otherwise. Clearly, there are - again - potential problems in effectively asking respondents to report on their own sociability or popularity. But relationships with peers, at a speculative level, may be an important factor in the experience of gifted students within educational settings (an issue that would, ideally, merit further investigation).

4.6.3 Enjoying parties

		Frequency	Percentage
1	Strongly disagree	3	1.6
2	Disagree	3	1.6
3	Slightly disagree	11	5.9
4	Between	27	14.5
5	Slightly agree	21	11.3
6	Agree	39	21.0
7	Strongly agree	82	44.1
Total		186	100

Table 4.45: Enjoying parties. (Q45)

This table shows that a large proportion (76.4%) of gifted students like to go to parties and that only 9.1% did not. Whether these figures differ markedly from the broader student population is not known.

4.6.4 Visiting other families

		Frequency	Percentage
1	Strongly disagree	2	1.1
2	Disagree	1	0.5
3	Slightly disagree	6	3.2
4	Between	15	8.1
5	Slightly agree	11	5.9
6	Agree	37	19.9
7	Strongly agree	114	61.3
Total		186	100

Table 4.46: I am happy when I visiting relatives. (Q46)

This table shows that most gifted students are happy to visit their relatives - 87.1% of the students enjoyed these visits while 4.8% of them did not. Just over 8.1% of the students neither agreed nor disagreed in this respect. These results and those reported above suggest that, on the whole, gifted students have the ability to establish and appreciate good social relationships. They are, for the most part, neither isolated nor socially awkward it would seem.

4.6.5 Attending social activities

		Frequency	Percentage
1	Strongly disagree	3	1.6
2	Disagree	4	2.2
3	Slightly disagree	13	7
4	Between	28	15.1
5	Slightly agree	22	11.8
6	Agree	39	21
7	Strongly agree	77	41.4
Total		186	100

Table 4.47: I like to attend social activities (Q47)

Indeed, this table indicates that most gifted students (74.2%) like participating in social activities. About 11% did not while just over 15.1% neither agreed nor disagreed with the relevant statement.

4.6.6 Identifying students for help if necessary

		Frequency	Percentage
1	Strongly disagree	10	5.4
2	Disagree	00	00
3	Slightly disagree	5	2.7
4	Between	25	13.4
5	Slightly agree	18	9.7
6	Agree	46	24.7
7	Strongly agree	82	44.1
Total		186	100

Table 4.48: I try to identify students in this class whom I can ask for help if necessary (Q48)

But what of the more instrumental aspects of social relationships with classmates? A large proportion (almost 80%) of gifted students indicated an interest in identifying students in their classes whom they could ask for help if necessary. Only about 8% of respondents indicated a deliberate aversion to this strategy.

4.7 Section Six: Activities

This section will discuss to what extent gifted students participate in academic or non-academic activities after classes. How central, in other words, are academic activities to the gifted students beyond the confines of school?

4.7.1 The number of hours per week on academic activities

Activities		Reading		Finishing homework		Taking notes		Group discussion		Study in the library		Memorise Quran		Others	
Hours		Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per
0	Less	5	2.7	3	1.6	25	13.4	26	14	32	17.2	10	5.4	128	68.8
1	One	48	25.8	68	36.6	83	44.6	67	36	83	44.6	44	23.7	12	6.5
2	Two	25	13.4	36	19.4	27	14.5	21	11.3	27	14.5	19	10.2	5	2.7
3	Three	27	14.5	27	14.5	21	11.3	26	14	14	7.5	18	9.7	6	3.2
4	Four	16	8.6	15	8.1	10	5.4	15	8.1	9	4.8	20	10.8	7	3.8
5	Five	26	14	10	5.4	6	3.2	6	3.2	4	2.2	19	10.2	5	2.7
6	Six	8	4.3	4	2.2	7	3.8	3	1.6	6	3.2	4	2.2	3	1.6
7	Seven	15	8.1	8	4.3	1	0.5	8	4.3	2	1.1	13	7	5	2.7
8	Eight	9	4.8	5	2.7	2	1.1	3	1.6	4	2.2	4	2.2	1	0.5
9	Nine	1	0.5	4	2.2	00	00	3	1.6	1	0.5	8	4.3	4	2.2
10	Ten	3	1.6	5	2.7	4	2.2	5	2.7	3	1.6	13	7.0	3	1.6
11	More	3	1.6	1	0.5	00	00	3	1.6	1	0.5	14	7.5	7	3.8
Total		186	100	186	100	186	100	186	100	186	100	186	100	186	100

Table 4.49: The number of hours per week on academic activities. (Q49)

This table indicates the number of hours per week that gifted students in the survey report that they devote to different academic activities. Just over 62% of respondents, for

example, study between 1 and 4 hours per week while 33.3% of them did so for between 5 and 10 hours. At the extremes, 2.7% indicated that they did no study while 1.6% of respondents reported that they studied for more than 11 hours per week. In modal terms, nearly 80% of the gifted students spent 1 to 4 hours each week (1.6% spent less than an hour on homework and 19.5% spent between 5 and 10 hours). The results also indicate that 75.8% of the students occupied between 1 and 4 hours per week writing notes but that 13.4% of them did not write any notes. Nearly 11% of them wrote notes between 5 to 10 hours a week.

These results also suggest that 69.4% of students devoted between 1 and 4 hours in group discussion related to study – an activity that occupied 1.6% of the sample for more than 11 hours a week. In addition, 71.4% of the students went to the library for between 1 and 4 hours per week, while 17.2% did not go at all. A further 10.8% of students spent between 5 and 10 hours in the library with 1.6% devoting more than 11 hours a week to this activity. Attempting to memorise the Quran occupied between 1 and 4 hours for over 54% of students – an activity that occupied 7.5% of respondents for more than 11 hours a week. "Other" activities detained 16.2% of respondents for between 1 and 4 hours weekly while this non-specific category encompassed between 5 and 10 hours per week for 11.3%.

In summary, it is evident that most gifted students spend a significant proportion of their time studying - 33.3% reported 5 and 10 hours per week in this respect. A further 32.9% of students occupied between 5 and 10 hours a week memorising the Quran. This gives an indication of religiosity in this region. After that, 19.5% of the students occupied between 5 and 10 hours finishing homework. This gives an indication of their interest in homework. About 15% of the students occupied between 5 to 10 hours in group discussion and 11.3% on other programmes. Also, 10.8% of them went to the library and took notes.

4.7.2 The number of hours per week on non-academic activities

Activities		Meeting with friends		Playing computer games		Chatting in the Internet		Going out with friends		Sports		Doing a part-time job		Others	
Hours		Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per	Freq	Per
0	Less	14	7.5	8	4.3	71	38.2	28	15.1	9	4.8	139	74.7	143	76.9
1	One	24	12.9	29	15.6	52	28.0	41	22.0	20	10.8	5	2.7	10	5.4
2	Two	17	9.1	25	13.4	7	3.8	23	12.4	27	14.5	11	5.9	2	1.1
3	Three	23	12.4	13	7.0	15	8.1	13	7.0	21	11.3	5	2.7	4	2.2
4	Four	20	10.8	25	13.4	6	3.2	15	8.1	24	12.9	8	4.3	2	1.1
5	Five	13	7.0	21	11.3	6	3.2	18	9.7	15	8.1	7	3.8	7	3.8
6	Six	18	9.7	14	7.5	4	2.2	8	4.3	7	3.8	2	1.1	.00	.00
7	Seven	10	5.4	8	4.3	7	3.8	10	5.4	17	9.1	5	2.7	2	1.1
8	Eight	13	7.0	10	5.4	5	2.7	6	3.2	5	2.7	.00	.00	1	.5
9	Nine	14	7.5	6	3.2	1	.5	1	.5	4	2.2	.00	.00	3	1.6
10	Ten	20	10.8	10	5.4	3	1.6	11	5.9	15	8.1	2	1.1	6	3.2
11	More	00	00	17	9.1	9	4.8	12	6.5	22	11.8	2	1.1	6	3.2
Total		186	100	186	100	186	100	186	100	186	100	186	100	186	100

Table 4.50: The number of hours per week spent on non-academic activities. (Q50)

Table 4.50 shows the number of hours each week that gifted students devoted to non-academic activities. Just over 47% of the students met friends for between 5 and 10 hours per week while 45.2% of them devoted less than 5 hours to this activity. A further 7.5% did not meet any friends or, if they did so, devoted less than one hour a week to this activity. In a related regard, 49.5% of the students went out with friends for between 1 and 4 hours per week while nearly 30% of them went out with friends for between 5 and 10 hours of their time. Just over 15% did not go out with friends. In another regard 49.4% of the students devoted between 1 to 4 hours per week to computer games while 37.1% of them devoted between 5 and 10 hours to this activity. Only 4.3% spent less than one hour per week on computer games. Sport occupied 49.5% of the students for between 1 and 4 hours per week – something that occupied 34% of respondents for between 5 and 10 hours

per week. The results also show that 43.1% of the students chatted on the Internet for between 1 and 4 hours per week (38.2% of them did not chat at all on the Internet). This activity occupied 14% of the students for between 5 and 10 hours chatting and 4.8% for more than 11 hours a week. The results also indicate that 15.6% of gifted students occupied between 1 and 4 hours per week doing a part-time job.

To summarise, we can see that most gifted students spend their spare time with friends (47.4% of them spent between 5 to 10 hours per week in this respect). And 29% of students devoted between 5 and 10 hours to going out with friends while 14% of them used the internet for chatting. About 34% of the students occupied between 5 to 10 hours on sport. This perhaps underlines the previous observation that gifted students have good relationships with their friends and a healthy social life. At the same time, however, 37.1% of students occupied between 5 and 10 hours a week on computer games.

Through the results of the preceding tables, it can be observed that gifted students in these schools spend time on non-academic activities more than academic activities. This highlights the importance of reviewing education policy, the method of teaching students, educating students and their families and the management and distribution of such activities.

4.8 Section Seven: Self-reflection

This section of the chapter focuses upon self-reflection on the part of the gifted students in the survey with regard to the idea of 'giftedness', its identification and achievement in different academic subjects.

4.8.1 Self-rating of giftedness

		Frequency	Percentage
1	Yes	148	79.6
2	No	2	1.1
3	Don't know	36	19.4
Total		186	100

Table 4.51: Self-rating of giftedness. (Q51)

Through this table, it is clear that most gifted students know that they are classified as gifted. Nearly 80% indicated such awareness, 1.1% of them did not and just over 20 'did not know'.

4.8.2 Identification of giftedness

		Frequency	Percentage
1	School	77	41.4
2	Teacher	59	31.7
3	Family	26	14.0
4	Yourself	19	10.2
5	Other	5	2.7
Total		186	100

Table 4.52: Who identifies students as gifted? (Q52)

This table indicates that the label 'gifted' is most likely, perhaps not surprisingly, to be applied within educational settings - 73.1% of the gifted students in the survey were so labelled by their school or a teacher. A further 14% of believed that they were 'discovered' by their family. Just over 10% of the students indicated that they had identified themselves in this respect. Only 2.7% of them had their giftedness identified through other means.

4.8.3 The intelligence test

		Frequency	Percentage
1	Yes	160	86
2	No	10	5.4
3	Don't remember	16	8.6
Total		186	100

Table 4.53: The intelligence test. (Q53)

The results presented at table 4. 53 refer to the large percentage of gifted students identified as such through intelligence tests. Over 85% of the students had taken intelligence tests while 5.4% of them had not taken such tests. A further 9%% of the students did not remember whether they had taken such a test.

4.8.4 When were students identified as gifted?

Period prior to survey		Frequency	Percentage
1	Under 6 months	72	38.7
2	6 to 12 months	27	14.5
3	12 to 18 months	20	10.8
4	18 to 24 months	22	11.8
5	2years to 3 years	26	14
6	3 years to 4 years	7	3.8
7	Up 4 years	12	6.5
Total		186	100

Table 4.54: When were students identified as gifted? (Q54)

These figures indicate that a large number of gifted students were identified as gifted within the preceding two years at the time of the survey. Over 53% had been identified within the previous year and 22.6% had been identified between one and two years beforehand. A further 14.6% of the students were discovered between two and three years prior to the study, while only 10.3% of them were identified as gifted in a period of three years and over before the research. This illustrates the delays that can attend the identification of gifted students (particularly as most of the students were aged between 12 and 17 years).

4.8.5 The subjects in which gifted students do well

Subject		Frequency	Percentage	Subject		Frequency	Percentage
1	**Quran**[1]	24	12.9	13	**Home Economics**	00	00
2	**Hadith**[2]	2	1.1	14	**Knitting sewing**	00	00
3	**Tafsir**[3]	6	3.2	15	**Art**	2	1.1
4	**Fiqh**[4]	5	2.7	16	**Physical Education**	8	4.3
5	**Tawheed**[5]	5	2.7	17	**English**	15	8.1
6	**Grammar**	19	10.2	18	**History**	3	1.6
7	**Dictation**	3	1.6	19	**Geography**	3	1.6
8	**Literature**	4	2.2	20	**Physics**	1	.5
9	**Reading**	3	1.6	21	**Chemistry**	1	.5
10	**Writing**	2	1.1	22	**Biology**	00	00
11	**Maths**	53	28.5	23	**Other**	00	00
12	**Science**	27	14.5	**Total**		186	186

Table 4.55: The subject in which gifted students do well. (Q55)

It is clear that most gifted students report that they have always done well in mathematics - nearly 30% of those who responded did well in this subject. About 14% of them did well in sciences, 12.9% in the Quran and 10.2% of them in grammar and 10% in English. Remaining subjects elicited corresponding percentages of between 0 and 4.3%. These results are consistent with many previous studies, (in particular those that focus upon mathematics and science).

[1] Quran: The Islamic Holy Book believed to be the word of God
[2] Hadith: The Islamic Holy text attributed to the Prophet Muhammad
[3] Tafsir: Explanation of the Quran
[4] Fiqh: Islamic jurisprudence
[5] Tawheed: Islamic Creed

4.8.6 Subject receiving good marks

Subject		Freq.	%	Subject		Freq.	%
1	**Quran**	23	12.4	13	**Home Economics**	00	00
2	**Hadith**	10	5.4	14	**Knitting sewing**	00	00
3	**Tafsir**	3	1.6	15	**Art**	00	00
4	**Fiqh**	6	3.2	16	**Physical Education**	6	3.2
5	**Tawheed**	8	4.3	17	**English**	12	6.5
6	**Grammar**	21	11.3	18	**History**	2	1.1
7	**Dictation**	4	2.2	19	**Geography**	00	00
8	**Literature**	5	2.7	20	**Physics**	1	0.5
9	**Reading**	1	.5	21	**Chemistry**	00	00
10	**Writing**	3	1.6	22	**Biology**	00	00
11	**Maths**	53	28.5	23	**Other**	00	00
12	**Science**	28	15.1	**Total**		186	186

Table 4.56: The subjects in which gifted students receive good marks. (Q56)

Not surprisingly, self-reporting by students on the subjects on in which they tended to receive ‘good’ marks tended to follow a similar pattern to responses concerned with disciplines in which they thought they had tended to do ‘well’. The table above indicates that 28.5% of gifted students reported regular receipt of good marks in mathematics. Corresponding figures were 15.1% in relation to sciences, 12.4% with regard to the Quran and 11.3% in connection with grammar. Finally, 6.5% of respondents reported good marks in relation to English.

4.8.7 Subject learnt quickly

Subject		Freq.	%	subject		Freq.	%
1	**Quran**	16	8.6	13	**Home Economics**	00	00
2	**Hadith**	12	6.5	14	**Knitting sewing**	00	00
3	**Tafsir**	8	4.3	15	**Art**	1	0.5
4	**Fiqh**	10	5.4	16	**Physical Education**	4	2.2
5	**Tawheed**	7	3.8	17	**English**	5	2.7
6	**Grammar**	19	10.2	18	**History**	1	0.5
7	**Dictation**	4	2.2	19	**Geography**	1	0.5
8	**Literature**	4	2.2	20	**Physics**	1	0.5
9	**Reading**	1	0.5	21	**Chemistry**	00	00
10	**Writing**	00	00	22	**Biology**	00	00
11	**Maths**	60	32.3	23	**Other**	00	00
12	**Science**	32	17.2	**Total**		186	186

Table 4.57: The subject in which gifted students learn quickly. (Q57)

These results indicate that most gifted students reported learning quickly in mathematics, science, grammar and the Quran. The results show that 32.3% of gifted students nominated mathematics, 17.2% of them science, 10.2% grammar and 8.6% the Quran in relation to learning quickly. The remainder of the subjects scored between 0% and 6.5% in this respect.

4.8.8 The subjects in which gifted students do not do well

Subject		Freq.	%	Subject		Freq.	%
1	**Quran**	3	1.6	13	**Home Economics**	00	00
2	**Hadith**	5	2.7	14	**Knitting sewing**	00	00
3	**Tafsir**	5	2.7	15	**Art**	2	1.1
4	**Fiqh**	4	2.2	16	**Physical Education**	6	3.2
5	**Tawheed**	1	.5	17	**English**	29	15.6
6	**Grammar**	16	8.6	18	**History**	3	1.6
7	**Dictation**	4	2.2	19	**Geography**	3	1.6
8	**Literature**	2	1.1	20	**Physics**	1	0.5
9	**Reading**	00	00	21	**Chemistry**	00	00
10	**Writing**	3	1.6	22	**Biology**	00	00
11	**Maths**	16	8.6	23	**Other**	00	00
12	**Science**	7	3.8	24	**None**	76	40.9
					Total	186	186

Table 4.58: The subject in which gifted students do not do well. (Q58)

As seen in table 4.58, a proportion of gifted students did not do well in relation to some subjects. Nearly 15.6% reported difficulties in relation to the English language and 8.6% mentioned grammar (a similar figure to that for mathematics).The results perhaps highlight the importance of reviewing the manner of teaching English in these schools. I noted from

my observations, for example, that the English curriculum focuses on grammar intensively and that the teachers tend to speak Arabic during English classes.

4.8.9 The subject that gifted students like

Subject		Freq.	%	Subject		Freq.	%
1	**Quran**	26	14.0	13	**Home Economics**	00	00
2	**Hadith**	2	1.1	14	**Knitting sewing**	00	00
3	**Tafsir**	7	3.8	15	**Art**	4	2.2
4	**Fiqh**	5	2.7	16	**Physical Education**	20	10.8
5	**Tawheed**	8	4.3	17	**English**	12	6.5
6	**Grammar**	10	5.4	18	**History**	2	1.1
7	**Dictation**	00	00	19	**Geography**	2	1.1
8	**Literature**	3	1.6	20	**Physics**	2	1.1
9	**Reading**	00	00	21	**Chemistry**	00	00
10	**Writing**	3	1.6	22	**Biology**	1	0.5
11	**Maths**	54	29	23	**Other**	00	00
12	**Science**	25	13.4	**Total**		186	186

Table 4.59: The subjects that gifted students like. (Q59)

The results in the table above show that significant proportions of gifted students prefer mathematics (29%), the Quran (14%), sciences (13.4%) and grammar (10.8%) respectively. Other subjects elicited a rating of between 0 and 6.5%.

4.8.10 Students' career aspirations

		Frequency	Percentage
1	**Personal work**	7	3.8
2	**Business person**	6	3.2
3	**Teacher**	28	15.1
4	**Civil servant**	1	0.5
5	**Engineer**	30	16.1
6	**University lecturer**	27	14.5
7	**Doctor**	57	30.6
8	**No job (at home)**	00	00
9	**Others**	30	16.1
Total		186	100

Table 4.60: Students' occupation in the future. (Q60)

This table shows that the largest proportion of the gifted students who participated in the survey, 30.6%, aspired to be doctors. About 16% expressed a preference for engineering, 15.1% for teaching and a comparable proportion listed a range of other professions. These results indicate the high ambitions of gifted students - most of them prefer demanding occupations and do not consider the possibility of unwaged economic activity.

4.9 Summary of the findings

This chapter presented the findings of the first part of the primary research – a questionnaire administered to 186 gifted students aged between 12 and 17 years in the period April to June 2006. The broader resonances of the findings are considered in chapter seven. But some of the results are summarised here ahead of findings reported in the next two chapters that pertain to a parallel survey of 'professionals' involved in supporting gifted students.

In biographical terms most of the gifted students in the sample had parents with higher education qualifications and fathers tended to be more highly educated than mothers. Parental expectations of the gifted students were high and most of the students were motivated in part by a desire to please their parents. Over a third of these students received help with their studies from both parents but 36% tended to work on their own. And, in keeping with findings from other studies, about half of the gifted students were first or

second-born in their families. The majority of the students (nearly 80%) identified themselves as gifted (although about 53% had been formally characterised as 'gifted' within the year preceding the research). The largest proportion of these students (about 30%) aspired to be Doctors. A comparable proportion envisaged a career in education at various levels and 16% wanted to become engineers. In non-academic terms most of the gifted students had a 'large' number of friends and only 2.7% reported having few friends. Most of the gifted students (47.4%) met their friends for 5-10 hours per week. Approximately three-quarters enjoyed going to parties, a similar proportion enjoyed 'social' activities and nearly 90% enjoyed visiting relatives (an activity with a particular resonance in Saudi culture).

In terms of the learning environment 60% of the students liked their school, even in the face of many rules and restrictions, and the majority of believed that their teachers made learning interesting and provided broadly positive feedback. Most of the gifted students did not believe that they would have a better mark if they changed school but the sample was split in relation to whether they thought their schools provided sufficient academic extension or enrichment activities after school. Over 80%, however, reported positive relationships with their classmates. As far as parental help with studies, most of the students receive help from both of the parents (37.6%) and 36% work on their own at home. The students themselves were ambitious (with most aiming for degrees), tended to regard education as fundamental to the achievement of their aims (and over 85% were confident in their academic abilities). About half of the students reported enjoying challenging academic tasks and a similar proportion did not 'worry' when answering questions (indeed, about 70% felt that school work tended to be 'easy').

With specific regard to learning, the majority of gifted students spend between 1-4 hours a week studying and a similar amount of time to homework and academic-related group discussion. Among approaches to learning adopted by students, most of the respondents reported formulating questions to help themselves focus on their reading. Over 88% indicated that they reflected on a topic while reading. Most of the gifted students preferred to take notes when they were confused in class in order to clarify matters afterwards. As far as preparation for exams is concerned, about 43% of the students stated that they have enough time to read or review their notes before an exam, but 37.6% indicated otherwise. And just over half of the students asked for help from other students, With regard to academic extension or enrichment activities, most (64.8%) of the gifted students replied that they do not attend any such sessions (although two-thirds of the attendees described them as 'enjoyable'.

CHAPTER 5

THE RESULTS OF THE STUDY

Regarding the Practitioner Questionnaire

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Regarding the Practitioner Questionnaire

5.1 Introduction

This chapter focuses upon results from quantitatively oriented survey of 52 professionals who worked with the gifted students upon which the research centred – head teachers (n=12); teachers (n=16); social workers (n=14) and administrators/designers of gifted programmes and other related personnel (n=10). The chapter, in largely narrative form ahead of discussion later in chapter seven, is in two sections. The first concentrates upon survey results pertaining to programmes and strategies designed to identify gifted students. The second section considers results in relation to the provision of programmes for gifted students (including academic and non-academic extension and enrichment activities) the role of the social workers, training in the gifted field and attendant policies at the level of individual schools.

5.2 Section One: Programme for the Identification of Gifted Students

Perhaps the most obvious starting point for this phase of the research was to concentrate on how "gifted" students are identified in Saudi Arabia. Results in this respect reflect responses from those practitioners concerned with provision for gifted students (rather than the 'official' initiatives outlined towards the beginning of the thesis).

5.2.1 'Does the Ministry of Education have a definition of 'giftedness' in relation to students?'

Answer		Frequency	Percentage
1	Yes	36	69.2
2	No	00	00
3	Don't know	16	30.8
Total		52	100

Table 5.1: Definition of a gifted student in the Ministry of Education (Q1)

These practitioners were first asked if they were aware of any definition that the Ministry of Education used in relation to the idea of giftedness on the part of students. As table 5.1 indicates, the majority of respondents (just over 69%) in schools overseen by the Ministry

of Education thought that the Ministry had such a definition. Of the remaining 31% all respondents claimed not to know (rather than denying the existence of such a policy).

5.2.2 'For how long has your school been identifying gifted and talented students on a programmatic basis?'

Length		Frequency	Percentage
0	[unidentified time]	3	5.8
1	2006-07	15	28.8
2	2005-06	5	9.6
3	2004-05	10	19.2
4	2003-04	5	9.6
5	2002-03	8	15.4
6	2001-02	1	1.9
7	2000 or earlier	00	00
8	Don't know	5	9.6
Total		52	100

Table 5.2: Point at which programme for identification of gifted students was established programme in schools. (Q2)

Results suggest that programmatic approaches to the identification of gifted students tended to be quite recent in nature. As table 5.2 indicates, nearly 57% of respondents reported that such programmes had been in existence for between one and three years while only 1.9% suggested that a programme had been in existence for five or more years. Only about 6% of these respondents claimed that corresponding schools had no such programmes and – interestingly – 10% of this sample claimed not to know. This last figure is not particularly large but does appear surprising given the purposive nature of the sample.

5.2.3 'Has the identification procedure in your school changed since it was introduced?'

Answer		Frequency	Percentage
0	No Answer	3	5.8
1	Yes	7	13.5
2	No	30	57.7
3	Don't know	12	23.1
Total		52	100

Table 5.3: A change in the identification programmes in schools since they were introduced. (Q3)

From table 5.3 it is clear that a large number of the respondents (57.7%) believe that programmes for the identification of gifted students with which they were familiar had not changed since their introduction. A further 13.5% suggested some change in these programmes but just over 23% "did not know" in that regard. Again, this last figure is unexpected to a degree given the specialist orientation of these informants (although information on the length of time informants had been employed in relevant settings was not explored).

5.2.4 'What methods do you use to identify gifted students?'

Type of method		YES		No		Total	
		Freq	Per	Freq	Per	Freq	Per
1	Nominations from primary schools	12	23.1	40	76.9	52	100
2	Checklist of characteristics of the highly able	10	19.2	42	80.8	52	100
3	Teacher nomination	17	32.7	35	67.3	52	100
4	Peer nomination	0	0	52	100	52	100
5	Assessment results	7	13.5	45	86.5	52	100
6	Results from standardised tests such as CATs, MIDYIS, YELIS, ALIS	21	40.4	31	59.6	52	100
7	Standardised reading / spelling tests, etc	1	1.9	51	98.1	52	100
8	Verbal reasoning, intelligence, creativity tests	22	42.3	30	57.7	52	100
9	Parental nomination	6	11.5	46	88.5	52	100
10	Specialist teacher nomination	6	11.5	46	88.5	52	100
11	Self- nomination	5	9.6	47	90.4	52	100
12	Departmental nomination	3	5.8	49	94.2	52	100
13	Other nomination	2	3.8	50	96.2	52	100
14	Other methods	2	3.8	49	94.2	52	100

Table 5.4: Type of methods to identify gifted students. (Q5)

As table 5.4 indicates, the most widely used methods or criteria used by schools to identify gifted students centred upon verbal reasoning, intelligence, creativity tests and results from standardised tests. Indeed, about 40% of informants cited standardised tests, such as CATs, MIDYIS, YELIS, ALIS and approximately a third mentioned nominations by teachers. A smaller proportion, just over 23%, cited nominations by primary schools in relation to students progressing to middle/secondary level education. A comparable proportion of responses centred on checklists used to identify the highly able or gifted while 11.5% mentioned nominations by parents (a similar figure indicated nominations by specialist teachers). Whether this plurality strengthened or weakened the chances of identifying gifted students at an early stage remains unclear.

5.2.5 'Who should be notified about gifted children?'

The sectors		Frequency	Percentage
1	Department of Gifted in Education Administration	34	65.4
2	School Administration	10	19.2
3	King Abdulziz and his Companions Foundation for Gifted Students	2	3.8
4	The General Administration for Gifted Students in the Ministry of Education	6	11.5
5	Other	00	00
Total		52	100

Table 5.5: Sectors responsible for communication concerning gifted students. (Q6)

If gifted students merit specific policies and programmes, the issue of who should be notified of their abilities and needs comes to the fore. Respondents were asked to indicate the institutions that could reasonably be expected to register the existence of such students. Table 5.5 indicates that two-thirds of the respondents thought that responsibility for the registration of gifted students should rest with the Department of Gifted in the Education Administration and 11.5% suggested General Administration for gifted Students in the Ministry of Education. Just over 19% of respondents attributed this responsibility to school administration functions while a far smaller proportion of respondents, about 4%, thought this role should be filled by the King Abdulziz and his Companions Foundation for gifted students. These findings, coupled with the variety of methods used to identify gifted students, highlighted an apparent need for relevant parties to communicate in a more systemised manner.

5.2.6 'Do you keep a written record of the names of gifted students?'

Answer		Frequency	Percentage
1	Yes	41	78.8
2	No	11	21.2
Total		52	100

Table 5.6: Written record of the names of gifted students. (Q7)

Table 5.6 suggests nearly 80% of schools discussed by respondents kept a record of gifted students. It is not immediately clear why over a fifth of schools mentioned by respondents did not keep such records.

5.2.7 Estimated percentage of gifted pupils

Percentage of pupils		Frequency	Percentage
0	Don't know	17	32.7
1	Under 2%	13	25
2	From 2% to 4%	11	21.2
3	Up 4%to 6%	2	3.8
4	Up 6% to 8%	2	3.8
5	Up 8%	7	13.5
Total		52	100

Table 5.7: The percentage of pupils on record. (Q8)

Table 5.7 shows that a large proportion (nearly 33%) of workers in the schools did not know the number of gifted students in their corresponding institutions. Of those able to cite a figure in this regard, 25% of them believed the proportion of gifted students was under 2%. Just over a fifth of respondents claimed that the figure was 2%-4% while a further 7.6% cited 4%-8%. Over 13% of respondents went further and suggested that the proportion of gifted students was over 8%.

5.3 Section Two: Provision

This section of the chapter turns to responses in the survey concerned with provision for gifted students in areas such as academic and non-academic enrichment and extension activities, training in the field of provision for gifted students and related policies adopted by individual schools.

5.3.1 'Does the school provide academic extension activities for gifted pupils during school hours?'

Answer		Frequency	Percentage
1	Yes	26	50.0
2	No	23	44.2
3	Don't know	3	5.8
Total		52	100

Table 5.8: Schools providing academic extension for gifted pupils during school hours. (Q9)

Results indicate that half of the respondents reported that corresponding schools provided academic extension activities for gifted pupils during school hours (Table 5.8). A further 40% suggested that these programmes did not exist in those schools with which they dealt and that just fewer than 6% felt they could not comment one way or the other. These results show many schools in this area do not have any type of academic extension for gifted students during school time. These figures, parenthetically, reflect those derived from my own notes in the course of the fieldwork.

5.3.2 'Does the school provide academic extension activities for gifted pupils after school?'

Answer		Frequency	Percentage
1	Yes	15	28.8
2	No	34	65.4
3	Don't know	3	5.8
Total		52	100

Table 5.9: Schools providing academic extension for gifted pupils after school. (Q10)

Table 5.9 highlights the lack of after-school academic extension for gifted pupils reported by 65% of respondents. Just 29% of respondents reported the existence of such programmes and a further 6% did not know.

5.3.3 'Does the school provide non academic extension or enrichment activities for gifted pupils after school hours?'

Answer		Frequency	Percentage
1	Yes	14	26.9
2	No	36	69.2
3	Don't know	2	3.8
Total		52	100

Table 5.10: Schools providing non academic extension or enrichment activities for gifted pupils after school. (Q11)

But what of non-academic extension or enrichment after-school activities for gifted students? Over 69% of respondents indicated the absence of such activities in corresponding schools while 27% reported the existence of initiatives in this respect (Table 5.10). A further 4% indicated that they did not know the answer.

5.3.4 'What, if any, out of school opportunities do very able children take advantage of?'

Programmes		YES		No		Total	
		Freq	Per	Freq	Per	Freq	Per
1	Thursday Master classes (Advanced Learning Centres, etc)	4	7.7	48	92.3	52	100
2	Children's University	00	00	52	100	52	100
3	Summer Schools for gifted children	26	50	26	50	52	100
4	Learning Excursion	1	1.9	51	98.1	52	100
5	Other	5	9.6	47	90.4	52	100

Table 5.11: Other out-of-school programmes for gifted students. (Q12)

Another question was more open in nature in that it invited respondents to list relevant out of school activities in which they thought gifted students engaged. As table 5.11 illustrates, 50% of respondents cited summer schools associated with the associations with which they came into contact. A relatively small proportion of respondents, just under 8%, cited the availability of Thursday Master Classes. And only 2% indicated the existence of special learning excursions for gifted children. It should however be noted that 9.6% of respondents suggested the existence of relevant programmes and activities other than those discussed above.

5.3.5 'What, if any, in school provision do you have for gifted students?'

	Type of the provision	YES		No		some	
		Freq	Per	Freq	Per	Freq	Per
1	**a**- Differentiation by class teachers	6	11.5	43	82.7	3	5.8
2	**b**- An advanced group or sitting-across-a-year group	15	28.8	36	69.2	1	1.9
3	**c**- Out-of-hours clubs	5	9.6	43	82.7	4	7.7
4	**d**- An advanced group or sitting-across-more-than-one year group	9	17.3	38	73.1	5	9.6
5	**e**- Enrichment programmes	24	46.2	22	42.3	6	11.5
6	**f**- Counselling programmes	3	5.8	46	88.5	3	5.8
7	**g**- Acceleration programmes	2	3.8	45	86.5	5	9.6
8	**h**- Other	1	1.9	50	96.2	1	1.9

Table 5.12: Type of provision in Saudi schools for gifted students. (Q13)

And what of provision for gifted students within Saudi schools during the ordinary school day? Table 5.12 paints a mixed picture in this respect. Over 46% of respondents referred to enrichment programmes and about 29% of respondents indicated the existence of an 'advanced' class for gifted students across a specific year group (slightly more than 17% reported such classes across more than one year group). A little over 11% of respondents referred to differentiation within classes by teachers in relation to gifted children. A smaller proportion of respondents, 3.8%, reported the existence of acceleration programmes. Counselling in relation to provision for gifted students was mentioned by just under 6% of the respondents. In summation, we can be reasonably confident that the activities mentioned here are fairly comprehensive in nature – over 96% of informants failed to select an "Other" option in relation to provision for gifted students.

5.3.6 School policies and services for gifted students

	Services	Yes		No		Don't know	
		Freq	Per	Freq	Per	Freq	Per
1	A school policy for gifted students	18	34.6	29	55.8	5	9.6
2	Special classes for gifted students	21	40.4	31	59.6	0	0
3	Special teacher for gifted students	6	11.5	46	88.5	0	0
4	A named person, responsible for co-ordinating provision for gifted students	36	69.2	15	28.8	1	1.9

Table 5.13: Schools having any of the following services. (Q14)

The emphasis above on the provision or absence of programmes or initiatives for gifted students relates to another theme explored in the survey – the existence and nature of specific policies within schools oriented towards these students. About 56% of respondents reported the absence of specific policies in corresponding schools and less than 12% cited the existence of a specialist teacher for gifted students (table 5.13). Approximately 40% of respondents did however indicate the existence of special classes for these students and around 69% cited named personnel with responsibility for co-ordinating provision for this group.

5.3.7 'Who is responsible for coordinating provision for gifted students?

Those responsible for co-ordinating		Frequency	Percentage
0	No named person	6	11.5
1	Social worker	9	17.3
2	Teacher for the gifted	23	44.2
3	Practitioner for the gifted	10	19.2
4	Teacher	3	5.8
5	Other	1	1.9
Total		52	100

Table 5.14: Those responsible for coordinating provision for gifted students. (Q15)

As noted above, just over 69% of respondents suggested the existence of named individuals within schools with responsibility for co-ordinating provision for gifted students. But there appeared to be some variation in the background attributed to these personnel. Perhaps not surprisingly teachers of gifted students were responsible for this role according to about 44% of respondents (about 6% of respondents mentioned just 'teachers'). A further 19% of respondents cited the more specialised role of "'practitioner for gifted students'. A comparable proportion of respondents, 17.3%, indicated that the role of co-ordination was undertaken by social workers. But according to 11.5% of respondents, no individuals fulfilled this role in corresponding schools.

5.3.8 'Does a social worker work with gifted students?'

Answer		Frequency	Percentage
1	Yes	14	26.9
2	No	33	63.5
3	I don't know	5	9.6
Total		52	100

Table 5.15: Social workers working with gifted students. (Q16)

If we start from the premise that gifted students have particular needs, one issue to arise is whether the students discussed in this research had formal support from or recourse to a social worker. Almost two-thirds of respondents indicated that this was not the case in the schools about which they knew. But a significant minority, approximately 27%, reported the existence of such support while just fewer than 10% did not know the answer to this question.

5.3.9 'Are there Special schools for gifted students in Saudi Arabia?'

Answer		Frequency	Percentage
1	Yes	8	15.4
2	No	33	63.5
3	Don't know	11	21.2
Total		52	100

Table 5.16: Special schools for gifted students in Saudi Arabia. (Q17)

The survey then turned to the more general issue of awareness of whether there are dedicated specialist schools for the gifted in Saudi Arabia. Around 63% of respondents thought that there were no such schools and 15% suggested that these institutions existed (Table 5.16). A further 21% indicated that they could not answer this question definitively.

5.3.10 'How many special schools are there for the gifted in Saudi Arabia?'

Answer		Frequency	Percentage
0	None	48	92.3
1	One	4	7.7
Total		52	100

Table 5.17: Number of special schools for gifted students. (Q18)

The theme of specialist schools for gifted students was then approached from a slightly different tack. Respondents were asked to estimate the number of such schools in Saudi Arabia. Fewer than 8% of respondents suggested the existence of one such school but over 92% indicated that there were none (Table 5.17). This appears quite surprising given that there existed two special schools for gifted students in the region upon which the fieldwork for this research was based.

5.3.11 Staff training for the teaching of gifted students

Answer		Frequency	Percentage
1	Yes	33	63.5
2	No	13	25.0
3	I don't know	6	11.5
Total		52	100

Table 5.18: Staff training for teaching gifted students. (Q19)

Turning to teachers within schools, respondents were asked if members of the academic staff who work with gifted students received specialist or additional training. As table 5.18 suggests, 63.5% of respondents indicated the existence of such training and a quarter suggested its absence. Fewer than 12% of respondents did not feel able to comment one way or the other.

5.3.12 'Have you taken part in any training in the giftedness field?'

Answer		Frequency	Percentage
1	Yes	14	26.9
2	No	38	73.1
Total		52	100

Table 5.19: Staff taking training in the gifted field. (Q20)

But had the respondents themselves received such specialist training in connection with provision for gifted students? Results (Table 5.19) indicate that over 73% of respondents had not received such training while approximately 27% had. This figure and that relating to training (above) indicate that many of the staff working with gifted students operated without advanced and structured preparation.

5.3.13 Rating of programmes run by the Ministry of Education for the identification of gifted students

Staff opinion		Frequency	Percentage
0	Do not know	0	0
1	Very bad	3	5.8
2	Bad	6	11.5
3	Ok	6	11.5
4	Good	23	44.2
5	Very good	13	25
6	Excellent	1	1.9
Total		52	100

Table 5.20a: Staff opinion about the identification programme in education. (Q21a)

Respondents were asked to rate on a seven-point Likert scale programmes for the identification of gifted students overseen by the Ministry of Education (Table 5.20a). Approximately 44% of respondents chose a description of 'good. About 27% of respondents went further and described these programmes as very good or excellent while only 17.3% selected the terms 'bad' or 'very bad'. Judgements concerning the programme thus tended to be positive but there remained a significant pocket of more sceptical informants.

5.3.14 'What is your opinion about the definition of 'gifted' students used by the Ministry of Education ?'

Staff opinion		Frequency	Percentage
0	Do not know	4	7.7
1	Very bad	1	1.9
2	Bad	7	13.5
3	Ok	7	13.5
4	Good	14	26.9
5	Very good	18	34.6
6	Excellent	1	1.9
Total		52	100

Table 5.20b: Staff opinion about the definition of gifted students in the Ministry of Education. (Q21B)

In a related respect respondents were asked to rate the definition of "gifted" students used by the Ministry of Education (Table 5.20b). Over 36% of respondents rated the definition as very 'good' or 'excellent' and 13.5% suggested that it was satisfactory ('OK'). Just over 15% were negative in this regard, rating the definition as 'bad' or 'very bad. About 8% of respondents availed themselves of the 'do not know' option.

5.3.15 Opinions about academic initiatives for gifted students in the Ministry of Education

Staff opinion		Frequency	Percentage
0	Do not know	4	7.7
1	Very bad	3	5.8
2	Bad	12	23.1
3	Ok	10	19.2
4	Good	17	32.7
5	Very good	4	7.7
6	Excellent	2	3.8
Total		52	100

Table 5.20c: Staff opinion about the academic activities for gifted students in the Ministry of Education. (Q21C)

More specifically, how did respondents rate academic initiatives for gifted students that emanated from the Ministry of Education? As table 5.20c indicates, about 44% of respondents rated such initiatives and activities as 'good', 'very good' or 'excellent'. Just over 19% delivered a verdict of 'satisfactory' and a little under 29% chose the descriptions of 'bad' or 'very bad'.

5.3.16 Opinions about non-academic initiatives for gifted students in the Ministry of Education

Staff opinion		Frequency	Percentage
0	Do not know	6	11.5
1	Very bad	5	9.6
2	Bad	14	26.9
3	Ok	9	17.3
4	Good	13	25
5	Very good	4	7.7
6	Excellent	1	1.9
Total		52	100

Table 5.20d: Staff opinion about the non-academic activities for gifted students. (Q21D)

A similar question was asked of respondents but this time in relation to non-academic initiatives and programmes for gifted students with their origin in the Ministry of Education. Responses were divided in this respect. Nearly 35% rated such initiatives 'good', 'very good' or 'excellent'. But a comparable proportion, 36.5%, selected descriptions of 'bad' or 'very bad' while around 17% of respondents described the initiatives as satisfactory (Table 5.20d).

5.3.17 Training of relevant personnel in the Ministry of Education in connection with provision for gifted students

Staff opinion		Frequency	Percentage
0	Do not know	2	3.8
1	Very bad	4	7.7
2	Bad	4	7.7
3	Ok	14	26.9
4	Good	9	17.3
5	Very good	19	36.5
6	Excellent	00	00
Total		52	100

Table 5.20e: Workers' opinion about the training in the gifted field in the Ministry of Education. (Q21E)

Views on the training of relevant personnel in the Ministry of Education in connection with provision for gifted students tended to be quite positive (Table 5.20e). Almost 27% of respondents thought this training satisfactory ('OK') but nearly 55% employed the terms 'good' or 'very good'. Less than 16% of respondents selected the description of 'bad' or 'very bad'.

5.3.18 'What training or support would be helpful to staff involved in teaching gifted students?'

Training Suggestion Title	Number of Suggestion	
	Frequency	Percentage
Ways of identifying the gifted	17	32.7
Ways of dealing with and caring for the gifted	6	11.5
Ways of developing and cultivating giftedness	6	11.5
Promoting aspects of innovation	1	1.9
Definition of giftedness and the gifted	2	3.8
Area of thinking	2	3.8
Mental skills	1	1.9
Enrichment programme	4	7.7
Developing abilities	1	1.9
Latest developments in the programmes for the gifted	4	7.7
Training courses	1	1.9
How to instruct gifted students	1	1.9
Ways of condensing the syllabus	4	7.7
How to raise the awareness of society about giftedness	2	3.8

Table 5.21: Training or support for the staff to teach gifted students. (Q22)

The questions then turned to the more practical issue of perceived needs in relation to the training or support required by staff who teach gifted students. The largest single proportion of all the responses, 32.7%, reflected a concern with helping staff to identify giftedness among students (Table 5.21). Other ideas included help in dealing with and caring for gifted students (11.5%) and, more specifically, support in terms of developing and cultivating giftedness. A smaller proportion of responses, just fewer than 8%, suggested that focused training on recent developments in programmes for gifted students was appropriate. A similar proportion also stressed the need to condense and deliver relevant syllabi in an appropriate manner.

5.3.19 Views on the number of staff in the Ministry of Education concerned with provision for gifted students

Staff opinion		Frequency	Percentage
0	No Opinion	3	5.8
1	Very bad	9	17.3
2	Bad	17	32.7
3	Ok	13	25.0
4	Good	8	15.4
5	Very good	2	3.8
6	Excellent	00	00
Total		52	100

Table 5.22: The number of workers in the Ministry of Education for gifted students. (Q21F)

The final theme focused on views about the adequacy, in terms of numbers, of the number of personnel in the Ministry of Education concerned with provision for gifted students. Results in this respect suggest that a quarter of respondents thought the number satisfactory ('OK'). But half the respondents preferred the description of 'bad" or "very bad' – just 19.2% indicated 'good' or 'very good' in this respect (Table 5.22).

5.4 Summary

Questionnaire-driven interviews with professionals involved in the education of gifted students encompassed a broad range of issues. Some of the factors to highlight at this stage include the finding that about 69% of respondents were aware of a formal definition of giftedness by the Ministry of Education (but 30.8% of them were not aware of such a definition). The majority of respondents reported that their schools had established programmes for the identification of gifted students relatively recently (within the preceding three years). As far as the methods of identification are concerned, 42.3% of the respondents prioritised verbal reasoning, intelligence and creativity tests. Standardised tests were also very popular for the identification of giftedness (40.4%). The teacher nomination method was also popular (32.7%) and 23.1% of respondents mentioned nomination by primary schools in this regard. The majority of the respondents (78.8%) worked at schools that kept a record of their gifted students. But there was only limited agreement among professionals concerning the percentage of gifted students at their schools. Almost a third of respondents were not aware of the number of gifted students at their schools.

Turning to the issue of provision for gifted students, half of the respondents indicated that their school provided academic extension activities for their gifted students during school

hours, but 44.2% pointed to the absence of these activities. Regarding non-academic after-school activities for the gifted students, 69.2% said that their schools did not have any, and only 26.9% responded that such provision was available at their corresponding schools. The nature of these out of school activities for the gifted students encompassed summer schools (50%); Thursday Master Classes (7.7%) and learning excursion programmes (1.9%). No school had a Children's University Programme. As far as in-school provision is concerned, 46.2% of the respondents replied that they had enrichment programmes; 28.8% reported that they had an advanced group or cross-year group for gifted students and 17.3% of the participants said that they had an advanced group across more than one year group.

In terms of professional training and apposite policies, many of the respondents (approximately 56%) indicated that there were no distinct policies for gifted students within corresponding schools. And nearly 90% of respondents reported that they did not have a specialist teacher in this regard while almost 60% indicated an absence of special classes for gifted students. But around 70% mentioned the existence of personnel responsible for the co-ordination of provision for gifted students. More generally, approximately half of the respondents indicated that the number of people working in the field of education for gifted students was inadequate or 'bad'. On the other hand, 15.4% of the participants replied that the numbers in this field were 'good' number and 25% opted for the description of 'satisfactory'. And at an even more general level, about 70% of respondents thought that programmes used by the Ministry of Education to identify gifted students were 'good' or 'very good'. Non-academic activities and initiatives for gifted students associated with the Ministry of Education were however described as bad or very bad by over 36% of respondents. With regard to the training or support that the ministry offers to people who work with gifted students, 32.7% of respondents suggested that training in the identification of giftedness was helpful and 11.5% suggested support concerned with ways of dealing and caring for the gifted was worthwhile.

CHAPTER 6

THE RESULTS OF THE STUDY

The Practitioner Interviews

CHAPTER 6

THE RESULTS OF THE STUDY

The Practitioner Interviews

6.1 Introduction

Chapter five considered the results of the questionnaire survey administered to staff working on programmes for gifted students within schools. This chapter builds, qualitatively, on this data by reporting findings from the interviews and a group interview with a purposive sample (n=5) drawn from among these professionals. This part of the research was designed to allow more detailed and focused questioning and to facilitate more nuanced responses - a means to enrich, qualify and contextualise the quantitative data. The combination of individual interviews and a groups interview was designed, on the one hand, to facilitate more detailed interrogation of participants (and, potentially, greater candour on their part) but also to allow for the fact that views may be shaped by interaction among participants - an appreciation of 'real-world' influences upon professional practice and perceptions (Lehoux *et al* 2006).

6.2 Research themes and the informants

The interviews took between 15 and 20 minutes each on average and the group interview lasted for about two hours. Initial topics addressed were twelvefold:

1. For how long has the gifted students' programmes in the Ministry of Education been running?
2. Does the Ministry of Education have a definition for "gifted" students and how and, if so, how clear is that definition?
3. For how long had corresponding schools been identifying gifted and talented students and what, if any, apposite opinions did the informants hold in this respect?
4. Has the manner in which Ministry of Education identified gifted students changed since it was introduced?
5. What methods did individual practitioners you use to identify gifted students?
6. What percentage of students are regarded as gifted according to the Ministry of Education?
7. What did informants have to say about Gifted Student Centres?
8. Did corresponding schools provide academic extension activities for gifted pupils during school hours?

9. Did corresponding schools provide academic extension activities for gifted pupils after school hours?
10. Did corresponding schools provide non-academic extension or enrichment activities for gifted pupils after school hours?
11. Are there Special schools for gifted students in Saudi Arabia and, if so, how many
12. Had informants undertaken any specialist training to teach gifted students?

In terms of the group interview, all five members of staff in the Al-Qasim Gifted Students Care Centre were included. The sampling strategy was essentially purposive in that the breadth of experiences and expertise among participants were judged appropriate to this aspect of the research. The group interview took place at 9.30 am on 15 February 2007 in the office of the Director of the Centre in Buraidah city. The main focus was upon programmes offered by the centre and other programmes offered by the Ministry of Education and affiliated schools. The interviewees were also chosen on a purposive basis – their roles and experience were judged to be of direct relevance to the themes to be addressed. These interviews encompassed:

- The Supervisor responsible for enrichment programmes for gifted students in the Ministry of Education in Riyadh.
- The Director of the Office of the President of King Abdulaziz and His Companions Foundation for the gifted.
- The Director of the Al-Qasim Gifted Students Care Centre for boys.
- The Director of the Gifted Students Care Centre for girls.
- The Director of the Prince Sultan bin Abdulaziz Complex Education for gifted students.
- Three teachers who worked with gifted students.
- Two social workers who work with gifted students.

The findings from the group interview and interviews were derived separately in the analysis but are conflated below on the grounds that the two sets of data did not point to markedly divergent findings.

6.3 Background to programmes for gifted students

In this section I report on findings in relation to three areas - the definition of a gifted student; the establishment of gifted students' programmes in the Ministry of Education and the methods used to identify gifted students.

6.3.1 Programmes for gifted students

The informants were asked for how long the gifted students' programmes in the Ministry of Education had been running. Replies referred mostly to the relatively recent nature of these programmes and often stressed that the initiatives were still under development and in need of further improvement. More specifically, 12 of the 15 participants stated that gifted students' programmes in the Kingdom of Saudi Arabia are still new and restricted to certain areas. Mention was made of the need for further development and financial support (including the curriculum, staff training, programmes for gifted students and the identification method). One of the teachers, for example, opined that:

> *The gifted students' programmes are considered new since they were started in 2002 and are limited to some schools in the Kingdom. These programmes need a lot of effort and technical and financial support to be developed during the coming years.*

But three of the participants stated that they did not consider the five years since the establishment of these programmes to be 'recent'. So the idea of novelty appeared quite subjective among participants – a potential factor in personal evaluations of the degree to which the programmes were meeting imputed objectives. Accordingly, all participants were of the opinion that progress still needs to be made in the area of programmes for gifted student. Specific recommendations in this respect included:

- *These programmes should expand towards more regions;*
- *More financial support is needed;*
- *Identification methods need to be clearer;*
- *Staff need specialized training in relation to the gifted and talented population;*
- *More time and experience needs to be devoted to these programmes.*

6.3.2 The Definition of a Gifted Student

Discussion of the clarity of the definition of a gifted student centred, perhaps not surprisingly, on students who are distinguished by academic attainment and potential. Fourteen informants reported that gifted students' programmes focus on those who obtain high marks in their school subjects, but one of the teachers interviewed also noted that the definition might include those who are not distinguished in this respect:

> *Gifted students are those who have unique skills, abilities or distinguished performance from their peers in one of the fields that are evaluated by society and are in need of special educational care that is unavailable in the ordinary school curriculum.*

These definitions show that gifted students are seen to have unique abilities or distinguished performance in at least one of the fields evaluated and esteemed by wider society. But as 14 of the participants indicated, the Saudi education system was in this respect oriented specifically to high marks in "academic" subjects. Other abilities aptitudes - such as those in sport, creativity or communication – were seen, implicitly as secondary (this concurs with my own observations of programmes for gifted students and discussion with some of the latter.

Indeed, turning to the King Abdul Aziz and his Companions Foundation for the Gifted (a semi-governmental charitable foundation which generally cooperates with the Ministry of Education in offering programmes for gifted students), particular priority was given to achievement in the fields of mathematics, science, computing, design and technology. This suggests some downgrading of corresponding ability in the arts and humanities fields of study. This was rationalised on financial grounds by one informant:

> *The foundation plans different programmes and trips for those students in the Kingdom and abroad such as the USA, Malaysia and Britain. This foundation has limited resources and cannot play its role in serving the gifted since it is based on the contribution of grants and has little local support.*

In other words, 'objective' measurements of giftedness have to be contextualised by an understanding of how particular societies and institutions therein rank and prioritise achievements within different fields.

6.3.3 The establishment of the Gifted Students' Identification Programme

Another theme in the research was concerned with programmes used by the Ministry of Education to identify gifted students. The relevant initiative began in 2002. But, as eight informants noted, programmes for the identification of gifted students do not cover every zone in the Kingdom. Indeed one of the social workers observed that some school principals do not have any idea about programmes for identifying gifted students. It also appeared that the 'gifted centres' do not routinely provide the schools with the names of

gifted students - in such cases the centres limit their tasks to identifying and then inviting gifted students to participate on their special programmes. But it could easily be argued that the school principals need to be provided with the names of gifted students in their schools in order for teachers to offer appropriate support. In short:

- *Gifted students are identified only in a limited number of regions of the Kingdom;*
- *There is often a lack of information, as some principals are not aware of the programmes for identifying these students;*
- *The names of the identified students remain unknown, and these results in a lack of in-school provision and lack of cooperation with the gifted centres.*

6.3.4 Methods for Identifying Gifted Students

In terms of the methods used to identify gifted students in these schools, nine of the interviewees indicated that there are some effective strategies. These included noting sustained high academic achievement, nomination based on teachers' perceptions and experience and tests to identify the ability and potential of students. As one of the test specialists stated:

> *There are some other tests used in the process of identifying gifted students such as the Torrance Test for creative thinking. The Torrance test is only used when the test practitioners are not confident about students' abilities or when they need to repeat the test because this test is considered difficult, long and intensive. The Waxler test is used in fewer cases such as when a student fails in test ability. Both the Waxler and Torrance tests are rarely used since they need time and effort to be considered effective. The reasons why they do not use these tests more often are a lack of staff understanding about how to implement these tests and there is only one employee to do that in the gifted students' care centre.*

Parenthetically, as this last interview excerpt suggests, some research has shown that the use of tests, nomination by teachers and sustained high academic achievement do not necessarily identify gifted under-achievers.

6.3.5 The percentage of Gifted Students and the Body Responsible for their Registration

In response to questioning about the body responsible for their registration, most informants cited the Gifted Students Care Centre. The bulk of interviewees noted the existence of electronic records therein. But a minority also asserted that such records should be kept by the school administration office. Their rationales were reflected in my own observations on visiting the care centre – systems therein appear quite inflexible, sparse and records are not updated rapidly. Discussion also centred on the proportion of gifted students in the education system. About half of those spoken to suggested that the relevant percentage of gifted is 2%; a few cited a figure of 5% while a third of informants indicated that a dearth of accurate statistics meant that the percentage could not be specified. These perceptions do however accord with findings from research in other countries, Emmanouilidou (2007), for example, found estimates of 0.5-20% among a sample of English teachers.

6.4 Provision

This section of the chapter considers findings as they relate to centres for gifted students, corresponding programmes introduced by these centres within Saudi schools, financial issues and perceived problems.

6.4.1 Gifted Student Centres

There were 31 Gifted Student Centres for male students and 20 for females in 2005 according to those informants in a position to be specific. Rationales for these centres echoed the "official" line that was available, for example, in a brochure from the AL-Qasim Gifted Students' Care Centre in 2006. The centre was described as:

> *A social educational foundation specializing in providing the gifted with educational, social, behavioural and psychological care for them by the programmes offered to the gifted in the centre. These programmes are available to the students during working hours or through enhancing the programmes provided through the schools and student activities and are supervised by the General Administration for the gifted.*

This rationale was reflected, more critically, by some of the informants:

The centres receive the gifted identification and sponsorship programmes during or after work hours and during holidays. The staff working at the centre have to provide support and encouragement for mainstream schools and prepare for achieving the requirements needed to implement support programmes, in addition to human and technical support for newly established programmes for the gifted in mainstream schools. The number of employees in the centre is considered small and it therefore cannot play its role in working with the Ministry on specialized programmes for the gifted.

Discussion then turned to the detailed nature of these programmes.

6.4.2 Types of Programme for Gifted Students

When asked whether the Ministry of Education provides academic extension or non academic extension programmes for gifted students in their schools, the group interviewees stated that the Ministry of Education has adopted academic and non-academic "enrichment" programmes for gifted students (such as evening activities, Thursday programmes and summer forums). Mention was also made of other programmes introduced by the Ministry. As one teacher observed:

The gifted students' centres has established some training programmes such as mutual thinking strategies, remote thinking, problem solving with scientific methods and dealing with problems by creative methods. They have also given more focus to subjects namely science, physics, chemistry and computing.

But as most of the interviewees noted, these programmes were available in only 123 schools from thousands in Saudi Arabia. And as the majority of informants indicated, the programmes faced some difficulties. Those cited included:

- *Lack of financial support;*
- *The length of a programme not always matching the students' needs;*
- *Little choice in deciding whether or not to participate in the programmes;*
- *Lack of training of those involved in the programmes;*
- *Teachers' dissatisfaction with the programmes due to lack of information and awareness about them;*
- *The centres are restricted in number and thus do not cover the needs of gifted students throughout the country.*

These observations were usually tied by informants to specific experiences. Instances, for example, of limited financial support led some institutions to ask for donations from businesses. In a second respect, the length of the programmes and a lack of choice about participation were linked to weariness and lack of enthusiasm among students and teachers. And in a third regard, the limited number of those involved in running the programmes made effective implementation difficult in some cases. Fourthly, some teachers were dissatisfied with these programmes and had no clear idea about them – this led to resentment when students undertook such programmes.

But these sentiments were balanced some more positive recommendations. It was suggested, for example, that there should be a fully resourced care centre for gifted students in every city. Nearly all informants also highlighted a perceived need in each school for a full time teacher to support and cater for gifted students. It was observed that there are 18 such teachers in the Al-qassim zone but more than 500 schools. Mention was also made of the fact that acceleration and condensed curriculum programmes were not available throughout the Kingdom's education system despite a stipulation that they should be accessible everywhere. A specialist teacher in each school, it was thought, could co-ordinate and direct programmes for gifted students at the level of each school as well as representing their interests in the overall management and operation of the institutions. In a third respect, although views on an Internet forum for gifted students run by the General Administration for Gifted Students in the Ministry of Education were mixed, about half of the informants saw it as a good conduit for discussion and conversation between gifted students and some employees.

6.4.3 Private Schools for the Gifted

The interviews and group interview also touched upon private schools for gifted students. Three-quarters of informants indicated the existence of two private schools for gifted students in Burideah city. A head teacher explained that:

> *The student must get 90% in all subjects as a condition of admission into these schools regardless of any other talent. There are no other ability tests because the student's academic achievement is the only accepted factor.*

There were some disagreements between informants about these private schools. Some of them agreed with such schools on the basis that the institutions strengthened a focus on the gifted and helped to develop a competitive environment. Others, however, claimed that such institutions p have a negative impact by creating intense

competition between gifted students, isolating the latter, encouraging the gifted to be selfish and diminishing encouraging a collaborative spirit among students.

6.4.4 Future Goals

Discussion also encompassed the future direction of provision for gifted students. One of the supervisors in the Ministry confirmed that the Ministry of Education was hoping to develop more services and programmes for gifted students in coming years. These included:

1. *Increasing the allocated funds for gifted care programmes.*
2. *Establishing care centres for the gifted in each education administration (as a minimum).*
3. *Having qualified and full-time teachers in each school for the gifted.*
4. *Establishing a private gifted students' academy. For this aim, a scientific committee and a project would be prepared in accordance with King Adul Aziz and his Companions' Foundation for the Gifted. The first step of establishing the academy would be to establish a Science and Mathematics Academy in Al-Ryad for boys and one in Jeddah for girls.*
5. *The programmes for the identification of gifted students in the gifted centres have to be applied in order to receive a syllabus and special care programmes. This project has been approved as an initial step for applying it in all education administrations offices. This project is oriented to students from the fifth grade to the third intermediate grade.*
6. *Introducing new routes for training the gifted teachers in schools and colleges.*
7. *Setting and standardizing intelligence and mental ability measurements especially for the Kingdom.*

These recommendations are viable in the future if gifted provision remains a priority.

6.5 Training and Policy

The section of the chapter focuses on findings related to relevant training and policy in the field of education for gifted students. In general terms, seven training courses for teaching gifted students were mentioned:

1. *Gifted Education.*
2. *Introduction to thinking skill.*
3. *Lessons in thinking skills.*
4. *Designing the Richmond programmes.*
5. *Condensing the curriculum.*
6. *Creative Problem Solving.*
7. *Creative Future Problem Solving.*

But how did the informants feel about such provision?

6.5.1 Views on training

Thirteen of the fifteen informants had received a course on programmes for gifted students. However, seven of them claimed that such programmes were available only for the employees and teachers at the gifted care centres. Although more than 80 courses for employees all over the Kingdom's schools were run in 2005, this number was not considered sufficient. It was suggested these programmes and courses should be available and oriented to other employees in the gifted care field (such as principals, social workers, students' supervisors, and laboratory and library employees on the grounds that they all have direct contact with gifted students.

More specifically, it was also observed that most of the training courses took the form of lectures rather than practice-based workshops – several informants thus felt that the courses were not an adequate preparation for the practical application of knowledge and skills. This informed the advocacy of training courses in particular areas:

1. *Methods for identifying gifted students.*
2. *Ways of dealing with and caring for gifted students.*
3. *Definition of giftedness and the gifted.*
4. *Critical thinking.*
5. *Mental reasoning.*
6. *Enrichment programmes.*
7. *Developing abilities.*
8. *Latest developments in programmes for the gifted.*
9. *How to instruct gifted students.*
10. *Ways of condensing the syllabus.*
11. *Challenges in Gifted Programmes*

These sentiments informed perspectives on broader systemic and policy issues.

6.5.2 Views on Policy

Ten key issues were identified in this last respect:

1. *Lack of financial allocation for gifted programmes.*
2. *Absence of awareness in schools and families about the definition of gifted and how to deal with it.*
3. *A lack of recruitment in sufficient numbers of specialized staff for the gifted care programmes.*
4. *Lack of employees in the gifted care centres.*
5. *Inadequate coordination between the gifted schools and centres.*
6. *Lack of specialized courses for the staff in the gifted care centres.*
7. *Difficulty meeting the demands of the intensive programmes for the gifted and the school curriculum.*
8. *Problems with maintaining the interest of gifted students in view of intensive morning classes.*
9. *Absence of fulltime teachers for the gifted programmes in the schools.*
10. *Absence of tests and measurements for the gifted students specifically for the Saudi environment.*

One of the interviewees linked several of these emphases:

> *The gifted students' programmes are inadequate due to various reasons such as lack of staff, absence of fulltime teachers to work in the field of the gifted and weakness of the principals of gifted programmes in schools and homes. As a result, some parents prevent their children from participating in such programmes in order not to affect their academic achievement.*

This suggests that these parents need to be reassured that their children's achievement in mainstream schools is not affected by attending these programmes.

6.6 Summary

The findings presented in this chapter (summarised below) are largely consistent with data from the questionnaire surveys and my own field notes. But the qualitative data has also acted to root such findings more clearly in the experiences and perceptions of key actors. Interviewees and participants in the group interview spoke to the variety of programmes

for gifted students offered by the relevant Ministry but also highlighted the relatively recent nature of these initiatives and a number of problems. The latter include financial support, funding, training, geographical coverage and staff numbers. Against the background of these triangulated and contextualised findings the next chapter considers the results overall in relation to the research questions raised in the first chapter and apposite studies described in the second.

CHAPTER 7

DISCUSSION OF FINDINGS

CHAPTER 7

Discussion of findings

.1 Introduction

This thesis has, so far, explored the past and current literature on a wide range of aspects relating to gifted education. As was highlighted in Chapter Two, the concept of giftedness is a complex one; however, the literature review provided a framework for conducting this study. This chapter will attempt to explain and discuss the findings of the study, which were presented in Chapters Four, Five and Six. These findings were obtained by the use of a questionnaire for gifted students, as discussed in Chapter Four and the findings from a questionnaire and interviews with the people who work with gifted students - namely the specialist teachers, head teachers, social workers, practitioners and teachers of other subjects -as presented in Chapters Five and Six. All the data collected and analysed have contributed to answering the research questions, as well as for highlighting aspects which should be of general interest to audiences in Saudi Arabia as well as to the international community. How the research questions are answered is discussed in Chapter Eight.

The specific aspects in Chapter Four explored gifted students' family background, their understanding of themselves concerning their own academic achievement, the influence of schools, the strategies which schools often applied to students' learning, the social life of the students and the academic or non-academic activities after school attended by the students. In Chapter Five, issues relating to the identification of gifted students, the nature of the programmes for gifted students in schools, the role of the social workers with gifted students, training of the personnel involved in the field of gifted education and school policies for this population were explored. In Chapter Six, the interviews were used to find out more about the background of the programmes for gifted students, as well as to understand more about the programmes offered to gifted students.

As a background to this Chapter, it should be stated that the literature review presented in Chapter Two highlighted some obvious differences that exist between the researchers and the theorists in the field of giftedness. There are huge variations in the concept of giftedness amongst the experts. Some focus on a single dimension view of the intelligence of gifted students, which can be identified through tests, whilst others see the definition of giftedness involving other characteristics such as creativity and interpersonal skills. The characteristics and attributes relating to giftedness have varied throughout, from being intelligence - related at the beginning (Terman, 1925) or creativity-related (Torrance,

1965) to a wider view, which includes the numerous aspects of human contribution to life (Hagen, 1980; Fox, 1981; Gardener, 1991; Renzulli and Sternberg, 2004). As a general observation, it seemed (through early visits by the researcher and a study of policy documents) that the conception of giftedness within the Ministry of Education in the Kingdom of Saudi Arabia is that a gifted pupil would be academically distinguished. Related to this is what emerged as the main method of identification being test-based and a variety of tests were used. But what is presented in this Chapter is based on the empirical evidence gathered during the study from a number of sources, not just on the basis of what was read in documents.

All the data gathered during the study were designed in such a way as:

- to explore the effectiveness and any possible weaknesses of gifted programmes in Saudi Arabia, by seeking the perspectives of all parties involved;
- to draw conclusions about the gifted programmes in Saudi Arabia and make recommendations based on findings from the data collected.

The discussion in this Chapter will be structured under some broad themes which were highlighted during the three stages of data collection. The three stages of the data collection were:

1. Gifted students' responses to questionnaires.
2. Responses to a questionnaire by key workers
3. Interviews with the people who work with gifted students.

Field notes taken by the researcher will be used to supplement the data, where it is felt to be appropriate. A brief summary of the discussion of each stage of the data collection will be presented after each section. All the themes will be pulled together at the end of the Chapter to generate which it is hoped will illuminate the nature of gifted education in Saudi Arabia and what possible directions may be useful for the future.

7.2 Analysis and discussion of Gifted Students' responses to questionnaires

7.2.1 Family Background

Most parents (85%) of gifted students who responded to the questionnaires appeared to have higher education qualifications; their fathers being more educated than their mothers.

This difference can be explained by the Saudi social law requiring the father to be more responsible for the financial support of the family. According to Islamic social law, a father should support and spend money on his family, even if the mother has more money, Ibn al-Mundhir (may Allah have mercy on him) said:

> *"All of the Muslim scholars from whom we learned are agreed that a person is obliged to spend on his young children who have no money of their own, because a man's child is part of him, and the child is part of the father. Just as he is obliged to spend on himself and his wife, he is also obliged to spend on his descendants and ascendants"* (al-Mughni, 8/171).

Further, a majority of parents of gifted students work for the government, in professions and many were teachers.

The research results also showed that the families of the participating students are large, with the majority having six or more people living at home. As far as siblings are concerned, more than half of the students had two brothers and two sisters. Over half of the gifted students in the sample were either first or second born. This could indicate that most families are concerned about these children more than the others, concerned about their support and how much time they give them although no specific reasons can be attributed to this. As to the number of children in the families, it can be explained in terms of the Islamic social system and Arabic cultural belief, which encourage a high number of births and care for all aspects of raising children (Al-Bukhari, 2005). Overall, the results revealed that most families consist of six people. This number is not very large compared with other families in Saudi Arabia because the average family size in Saudi Arabia is seven and, on average, women have 5.4 children (Raphaeli, 2003).

As far as parental help with studies is concerned, most of the students (84%) received help from parents. A higher number of students obtained support from their mothers compared with that from fathers. This could be because mothers stay at home more than the fathers. Furthermore, the support that the students felt they received from their parents was both spiritual and material. The expectation of the family, as perceived by the students, was concerned mostly with their children gaining postgraduate qualifications and finding good jobs. Firstly, it could be said that most families of gifted students encourage their children to think about their studies more than anything else - such as hobbies. Secondly, the findings showed that these families think seriously about their children's future and support them.

Two themes emerge strongly about the gifted children who responded to the questionnaire. First, they came from well-educated families with Higher Education and having professional careers. Secondly, parents had high expectations and aspirations for their children and, in terms of acquiring higher education and well-paid professional careers; the children were aware of these expectations that they must work hard and have a good standard of education.

Several questions can be raised here. Does the membership of the gifted students cohort depend on the level of education and professional status of the families? What criteria were used to identity them to be gifted? Were these children trained to do well in tests which were used for identification purposes? Is it likely that there is an uneven playing field, where children whose parents were poorer and not well-educated could be left out from gifted programmes? Is it possible that the children who are not identified as gifted be excluded from achieving good examination results, Higher Education and good career prospects. Answers to some of these questions were answered in the questionnaire and will be dealt with later in this Chapter. Some questions remain unanswered.

The need to be inclusive in selecting students for gifted programmes is one of international concern and the issue of Widening Participation of students in Higher Education has been the subject of much international debate in the past decade and different types of programmes, designed to encourage orientation of students from poorer backgrounds to Universities, have been produced (Council of Europe, 1996; Woodrow, 1999; UNESCO, 1998). UNESCO has highlighted the need for special programmes and states that access to Higher Education for members of disadvantaged groups must be actively facilitated and that special help and educational solutions can overcome the obstacles that these groups face.

Van Tassel-Baska (1998) maintains that one of the most neglected groups amongst gifted students in the USA is the bright student from a disadvantaged background and that the under representation of students from minority ethnic groups and lower social classes in enrichments programmes needs to be addressed. In England, Lucey *et al* (2003) found that students from middle classes tended to dominate the membership of gifted and talented cohorts of students created in response to the UK Government's (DfEE, 1999) requirement that each secondary school (11-16 age group) select 10% of their intake and form a gifted and talented group.

Based on an evidence base, the need for considering practices designed to improve the academic opportunities of promising learners from lower income families is also highlighted by Robinson *et al* (2006). The authors list two possible barriers preventing these students from realizing their potential: identification practices may not work in their favour and assumptions are made by educators, parents and policy makers about their potential for academic progress. The authors emphasize the need for programmes and services that are of sufficient intensity and duration and which take into account family circumstances in order to increase achievement and ultimately leverage these learners into a successful learning trajectory.

.2. Academic-related issues

How do the gifted students understand their academic achievement? Most gifted students obtained high academic results (86% scored between 95-100%). The majority of them knew they were labelled as 'gifted' and 86% of them had taken IQ tests. School and teacher nominations were the predominant method (71% of the students) of identification of giftedness. It can be assumed that the majority of gifted students who were recorded in the Ministry of Education in Saudi Arabia as gifted were selected based on the results of academic tests. This was also noted by the researcher during his visits and interviews with workers in the schools. This raises several issues about gifted education programmes in Saudi Arabia. If identification is based on academic performance, could students who demonstrate creativity and other talents such as sports, be missed from gifted programmes? For example, a gifted student may be highly talented in sports or highly creative in arts, but not so successful in academic subjects and such students may not receive the right kind of support to nurture their gifts and talents; this can lead to a non-fulfilment or even a complete loss of their talents.

Several of the experts in gifted education subscribe to the multi-dimensional nature of giftedness. Although early conceptions of giftedness were based on a single measure of intelligence and tests which can often accurately predict high grades in examinations (Renzulli, 1986), recent theories offer broader conceptions of giftedness and acknowledge that pupils have different aptitudes and talents.

In Chapter Two, one of the most well known models which departs from viewing giftedness on the basis of test results alone was proposed by Renzulli (1986) through his Three-Ring Model, which argues that no single criterion can be used to determine giftedness and that the interaction of three interlocking rings – *above average ability, task commitment* and *creativity* is a necessary ingredient for creative productiveness. The

distinction between *school-house giftedness* which can be identified through tests as opposed to *creative productive giftedness* is highlighted in this model. In any attempt to define giftedness there must be the assumption that we can provide specialised learning experiences to promote all kinds of talent. If the aim of gifted education is to produce the next generation of leaders, problem solvers and persons who make important contributions to arts and sciences, the most efficient 'rote lesson- learners' are not always necessarily the persons who will make creative contributions (Renzulli, 1986).

Gardner's seminal work (1983; 1991) – the theory of Multiple Intelligences - also challenges the view of giftedness as high academic performance. He introduced his theory of multiple intelligences which focuses on expertise in specific domains. This theory was based on research carried out on people whose brain function was damaged in certain areas, but were able to perform at high levels in other areas. His theory of human abilities includes linguistic intelligence, logical mathematical intelligence, musical intelligence, bodily-kinaesthetic intelligence, spatial intelligence, interpersonal and intrapersonal intelligences, with naturalistic and existential intelligences added to the list more recently. Gardner, significantly, makes an attempt to shift discussions away from the assumption that human intelligence just belongs to the domains of language and mathematics and treats all intelligences as having equal status. Based on research on human intelligence, carried out at Yale University, Sternberg also questions the validity of considering test scores and examination performance as a way to assess giftedness. As described in Chapter Two, he put forward his *Triarchic Theory of Intelligence* (Sternberg, 1986) as a way of understanding the nature of giftedness. The triarchic theory is based on Sternberg's specific view of intelligence, which he regards as a practical specific ability to follow one's strengths and adapt to environments. It is comprised of three sub-theories (contextual, experiential and componential) which is the basis of models of intelligent behaviour. The conception of giftedness which seems to emerge from the responses to the questionnaire is uni-dimensional and test-based.

The questionnaires also revealed the participating students' academic preferences and achievements which are also of interest. Their best subjects – both in terms of achievement and liking were Mathematics and Science with the Quran also playing an important part in their learning. Students found these subjects 'easy' to learn. The least favourite subject was English, which was also found to be a 'difficult' subject. Interestingly, creative subjects did not appear much on the students 'like' list. The reasons for these preferences may be speculated upon, based on the researchers' other observations and knowledge of the system. The reason for the difficulties with English may be due to over-reliance on the

teaching of grammar in English lessons. It was also noted that teachers did not speak English in English lessons. It is possible that students preferred learning Mathematics and Science (like the Quran) because the teaching was based on learning rules and procedures, which enabled them to achieve higher marks. Teaching of these subjects may have been supported by a passive transmission model with an emphasis on obtaining correct answers. According to test results, the students performed well in these subjects.

7.2.3 The students' work habits and attitudes to school

Most of the gifted students who took part in the study 'worked hard' to improve themselves (81%). Many of the students affirmed that their parents' satisfaction was one of the motivating factors that encouraged them to work hard. Most of the gifted students worked hard to please their parents - only 4% had disagreed with this statement. Also, from this result, it can be seen that there is a good relationship between students and their parents. On the other hand, it could also be argued that there may have been strong control of students by their parents, encouraging or pushing them to succeed. As the researcher is aware of this within the Saudi Arabian culture, this is a strong possibility.

Another reason for the students to work hard was to improve themselves realising the importance of education in a future career. The majority of the students (93%) regarded education as playing a significant part in their future career development. This is comparable with other studies and theories which were discussed in Chapter Two, such as those of Gross (2000), Webster (1998) and Wallace (1983). These studies have shown that gifted students are distinguished by passion in work and being serious-minded and highly motivated. Also, this is in line with the finding that almost half of the gifted students enjoyed difficult tasks (48%) that encouraged them to work hard, but 34% did not enjoy difficult tasks. A respectable number of the students could not decide on this statement (19%).

Most of the gifted students who responded to the questionnaire 'enjoyed school life' and 'education' and 58% of the students thought that school life was interesting, while 20% of them disagreed. The reason why some gifted students did not enjoy their school lives cannot be ignored and needs further explanation. This could be due to the teaching methods, which are mostly based on transmission and dictation, with minimum dialogue or discussion with the students, as was observed by the researcher. This may lead many of them to be bored, especially as most of them seemed to have no problem with doing their homework. This observation is supported by the result which showed that the majority of

the students believed that school work was ‘easy’ (71%) although many of the students said that they did enjoy ‘challenging’ work.

The findings revealed that gifted students were mostly distinguished by being self-confident when they were asked questions in the classroom and this is consistent with several theories that emphasize that gifted students are generally highly self-confident (Freeman, 1998). The results also showed that although more than half of the students did not worry when they answered questions, 29% of them had concerns and 48% of the students felt ‘fear’ on these occasions. As 48% is not a small number, the question as to what possible reasons contributes to the ‘fear’ needs to be raised. One possible reason may be the style of teaching. The researcher had observed that teachers taught with limited two way conversations with the students; delaying their questions until the end of a lesson may also cause the students to worry. In fact, there were indications that 31% of the students were worried about making mistakes in the classroom. The other explanation for the worry about asking questions and making mistakes may be due to the personalities of the students and the educational upbringing they receive within the home and the relationship with the teacher in class. Unquestioning attitudes are often adopted by students in Saudi Arabia. These findings suggest a need for reconsidering the teaching methods in the Kingdom's schools. Students must also be encouraged with freedom of expression. Furthermore, as Ali (2000) state, the sentiment that a positive teacher is able to play a positive role in establishing social relationships with their students inside the classroom, developing students’ self-confidence in order to decrease frustrating conditions and encouraging students to be creative may need to be highlighted. Students had also expressed their opinion that teachers were powerful and decide everything in the school; this may also have contributed to the ‘fear’ of giving wrong answers and making mistakes.

The findings also revealed that most gifted students had good relations with their school peers and this too is in line with several scientific studies such as those of Webster (1998) and Whitmore (1985). This disposition may be due to the students' abilities to make adjustments in response to others’ behaviour. However, peer relationships influenced some of the gifted students in their decisions in school. For example, almost half of the students attended classes if their friends also attended, but 38% selected their classes independently. On the other hand, this finding shows that some of these students choose their subject specialisms not according to their wishes but following their friends. This may be also be because there is a lack of awareness of the importance of autonomy in student selections; as they may not always enjoy the freedom to make independent decisions.

What is the influence of the school on gifted students' academic achievement? The findings revealed that a number of gifted students enjoyed the teaching and the school atmosphere. For example, 60% of the students 'liked' their school; only 16% did not like their school, with 23% not identifying themselves with any of the statements. This was confirmed in the questionnaire as a high percentage of students (87%) replied that they regularly attended school and only 4% did not attend regularly, while 9% did not give a direct answer. This result indicates that gifted students prefer to go to school regularly and this is consistent with previous studies, such as Freeman's (1998) who revealed that gifted students are interested in the learning process. Another interesting response revealed that gifted students sensed that teachers had a lot of authority inside the school. 72% of students agreed with this, while only 10% of them disagreed with this view and 18.3% of them neither agreed nor disagreed. The perception of the 'teacher power' by students was a theme that re–merged.

Despite the fact that the gifted students thought that teachers had much 'power' in the school, most of the students seemed to still enjoy learning in school and receiving compliments from their teachers. The majority of students believed that their teachers made learning interesting, but a significant number (22%) of them disagreed with this, and 31% did not give any specific answer. These figures show the importance of further exploration of the teaching methods used in education. Most of the students (71%) stated that they received positive responses from their teachers and only 13% did not receive such responses, but also 16% did not give a specific reply. This result confirms that there is a good relationship between the students and the teachers in the classroom, despite the perception of the 'teacher power' and this translated into high academic performance. This is consistent with other expert views that there must be a positive relationship between the student and the teacher in order to achieve success inside the school, as Hanoreh (2003) revealed in his study. Most of the Saudi Arabian gifted children seemed to succeed in school in terms of achieving good grades and having high aspirations.

7.2.4 Students' thoughts on gifted programmes

The majority of the Gifted students seemed interested in the gifted programmes. 66% of them sought to do well because they were on the gifted programme. 18% of the students, however, did not agree with this statement and 16% did not share any of the two opinions. The reasons for a third of the students not subscribing to this view need to be investigated. Could it be that they were not happy with the label or simply felt they were not receiving anything special by having membership of the gifted population? This underlines the

importance of these programmes to make it knows to the gifted students what is on offer and what is expected of them. Listening to the student voice, expressing what they expect and would like to have as part of the gifted programme, should prove useful. This is specially important because some theories, such as that of Zainal (1992), indicate that attending gifted programmes are very important in developing abilities in children.

The findings also indicated that most gifted students (66%) were confident about their educational abilities and did not feel they would do better if they moved to another school. This suggests that gifted students are confident of their performance, or they feel that there is no difference in the services provided in other schools, even if they changed schools. 42% of the students felt that their school provided enough academic extension or enrichment activities after school and 17% did not either agree or disagree with this. It is noteworthy that through his observations, the researcher felt that there was a positive orientation towards enrichment programmes amongst the students. However, the majority of the students (85%) believed that their school does not have enough non-academic extension or enrichment activities for gifted pupils after school. This result indicates the inadequacy of these programmes from the viewpoint of the students, also confirmed by the researcher's notes, of the researcher during the time of the investigation. Some other previous studies, such as that of Al-Ghamdi (2007), revealed that there was a lack of gifted programmes inside the Saudi Kingdom's schools - especially non-academic programmes. This lack of programmes may be the result of the major focus being on the academic achievements of the gifted.

These findings show that the gifted students are distinguished by being self-confident and by being able to understand themselves as the research mentioned earlier and this is confirmed by many other studies. 80% of the students know that they are gifted, but 19% of them did not know this, and 1% did not think they were gifted. This result indicates the importance of educating students and the families regarding aspects of gifted education so that they can be partners in both the identification process and provision. This is particularly important as the responses to the questionnaire showed that 73% of the students were identified by their school or their teachers, and only 14% felt that they were 'discovered' by their family and 10.2% replied that they identified themselves. This result highlights the importance of raising the awareness of the 'gifted' concept, especially amongst families and society in general.

Large numbers of gifted students were subjected to intelligence tests, which means that tests are used in schools to identify those who are gifted. 86% of the gifted students had

taken intelligence tests and only 5 had not, whilst the rest could not recall if they did so. Although a system of testing exists in the education system, 55% of the students were identified less than a year before the time of the data collection, 23% of them had been identified for 1-2 years and 10% for more than three years. The question as to whether the fact that they were identified so late in their school life affects their educational opportunities needs to be raised.

A large number of gifted students selected professional future careers - (31%) wanted to be doctors, 16% wished to be engineers and 16% preferred other professions. A further 15% wished to become teachers and 15% hoped to be professors. Again, these results indicate the high aspirations of the students. The choices may have been influenced by the fact that doctors were regarded as being prominent members of society. The income of the doctor is very high, which may also have been an encouraging factor.

With regards to academic extension or enrichment activities, most (65%) of the gifted students replied that they did not attend any. The percentages are somewhat different concerning the non-academic extension or enrichment activities. 55% of the students did not attend any such activities and 30% attended these non-academic programmes, while 15% did not give a clear answer. Overall these figures demonstrate poor participation of students on these programmes. This may be because most schools do not have these types of programmes, and even if they have such programmes, they may not have been attractive enough for gifted students to participate in them. The researcher had observed this aspect through his school visits. However, the findings also revealed that gifted students 'liked' to participate in these programmes, if they were available and 67% of the students thought that the extension programmes that schools offer were 'enjoyable', with only 17% of the students not finding them so. It seems that it would be useful for the Ministry to review the gifted programmes offered to schools of the Kingdom.

.2. Strategies for learning

It was interesting to note that a relatively large number of gifted students (45%) often 'missed significant points during class' because they were thinking about 'other things'. These results need explanation. Possible reasons are that there are too many subjects in the offered curriculum for them to focus on or that learning effectively or that the teaching methods may have excessively focused on memorization and teacher-led lessons without much student involvement interactions and discussions. The students may have also felt that the offered curriculum was too easy, leading to a loss of concentration. A related

explanation was that what they heard in the classroom was not challenging enough and so were tempted to seek other ways to occupy their thinking.

One of the very interesting findings was that most of the gifted students were keen to understand the materials which they studied. 61% formulated questions to help themselves to focus on their reading. The results revealed that the students developed useful ways of studying and reviewing what is taught in the curriculum. They always wished to understand and think during the learning process as opposed to memorising. Current cognitive psychology recognises that effective learning is correlated to an active commitment and processing of information. Learning is considered, by many, as a thinking sub-product and strongly related to thinking (Cano-Garcia and Hughes, 2000). The researcher had no indicators that teachers adopted any models for higher order questioning or thinking in their teaching. In most countries where gifted education has been in existence for a number of years, Bloom's taxonomy (a well-known theory that is not a theory of intelligence but strongly relates to intelligence and thinking) is used as a framework for introducing higher cognitive challenges in lessons. Bloom (1956) formulated this taxonomy that consists of six levels: knowledge (remembering previously learned material), comprehension (ability to grasp the meaning of material and convey it to others), application (ability to use learnt material in new contexts or situations), analysis (ability to break down data into significant component parts), synthesis (ability to create new structures using combinations of learned parts) and evaluation (ability to judge material in terms of its value for a given purpose).

The importance of differentiating lessons for the gifted has been highlighted in several studies in the past decades (Reis, 2007). The Classroom Practice Survey (Archumbault, 1993), carried out to determine the extent to which gifted students receive differentiated instruction, showed that 61% of the teachers had no training in developing teaching strategies for gifted children. Westberg *et al* (1993) found little differentiation in classrooms, based on 92 observation days. This shortcoming is being addressed through a variety of strategies such as *curriculum compacting, where* the curriculum is modified to eliminate previously mastered work (Reis *et al,* 2003). The lack of challenge and the ramifications of this lack of challenge for gifted students has been highlighted by Reis (2007) who warns us with the serious message that if instructional materials are not above the students' current level of knowledge and understanding, learning is less efficient and intellectual growth may stop. This is consistent with theories that suggest that gifted students are distinguished by their capability to be engaged in higher levels of thinking and

programmes such as Critical Thinking should be made available to them (Renzulli, 2002), the American Education Office (Marland, 1972) and Clark (1992).

The study's finding demonstrated that most of the gifted students are distinguished as being independent learners and adopting study skills, such as preparing questions with answers, thinking and analysing ideas, writing notes and revising before tests. It also showed that the students took notes when they are confused in class to clarify things afterwards. The students demonstrated the ability to organise their study time from the beginning of the academic year, 43% of the students stated that they found enough time to read or review their notes before an examination, although 38% did not find enough time to do this, with 19% not giving a specific answer. These results indicate that most of the students focused on their studies from the beginning of semester and not just during the examination period.

43% of the gifted students did not work on their own without anyone's help, 38% worked independently and solved problems alone, while 20% could not decide on whether they agreed or disagreed about asking for help. In addition, 51% of the students asked for help from other students, and 28% of them did not seek help from peers, when they did not understand something. This shows a number of gifted students have self-reliance in the face of difficulties, while a number of them seemed to believe that co-operation in the solution of a problem is very important.

.2.6 Social Life

What is the social life of the gifted students? The findings and some other studies in Chapter Two, such as that of Emmanouilidou (2007), indicate that most gifted students are distinguished by 'loving' their friends and being able to create good relations with others in addition to being interested in mutual visits between relatives. This seemed to be the case with the students who responded to the questionnaire. It was revealed that the majority of gifted students (90%) had a high number of friends with only 3% having very few friends. The importance of directing gifted students to select positive friends in order to benefit academically and practically and discourage anti-social behaviour or neglection of their study has been highlighted by some experts (Dixon, 1996). Dixon's study confirmed that gifted students can face several possible risks such as alienation, a feeling of isolation and being rejected by their peers and society members. Potentially, this can push these students into adopting behaviours that can be devastating for the self, including academic failure, drug use, alcohol, depression, indifference or even suicide. As far as going to parties is concerned, most (76%) enjoyed attending parties, but 9% did not enjoy

them and 15% of the students were neutral about this social activity. In addition, regarding visiting other members of the family, it was an enjoyable activity for 87% of the gifted students and only 5% of them did not enjoy this. These results and ones earlier in the previous sections state clearly that gifted students in this study have the ability and appreciate the opportunity to establish good relationships.

The Gifted students in this study not only cared about having good relations with others, but also about identifying friends who could help them to share problems with their studies. The majority of gifted students (79%) were interested in identifying students in their class that they could ask for help, in case they needed it. Only 8% of the participants did not know where to ask for help. This result indicates that gifted students are keen to take advantage of their relations with their classmates within the school.

.2.7 The academic and non-academic out of school activities

Which are the academic and non-academic activities that gifted students are involved in after their regular classes? With respect to academic activities, the majority of gifted students spent between 1- 4 hours a week studying, finishing their homework, writing notes and taking part in group discussions. Most gifted students spent 1-4 hours per week in the library (17 % did not go to the library and 11% of them spent 5-10 hours in the library). Another activity that gifted students dedicated 1-4 hours per week was to memorising the Quran, with 33% of gifted students spending between 5 and 10 hours on this activity, while there was 6% who did this for more than 11 hours weekly. Based on these results, it is obvious that most gifted students spend more of their time studying. Many of the students occupied between 5 to 10 hours a week memorising the Quran; this is an indication of religiosity in this region. Reading and memorising the Quran is regarded as something special and virtuous for Muslims and this is because 100% of the population of the Kingdom is Muslim.

Responses to the questionnaire also revealed that gifted students also spent some time on non-academic programmes. For example, it was reported that many of the gifted students (47%) met their friends for 5-10 hours per week with 45% of them spending 1-5 hours socialising. 50% of the students spent 1- 4 hours weekly on computer games while 37% devoted 5-10 hours.

Generally, the findings revealed that gifted students did not spend much time taking part in sports programmes compared with other academic programmes. Half of the students spent

1-4 hours per week on a sport, 34% of them spent 5-10 hours, while just 9% of them spent more than 11 hours on sports.

It was interesting to note that 15% of the students did not go out with friends. Reasons can only be speculated on. Gifted students were probably studious and tried to save their time by not going out of their houses so as to devote that time to study. They may have also felt that they had many academic obligations which limited their free time, or perhaps their families may have influenced their children to reduce the number of times they go out with their friends. Saudi families are known to prevent their teenager children from frequently going out.

The results also showed that the number of gifted students who used the internet and chat rooms was not large. The reasons for this may be the absence of the internet in their houses; or it may that their families forbid them to use the internet, so that they will not be targeted by unfamiliar people through the internet. It may also be that the gifted students felt they needed to spend their time on other seemingly useful things which could help them improve their academic achievement rather than spending time on the internet.

7.2.8 Concluding remarks

Based on the results of the questionnaire analysis, the emerging picture of the Saudi gifted student is one that belongs to well-educated, affluent parents who have high expectations of their children. The children see their parents to be supporting them both spiritually and materially. They were eager to please their parents and had high ambitions and aspired decided to follow professional careers which were consistent with their family background and expectations. They have been selected to have membership of gifted cohorts based on their academic ability as demonstrated in IQ tests and other types of test. Most of the gifted children seem happy, well-adjusted and conformist who respected their teachers and like their schools. They enjoy social life. Most have worked out effective strategies for independent learning. It can only be speculated whether the gifted students experience tensions between the inherent creativity many of them possess, as referred to in Chapter Two, and the cultural expectations of conformity and rules.

Most of the students knew they were on the gifted programmes and felt this helped them to do well. Their preferred subjects were Mathematics, Science and learning the Quran and did not find English lessons easy. Some of the responses to questions and observations suggested that the teaching methods were based on a transmission model and a large number of students felt that the lessons were ‘easy’ although they liked ‘challenging’ tasks.

It appeared that tasks were not differentiated. Enrichment programmes were offered and the students who attended them seemed to have enjoyed them.

It is possible that children who may have the potential to do well, but are from poorer and not well educated may not have been identified as gifted. Based on the responses to the questionnaires, it also seems that the concept of giftedness adopted a uni-dimensional view of ability which can be identified by academic tests and IQ scores.

7.3 Analysis and Explanations of the responses from practitioners' questionnaires

In this section themes emerging from the second dataset based on the questionnaire survey carried out of 52 professionals who worked with gifted children – head teachers, teachers and social workers and administrators and designers of the gifted programme - will be presented. The questionnaire was designed in such a way that it focused on two main themes: the identification of gifted students and the nature of provision for them. Sub-headings are used to highlight items within the two main themes. Emerging themes from this section will be discussed along with the themes that are raised from the interviews with the practitioners, which are presented in the next section.

7.3.1 Issues relating to the Identification of gifted students

7.3.1.1 General awareness of definitions and documentation

As identification of giftedness is bound to be closely related to the working definitions of giftedness, respondents were asked about their awareness of the Saudi Ministry's definition of giftedness. Most of the respondents (69%) replied that they were aware of a formal definition of giftedness by the Ministry of Education, but also although 31% of them had stated that they were not aware of such a definition. Why almost a third of those who were surveyed were not aware of the existence of a definition needs explanation. This may be because any publications documenting definitions and procedures provided by the Education Ministry had not reached all the people concerned or that they were not sufficiently interested to make themselves familiar with any guidelines. This was an issue which the researcher decided to pursue during interviews with the professionals.

A substantial number of participants (58%) reported that their schools had only very recently established an identification programme for the gifted in the last one-to-three-years. Five out of the 52 respondents replied that they did not know there was such a programme. Results also indicated that most of the participants (58%) stated that the identification programme of their school had not changed since it had been introduced. It is

important to point out that 23% of the participants were not aware if there were any changes, which is hardly surprising as many were not initially aware that there was a gifted programme in the first place. These results do suggest that strategies should be developed to make those working on gifted programmes are made aware of national developments.

7.3.1.2 Methods of identification

Now, to focus on the methods used for the identification of gifted children by the Ministry; 42% of the respondents chose verbal reasoning, intelligence and creativity tests as a method of identification which was similar to the responses from the students themselves. Standardised tests were in fact very popular for the identification of giftedness (40%). The teacher nomination method was also popular with 33% of the respondents and 23% of the participants indicated that primary school nominations were also used as a method of identification method. Other methods selected included the use of a checklist of characteristics (19%) and parental nomination (11%) or specialist teacher referrals. It is clear that there is a heavy reliance on tests for identification purposes.

The workers were not sure who would be the appropriate official authority who should be notified about identified gifted children or who was responsible for registering the gifted. Most of the participants (65%) replied that they would contact the Department of Gifted in the Education Administration for registration, whilst 19% replied that it was the responsibility of the school administration and 11% selected the General Administration for Gifted Students of the Ministry of Education. These results highlight the need for sectors to communicate more effectively with each other and have clearer guidance on procedures as well as the roles and responsibilities of personnel with regard to identified cohorts of gifted students. However, it was noted that the majority of the respondents (79%) working in schools did keep a record of their gifted students, although there are some schools which did not keep a record of their gifted students. This was also noted by the researcher through his visits to some schools, where head teachers did not know the number or names of the students who were classified by the Ministry of Education as ‘gifted’ in their schools.

Another interesting finding was that there was little agreement among professionals concerning the percentage of gifted students in their schools, with 33% of the participants not being aware of the number of gifted students in their schools. 25% thought that the number was less than 2% of the school population and 21% indicated a percentage between 2 - 4%.The results illustrate a lack of shared understanding and agreement between workers about the number of gifted students in their schools. Again, this

highlights the importance of greater clarity, amongst professionals, about registration processes and procedures for following up gifted students' progress. The study of Abu Nyan *et al* (1997) has pointed out the weaknesses of the methods that were used in the Kingdom's schools.

7.3.2 Aspects of Provision

7.3.2.1 Extension programmes

What are the provisions for gifted students in Saudi Schools? 50% of the participants indicated that their school provided academic extension for its gifted students during school hours, at the same time 44% of them replied that their school did not have this, again highlighting the possible lack of clarity and communication. The figures do however, indicate that there is a shortage in the number of programmes, from the viewpoint of the workers, confirmed also from the student responses and notes the researcher kept during the time of the investigation. In addition to a perceived lack of such programmes, there was an expressed shortage of gifted programmes after school hours. The results showed that 65% of the participants replied that there were no such programmes at their schools, whereas 29% indicated there were. The researcher had also observed that non-academic programmes were very few in the schools as verified by the 69% who reported that their schools did not have any non-academic, after-school activities for the gifted students; only 27% responded to the contrary. These results suggest that many schools within the area where the study was conducted did not have sufficient provision for gifted students in terms of extension programmes.

The findings did show that some schools had access to other programmes, in addition to the academic and non-academic programmes within their schools - such as summer schools (50%), Thursday Master Classes (8%) and Learning Excursion Programmes (2%). No school had a 'Children's University' Programme, but 10% reported that there were other out-of-school programmes. These results suggest that the number and nature of such programmes need to be reviewed, taking into account the wishes of the gifted students and the perceptions of the practitioners.

7.3.2.2 In-class provision

In response to the question exploring the level of provision for gifted children, some weaknesses within school provision were highlighted. A large number of the respondents (82%) stated that there was no in class differentiation offered, although 46% of the participants replied that enrichment programmes were offered and 29% reported that they had advanced groups or 'sitting across' in single year groups; 17% of the participants said

that they had an advanced group or sitting-across-in-more-than-one-year group. Finally, 4% reported they offered an acceleration programme which is another form of provision offered to gifted students in many countries. These suggest a need for reviewing the current level of provision and the type of service programmes available for gifted students in these schools.

7.3.2.3 Policy related issues in provision

Following these findings, a lot of other services were also considered to be absent or small in number. This was shown by many of the workers who replied that there was no policy for the gifted students of their schools (55%) and 89% reported that they did not have a special teacher responsible for gifted education. Furthermore, 60% answered that there were no specially designed classes for the gifted students. These findings suggest that a lot of schools may be lacking in specialist teachers in the field of giftedness. This was an area the researcher planned to explore further through his visits and interviews. It was also found that there was confusion about the name of the official person who registers the gifted cohorts. This highlights a real limitation, as the workers were not sure of which person was responsible for the coordination of provision for the gifted student was. Some named this person as the 'gifted teacher' (44%), as the 'the gifted students' practitioner' (19%), a 'social worker' (17%) or the 'teacher' (6%). This result suggests a lack of clarity about the person who should be responsible for co-ordinating provision for gifted students in these schools and this may have serious implications for making effective provision.

It was also clear from the findings that social workers did not play a major role with gifted students, despite being considered by the Ministry to be one of the most significant specialists to support gifted children and who are to play a positive role in activation of gifted programmes. 64% of the respondents replied that the social worker did not work with the gifted with only 27% replying to the contrary and 10% did not even know about their role. These results indicate the importance of activating the role of the social worker to work with gifted programmes in these schools.

Most of the participants (64%) reported that there were no special schools for the gifted in Saudi Arabia, but 15% reported that there was such a type of school. But, there was agreement on the perceived number of special schools for the gifted in Saudi Arabia, as 92% of the respondents replied that there were no special schools, and 8% of the respondents mentioned there was 'one' such school. The results indicate a lack of awareness among workers, particularly as there are in fact two special schools for gifted students in the area where the research took place, again highlighting the lack of communication between parties involved in gifted education.

It seems that many of the workers had no definite knowledge about the gifted programmes and services, which raises questions about how such workers or the students can benefit from the services and programmes offered if they are unfamiliar with them. This can inevitably lead to the families of students not knowing about what is on offer. All of this suggests that the Ministry should publicise available services for gifted students through brochures, workshops and advertisements much more widely.

7.3.2.4 Aspect relating to the training of workers

It emerged that some workers (63%) knew of the existence of training programmes to teach gifted students, but there still remained a group of them who were not aware of such programmes (25%). Moreover, 73% of them indicated that they themselves had not taken any type of training in the field of giftedness, but 27% had had such training. These results indicate that many of the staff work with gifted students without any special training in the gifted field. Al-Ghamdi (2007) confirms that the lack of attention to manpower trained in basic education in the Kingdom is one of the administrative obstacles in catering for gifted students, since the lack of such skills will not help to establish and regulate the use of adequate and effective methods for the detection of talent and making provision.

This impels us to ask how workers felt able to deal with a group about whom they had very little expertise. There could be misunderstandings and experimentation with children's education. It seems many of the workers felt there as insufficient support for them within the gifted field. The perceived inadequacy of the training programmes for the workers was one of the themes noted by the researcher during his visits at the time of the investigation

Since the workers were not satisfied with the workshops that they were offered, they suggested the need for more useful workshops in the gifted field, with 38% mentioning that training in identification methods would be helpful; 12% suggesting that ways of dealing with and caring for the gifted would be helpful; 12% regarding the ways of developing and cultivating giftedness as an important area of teacher training. 8% of the respondents believed that training needed to focus on the latest developments in gifted education; and finally, 8% of the participants believed that training needed to focus on ways of condensing the syllabus. All these underline the need for a review of the training provided for practitioners.

The definition of 'gifted students' that the Ministry was using was perceived in various ways by the participants. 35% of the respondents felt that it was very good, 27% replied that it was good, 14% rated it as satisfactory, but 14% viewed it as being bad. The result

shows that there is certainly a number of workers who are at least not entirely satisfied with the definition of giftedness given by the Education Ministry. Possible reasons could be that the concept of giftedness was not clearly expressed by the Ministry or not having clearly written policies.

7.3.2.5 Concluding remarks

Responses to the questionnaires by the practitioners suggest a mixed picture emerging. There seems to be a lack of communication and sharing of information about what is expected from schools and what was on offer. There was a strong suggestion that the predominant method of identification as test based with some other forms of identification used by some. The need for shared understandings of the concepts and definitions was highlighted.

With regard to the nature of provision, there was a perceived lack of extension programmes which was also highlighted by the students. Perhaps a major weakness in provision is the lack of differentiated provision within the classroom where the students spend most of their time. There were some instances of acceleration and advanced learning opportunities being provided. With regard to policy issues and knowledge about what was available for gifted students, greater clarity was needed. The social workers' role needs to be defined more clearly. It also seems that staff training issues and needs should be carefully reviewed and any shortcomings rectified.

7.4 Analysis and explanations of the practitioner interviews

In this section, the themes from the third dataset - interviews with 15 practitioners who are major players within gifted education in Saudi Arabia - are presented. The in-depth, semi-structured interviews helped to contextualise and supplement the quantitative information gathered. It also helped to triangulate the data from other sources, thus enhancing the validity and trustworthiness of the findings.

7.4.1 Establishment of gifted education

The majority of those interviewed indicated that the gifted programmes in the Kingdom of Saudi Arabia are still new and restricted to certain areas which need development and more financial support. They felt that further development was required in several aspects, such as a review of the curriculum, staff training and the programmes offered to the students. The need to review the existing methods of identification was stressed. It was also pointed out that what was available should be more widely available in more regions. This is in

agreement with other studies such as that of Almarefah (1999), have commented on these which can weaken gifted education in Saudi Arabia. The issues of early identification and providing for gifted students earlier in their lives were raised.

7.4. Definitions of a Gifted Student and issues relating to identification

The majority of the interviewees reported that gifted programmes and the definition of giftedness were narrowly focused on those who get high marks in academic subjects. Students were identified as 'gifted' through academic tests, supplemented by some use of Creativity and Wechsler tests. They also felt that current gifted programmes accepted students who had high marks in school subjects, and did not consider other abilities such as Sport, Creativity or Communications. This was consistent with the information gathered by the researcher during his visits to schools and programmes for the gifted. This aspect was also highlighted in the questionnaire responses from the students and that of the practitioners, which were presented earlier in this Chapter.

There also seemed to be a lack of systematic use of identification procedures. Names of identified cohorts of gifted children were kept centrally, which was not always accessible or updated. The ranges of identified gifted students were cited to vary from 2 to 5%.

This weakness of a narrow focus on academically gifted students has been highlighted by experts throughout the past two decades. Recent theories emphasize the importance of using a broadened conception of giftedness, which include a multi-dimensional view of ability where Creative Arts and Sports would be given equal status as academic talent. These have been discussed in detail earlier in this Chapter. The view of the practitioners suggested that gifted programmes must be designed in such a way so as to provide opportunities for nurturing the gifts and talents of all groups, not just those who are academically talented.

7.4.3 Communication issues

There seemed to be a lack of communication between different stakeholders. There was some confusion between the workers themselves regarding who actually was responsible for registering 'gifted' students. It can be assumed that if the workers themselves did not know who was responsible for aspects of gifted education it was unlikely that the students' families would be fully aware of what gifted programmes involve and what was on offer.

The interviewees stated that the number of Care centres for gifted students in the Kingdom was 31 for males and 20 for females till the year 2005. Although the number of such

Centres was increasing, in comparison to the results of previous studies, this number was still too small considering the large number of districts in the Saudi Kingdom and the vast areas they cover. One of the practitioners summarized the responsibility of these Centres as the 'identification' of gifted students and sponsoring of programmes for during and after school hours and in the holiday period. The staff working at the Centres were expected to provide support and encouragement for mainstream schools including the provision of manpower and technical support for newly established programmes. It was also stated that the number of employees in each of the Centres was too small for it to effectively play its role in working with the Ministry on specialised programmes for the gifted. Although the role of the Centres was known to the practitioners it was stated that, there was insufficient expertise and a lack of experience amongst the personnel. Al-Ghamdi (2007) had observed that the lack of attention to manpower who are trained in gifted education in the Kingdom was one of the administrative obstacles to catering for gifted students. The lack of such skills would not help to establish and regulate the use of adequate and effective methods for the detection of talent and provide proper and thorough care for them.

7.4.4 Academic and or non - academic extension programmes

What did the Ministry of Education provide for gifted students in their schools? Most of the interviewees stated that the Ministry of Education was making an effort to provide both academic and non-academic programmes for the gifted. These were enrichment programmes, such as evening sessions, Thursday programmes and summer forums. In addition, the Ministry had introduced some training programmes, such as mutual thinking strategies, remote thinking and problem-solving. However, it was felt that the enrichment programmes provided were very few to meet the needs of the large number of schools in the Kingdom. As some of the interviewees indicated, these programmes were only available in 123 schools out of the thousands that were all over the Kingdom during 2005. These programmes also faced some difficulties such as lack of financial support, which required some schools to seek donations from businesses. The lack of choice for the students forced them to attend programmes which may not have been suitable, thereby causing weariness for both the students and teachers. A lack of personnel in running the programmes also made it difficult to implement programmes which were offered. Some teachers were dissatisfied with the programmes as they had no clear idea about what these programmes offered, which led to resentment because their students experienced programmes which they did not know enough about.

These views are consistent with those of previously mentioned studies such as Alemselm's and Zainal's (1992b), who stated that gifted students' programmes in the Kingdom are facing many problems, especially a lack of facilities as well as experienced and qualified workers. Alemselm and Zainal (1992b) emphasised that the absence of educational devices and an absence of facilities that are required for gifted students' programmes led to difficulties which prevented provision for gifted students matched their needs. The absence of specialised teachers in designing and carrying out the programmes and activities for gifted students remained a problem.

Having a Care centre for gifted students in every city in the Kingdom was one of the suggestions made by the practitioners. It was reported that there were 18 specialist teachers in the whole of the Al-Qasim region, although there are hundreds of schools in that area. It was pointed out that this number of teachers did not serve all the students' needs in the programmes for the gifted, as the ratio between teacher and student was clearly unbalanced. In addition to this, a number of practitioners felt that there should be a full-time teacher responsible for gifted students in every school. 'Acceleration' programmes were not activated in the Kingdom except in some restricted regions despite the fact that the education system recommended this as a strategy.

7.4. Private Schools for the Gifted

Does the Ministry of Education provide Private Schools for the Gifted? Most interviewees were aware of the existence of two private schools for the gifted in the city of Burideah. These schools focused on students with high academic ability. One of the interviewees stated that a student must get 90% marks in all subjects to join this school. This may result in several gifted students who are talented in other fields such as Creativity and Sports not being allowed to attend these schools.

There were some disagreements between the interviewees about the role of these private schools. Some felt that the decision to have such schools strengthened the focus on the gifted and develop a competitive environment. However, others were of the opinion that such private schools had a negative impact, such as creating negative competition between the gifted, isolating the gifted students from society, causing the gifted to be selfish and not fostering a co-operative spirit between the students.

7.4.6 Future plans

During the interviews, it was revealed that the Ministry had planned new initiatives for the future with the objectives of:

- Increasing the allocated funds for gifted students.
- Establishing Care centres for the gifted in each education administration as a minimum.
- Having more qualified and full-time teachers in each school for the gifted.
- Establishing a private gifted students' academy.
- Introducing new routes for training the gifted teachers in the schools and colleges.

7.4. Staff training in the gifted field in the schools

Many of the interviewees who had attended courses on gifted education. However, they claimed that such programmes were only available for the employees and teachers at the gifted Care centres. More than 80 courses for employees all over the schools of the Kingdom were offered during 2005. But it was also noted that these courses were few in number compared to the total number of schools in the Kingdom. In addition, these courses focused on just the workers who work with the gifted, which is considered a weakness because they felt that all courses should be available to all the workers in schools, especially the head teacher and class teachers as they are the ones who regularly have to deal with the gifted. While taking notes, the researcher had noted that many of the courses on offer on gifted education tended to be theoretical rather than practical. For example, most of the courses were conducted as 'lectures' rather than as 'practical' workshops. This suggests that these courses may not adequately train the teachers to apply their skills in practical situations within the classroom.

7.4.8 Concluding remarks

The emerging picture of gifted education, based on the interviews with practitioners, is that much effort was being made by the Ministry to offer an effective programme for gifted students. There were ambitious plans to expand and enhance provision. The interviews also highlighted a number of issues which needed attention. A re-thinking of the concept of ability and a more effective system of identification which acknowledged multiple talents was required. Problems which were highlighted included a lack of sufficient financial allocation for gifted education, a need for more effective communication, a lack of staff in the gifted Care centers and inadequate co-ordination between the 'gifted' schools and

centres. The need for a review of the nature of the curriculum, updating practitioners on recent developments in gifted education and more training for the practitioners was raised.

In conclusion, the results from the interviews were consistent with the responses to questionnaire which were distributed to the gifted students and to the practitioners as well as the contents of the researcher's notes. In most cases, the themes that emerged from the interviews confirmed earlier findings.

7.5 Further discussion

The responses to students' questionnaires raised some important themes which were discussed in some detail in section 7.2. In addition to these themes additional issues and insights were highlighted by the responses from the practitioners' questionnaires and interviews with personnel involved in gifted education. In this section these additional themes are discussed, making references to earlier discussion where appropriate. Interpretations of the findings are presented and questions raised supported by a range of literature.

7.5.1 Issues relating to identification of gifted students

The identification of gifted students is one of the major areas explored through this study and is one of international significance. Based on the data gathered, a number of issues may be raised. Some of these are as follows:

- Practitioners in Saudi Arabia sought greater clarity and more effective methods and training in methods of identification
- Identification was predominantly based on a narrow definition of giftedness as demonstrated by academic ability, test scores and IQ tests.
- Creative and sport talents seem to have a lower status
- It seems that most students were identified rather late in their school life.
- It seemed that the identified cohorts of gifted children belonged to affluent and well educated families, raising questions of equal access to programmes and inclusion.

7.5.1.1 The complexity of identifying the gifted

As a background to the discussions, it must be pointed out that the whole concept of identification of a cohort of children and expressing them as a percentage measure and referring to them as *gifted* seems to have posed the greatest challenge to the teaching

profession around the world and was highlighted in the UK during the first phase of implementation of the government policy on gifted education (Casey and Koshy, 2005a). According to Eyre (2001), identification issues were presenting the most concern for UK schools at the start of the gifted education initiative. Eyre maintains that although the *gifted and talented* programme has enjoyed a good deal of success in raising awareness of the need for enhanced curriculum provision, *the creation of the cohort has been the most problematic part of the policy.*

A careful analysis of available research literature provides some explanations of the difficulties, one of which is the terminology itself. A universal acceptance of the semantics of the terminology has been difficult due to a range of social, economic and political perspectives in the UK so a unified definition could never materialize (Koshy and Casey, 2005a). Significantly, Freeman (1998) uses the title *Educating the Very Able* for her review of international research which was commissioned by the British government. In her report she throws some light on the nature of the complexity by stating that there are over 100 definitions to describe these pupils such as very *able, high ability* and *the troublesome word gifted* (as she puts it whether such difficulties existed within the Saudi programme was not explored in this study although it is a practical aspect which needs to be raised. How did the teachers feel about the terminology? Was it the complexity of the term itself that posed difficulties? As was discussed in Chapter Two, in the 1950s the term *gifted* was used on the basis of the results of Intelligence Quotient tests carried out by Terman (1925) for the purpose of selecting pupils for specially designed educational programmes. Terman used a cut-off point of an IQ score of 140 for selection, although exceptions were made to select pupils down to a score of 135 (Feldhusen, 2003). An IQ measure can predict academic and examination success (Renzulli, 2005). It seems that this view of ability is the one being used in the Saudi context where this study was conducted. A broadening of the concept of ability and research in the last few decades has led to a revision of Terman's uni-dimensional definition of giftedness based on IQ scores. Perhaps a review of the present policy would be useful. Another related issue which was highlighted was the narrow definition of giftedness. In the UK context, the British government's definition is:

> *Broadly speaking, 'gifted' pupils are defined as those with ability in one or more curriculum subjects, while 'talented' pupils are those with talents in sports or creative arts (Dracup, 2003).*

In the Saudi Arabian context only the term gifted was used; and this was mainly to describe academic ability.

7.5.1.2 Early identification

The study revealed that the identification of gifted students took place mostly in the teenage years. This aspect may need re-consideration. Research has shown the importance of early identification and provision for younger gifted children has been highlighted by Bloom (1985) who studied world-class achievers in sports, arts and academic subjects. His case studies showed that giftedness can be observed in early childhood and that many of the eminent achievers were introduced to the area of their talent by their families early in life. In the context of the launch of his Multiple Intelligences theory, Gardner asserts (1983) that it should be possible to identify an individual's intellectual profile (or proclivities) at an early age and then draw upon this knowledge to enhance that person's educational opportunities and options. Should gifted students in Saudi Arabia be identified earlier in their life and their gifts and talents nurtured?

7.5.1.3 The need for flexibility in the identification process

It also needs to be pointed out that recent literature (Sternberg, 2000: 55) supports the concept of giftedness as *developing* rather than *developed* expertise. Sternberg maintains that this expertise is not an *end-state*, but a process of continual development He asserts that gifted individuals need to continually be developing the kinds of expertise that render them *gifted* and that if they do not, they stop being identified as gifted or become *gifted has beens*. Further support for the developing nature of giftedness comes from Clark (2001: 5) who challenges the concept of the genetically inherited, immutable view of intelligence as being no longer valid. Based on brain function research she declares:

> *Intelligence must be considered dynamic just as the growth of the functions of the brain is dynamic with higher levels of intelligence actualised only when appropriate challenge is provided.*

If we subscribe to the theory what giftedness can be developed, there are significant implications for the identification process itself. Heavy reliance on test scores and having a list of gifted students based on test performance may mean missing students who may not demonstrate high ability at the time of taking tests, but may emerge as possessing high ability at a later stage. The need for flexibility and constant revision of gifted cohorts would be necessary.

Another aspect to be considered is the kind of flexibility needed in the identification process with reference to student who may not do well in tests, or lacking in confidence for all sorts of reasons or have serious social and economic deprivation. The need for adopting an inclusive strategy should be considered. There needs to be more effective strategies for identifying latent talent and the talents of pupils who do not exhibit talent in the traditional

sense. Studies carried out by Casey and Koshy (2002) support the existence of *submerged talent* (Koshy and Casey, 2005a) in inner-city schools in London which may often go unrecognised, due to external factors such as lack of parental support, problems of staff recruitment within their schools, lack of motivation and the absence of a robust knowledge framework due to poor schooling. The authors found that many children in inner-city schools who showed their *street-smartness* in problem solving activities scored relatively lower marks in academic tests.

7.5.1.4 Using a variety of sources of information

In Chapter Two the most commonly used methods for the identification of gifted students were listed. Using IQ tests was one of the ways employed to measure ability which involves determining the level of ability using an IQ score above which a child is referred to as gifted. In the most commonly used Wechsler test, a score of 130 is used as a cut-off point. Although the use of IQ tests is contested in terms of their limitations - cultural bias and its inability to measure subject specific skills and multiple talents – it is still used in many countries and this is the case in Saudi Arabia.

Koshy (1997) maintains that teacher recommendation based on teacher assessment should be a favoured and effective option because teachers, along with the parents, are in the best possible position to make judgements about children's abilities. This method was only used by a small number of teachers. The advice from Freeman (1998) would be a useful reference point for the Saudi policy. Freeman recommends the use of outcomes of particular tasks 'and not test scores' for smaller groups, and discussions related to subject as a method of teacher identification. Freeman also suggests that motivation and interest may also be indicators of giftedness and that multiple sources of information should be used for identification *and* that out of school activities may give valuable information to the teacher.

Checklists, from both parents and teachers, which are are commonly used in the identification of gifted students did not get mentioned by any of the respondents as a method used for identification. The other noticeable feature was that parents did not play a vital role in the identification process; this is important as parents are the individuals who know their children better than most and n see their children in various contexts, including social situations.

To conclude, two strategies could be employed in order to improve aspects of identification of gifted pupils. First, practitioners need to have clear guidelines on

identification procedures which should take note of the best available international theory and research. Secondly, there should be practical workshops for all those who are involved in the identification process to help them to acquire a shared understanding of the process. Practical sessions could also include moderation of how students are identified, as well as team discussions of how to improve the process.

7.5.2 Issues relating to the provision for gifted students

The study explored several aspects of provision for gifted children in Saudi Arabia. Based on the data collected, this section discusses the following themes that emerged.

- Enrichment projects were provided for the students and it seemed that most students enjoyed these although attendance at these was patchy. There was a lack of information of what was available and many practitioners themselves were not aware of what was available. The need for more enrichment projects was raised.
- There was strong indications that more attention need to be given to strategies for in-class provision such as differentiation
- The need for more training and workshops for teachers and for those who were working with gifted students was highlighted.
- Although there were suggestions that some accelerated programmes were available, provision in terms of organizational structures did not seem to be in operation.

7.5.2.1 Provision through enrichment programmes

There was clearly a need for offering more enrichment programmes which seemed to be a popular means of provision. It would seem that students' needs were not taken into account in the design of these projects. There was little suggestion of variety or any kind of systematic evaluation of quality of these programmes. The programmes appeared to be 'bolted on' rather than carefully designed to make them of a coherent policy of provision for gifted students.

In Chapter Two a number of models of enrichment projects were discussed. Renzulli's (1994) Enrichment Triad is a well-structured and well-researched model which addresses the three attributes of giftedness - above average ability, creativity and task commitment. The three components of the model provided enrichment at different levels – in the classroom, in small groups, with built in training of skills and individual projects. Renzulli's model also gives children opportunities to gain knowledge and awareness of their own cognitive processes through the strong meta-cognitive component within the

model. It would seem that there is a need for greater detail to both the design and organisation of enrichment projects and it would be useful for the practitioners to be involved in the design and evaluation of their effectiveness.

7.5.2.2 Provision in the classroom

Greater efforts could be made to enhance classroom provision. Two basic principles need to be considered. First, education should be an enriching experience for all children and the starting point for talent development should be within the classroom. An enriched curriculum which provides opportunities for challenge would also help the identification process. Secondly, as it is generally accepted that giftedness is often domain-specific (van Tassel- Baska, 1998), provision should take the special abilities and interests of the pupils into account. The sovereignty of the gifted learner and the right of a rewarding educational experience can co-exist in a setting where provision is based on a process-rich curriculum which encourages curiosity and creativity (Koshy and Casey, 2005b).

Within the classroom, adaptations would be necessary. There will be pupils who may already know what is being taught to the rest of the class as well as those fast learners who are capable of mastering what is being taught to the rest of the class within a shorter time scale. These pupils would need to be provided with individual or group projects, which require them to engage in tasks, offering higher cognitive demand. These tasks may highlight the need for learning advanced content and methodology. At some stage individual guidance will need to be provided to equip them with these. Within the regular classroom, the option for individual students to pursue their special interests could also be provided. The time for undertaking these individual enquiries could be provided by some kind of *curriculum compacting* (Renzulli, 1994), which involves streamlining mastered material that has already been mastered by pupils.

Curriculum differentiation is a buzzword which needs to be considered within the context of teaching gifted and talented pupils. It may be useful here to note Gardner's (1983) definition of giftedness as the ability to solve problems or to create products that are valued within one or more cultural settings. Two conditions need to be met for a gifted pupil to fulfil the above criteria. One is the need to assess the specific abilities demonstrated by children, as it is unlikely that a student will excel in several areas and have the capability to produce something of outstanding ability in each of those areas. Gardner's theory of individuals possessing several intelligences does offer a broad framework, for the practitioner, for assessing children's special aptitudes. The shift in focus, suggested by Gardner, is that we should ask 'how is he smart, instead of how smart is he?' when dealing

with gifted pupils. Consideration of an individual's best area of talent provides a framework for curriculum planning so that opportunities can be offered which maximise the development of potential. Then, there is a need to consider the process of learning something in depth, going beyond rote-learning and trying to look deeper into the subject matter and the methodology of a subject. This would involve considering multiple perspectives of an idea and to demystify the complexity of the concepts. This would be intellectually satisfying for the student and should provide the intrinsic motivation required for following one's ideas.

Bloom's (1956) taxonomy, which is a popular framework for posing higher order questions and differentiation, which was discussed earlier in this Chapter - enhances the learning experiences of all children could be used.

7.5.2.3 Provision in the classroom through organisation

There were suggestions that some use of accelerated study was offered to students. If pupils were identified as exceptionally able in any area of study, the strategy of *acceleration* can sometimes be considered. Fast-tracking was, in fact, one of the strategies recommend by the UK government (DfEE, 1997) for very able students. For the practitioner, making sense of the word - acceleration and what it entails - is in itself a challenge. Although many interpretations exist, the most common one involves either moving children up to a class of higher age group or teaching them content designed for older children. This often leads to early examination entry. Advocates of this strategy (Stanley, 1991; Van Tassel-Baska (2001) encourage it as a teaching style which provides intervention which is intense and is at a faster rate. A system developed by Johns Hopkins's University in the USA provides accelerated learning programmes for pupils who are selected on the basis of mathematics and verbal reasoning. These pupils are provided teaching programmes which are described as providing *optimal match* for their ability and currently it serves over 200,000 students internationally (Van Tassel -Baska, 2001)

7.5.2.4 Training for practitioners

The need for more training of teachers and other practitioners was highlighted both in the questionnaires responses and during interviews. As ultimately the quality of how gifted children are educated is to great extent depends on the teachers' knowledge and understanding of issues, this is one area which would require further development. Her Majesty's inspectorate in the UK (1992) stressed the importance of the teachers' role

stating that when classroom lesson planning takes the needs of gifted children into account, it is likely to raise teacher expectations and achievement of all children. Research conducted in other countries indicates that teachers' views of high achieving pupils can have a significant influence on both the identification process and classroom provision for them (Geake and Gross, 2008). Koshy and Casey, (1997) have shown that training sessions which provide and opportunities for teachers to discuss the complexities of the concept of giftedness and ways of making effective provision can influence their practice. It would seem that an extended training programme for practitioners addressing both theory and practice in gifted education on all aspects of meeting the needs of gifted children would be very useful in the Saudi Arabian context. Such a training programme could include issues of identification, classroom planning and practice, the design and evaluation of enrichment projects and training in thinking skills, some of which were mentioned by those who took part in the study. Of course, opportunities should be provided for all those who work with gifted children to attend these sessions.

7.5.2.5 Features which help to support effective provision for gifted students

The following features, suggested by Her Majesty's school inspectorate in the UK (HMI, 1992) as contributing to high quality provision for higher ability students would be worthy of consideration:

- Commitment by head teachers and senior management
- Involvement of staff in in-service training
- The presence of an active co-ordinator
- Good Local Education Authority support
- Close attention to the needs of the individual pupil through differentiation of tasks
- High expectations of what pupils can achieve
- A stimulating environment
- Variation in pace, teaching style and classroom organisation.

7.6 Summary

In this chapter the findings of the study were discussed. The discussions were structured under the three stages of data collection and analysis: responses to questionnaires from students who were identified as gifted, questionnaire responses from key workers and data from interviews with a sample of people who worked with gifted students in Saudi Arabia. Field notes were used to supplement the information gathered. Based on the students' responses a number of issues relating to the nature of the students selected for the

programme were discussed. These included the students' background, methods of identification, their preferred school subjects, school life, attitudes to enrichment programmes and work habits. In the second section emerging themes from the second set of data, based on the workers' responses, were presented. These themes were largely consistent with those from the students' views. Some important features of the nature of gifted education such as methods of identification, nature of enrichment programmes and the need for greater clarity and consistency of what was being offered were highlighted.

In the final section the discussion focused on the themes that emerged from the interviews with people who work with gifted programmes who expressed some concerns such as a lack of financial allocation, a greater need for co-ordination between schools and gifted centres and the need for a review of the curriculum and professional development structures. In the conclusion of this Chapter a list of general issues which needed consideration and action were listed and discussed further.

The next Chapter presents the conclusions of the study, its implications and the contribution to knowledge. Limitations of the study, personal learning and ideas for future research are also presented.

CHAPTER 8

CONCLUSIONS AND RECOMMENDATIONS

CHAPTER 8

Conclusions and Recommendations

8.1 Introduction

This study adds to a very slowly growing body of literature that highlight the importance of examining the programmes for gifted students adopted by the Ministry of Education in the Kingdom of Saudi Arabia. As far as the researcher is aware, there is very little research which investigates the different aspects of such programmes. This study is probably the first study at doctoral level which evaluates the gifted programmes of the Ministry of Education from the point of view of the students, the schools and the workers involved in such programmes.

8.2 Contribution to knowledge and achievement of the research aims

What contribution to knowledge has my study made? Looking back and reflecting on the work carried out, it can be seen that an ambitious programme for meeting the needs of gifted students is in operation within Saudi Arabia, which is a developing country with a different cultural background to other countries such as the USA, where gifted programmes have been in operation for several decades. Due to the special features of the social and cultural environment of Saudi Arabia, an assessment of the impact of the gifted education initiative there has the potential to make an important contribution to other countries considering similar initiatives – especially in many other Arab countries where there are no gifted education policies in existence. The study also makes an international contribution to the history of gifted education and its development. This study has attempted to provide a map of existing literature on gifted education to navigate readers through a complex field of education beset with controversies and conflicting ideologies and this has been achieved. It is the researcher's intention to have the literature review and the study translated into Arabic and widely disseminated.

One of the personal learning objectives for the researcher in conducting this study was to learn about gifted education in general. Undertaking a review of relevant international literature on gifted education has provided me with a robust understanding of issues. Based on my enhanced understanding of aspects of gifted education, I have identified some problems and salient issues in the provision for the gifted in my own country. This is one of the main contributions of this study. On the basis of my findings I will be able to make

recommendations to support the government of Saudi Arabia to improve the nature of the provision offered to gifted students.

The specific aims of the study were to explore the effectiveness and any possible weaknesses of gifted programmes in Saudi Arabia, from the perspectives of all parties involved, to draw conclusions about the Saudi programmes and to make recommendations. In order to achieve the aims, the following specific research questions were used:

- What is the nature of the programmes for gifted students in the Ministry of Education in the Kingdom of Saudi Arabia?
- How does the Ministry of Education in Saudi Arabia define gifted students?
- How does the Ministry identify and support gifted students?
- What is the nature of programmes for gifted students in the Ministry of Education in the Kingdom of Saudi Arabia?

The study focused on the research questions at every stage of the research, either theoretically or practically. The researcher also oversaw the validity and procedural aspects of the questionnaire through sitting with students and workers when they answered the questions in order to clarify any ambiguity and confusion on their behalf. In the case of female students and participants, the researcher had to employ female researchers after training them as much as possible in the research methods. In general, the results of the study agreed with many of the theoretical studies mentioned in Chapter Two.

The study used mixed methods for collecting information; the researcher obtained data with the aid of questionnaires, interviews, observations and documentation. The mixed methods employed in the research made it possible to triangulate both qualitative and quantitative research. Further to these methods, the study used the electronic program (SPSS) to gather and analyse the data as well as to design the tables and diagrams.

8.3 General conclusions

The introduction of a ‘gifted’ component into national educational policy requires a national objective to give such an innovation justification. Regardless of whether that objective has been clearly formulated and publicly declared, it may be assumed that a country’s ‘gifted’ will have the insights and rationality to substantially contribute to the country’s progress and the widespread enhancement of the well-being of its citizens. The attempt of the Saudi government to introduce such a programme is commendable.

This research project has enabled the researcher to generate an overview of the Ministry's gifted education initiative and find supporting evidence for recommendations which could modify and elaborate the policy and its implementation. To provide a succinct coherence to that review and the associated conclusions and recommendations, the following commentary will be presented in four parts comprising **identification, provision**, **policy** and **information.**

The predominant method of **identification** has been that of intelligence tests and other tests associated with overall academic performance. When embarking on a review of the progress of gifted education in Saudi Arabia, the Ministry could consider the following:

Since the Intelligent Quotient is assumed to be normally distributed does that statistical spread throughout the country correlate with the distribution of income? Since the selected gifted students have predominantly come from affluent, well-educated families, is there a need to direct more attention towards affluent families? This would ensure fairness and equity. The focus on a one-dimensional statistical view of intelligence and identifying students using academic tests alone has been challenged by international experts, as presented in Chapters Two and Seven. A multidimensional system of assessment which includes nomination by parents, teachers, peer groups and the students themselves is worthy of consideration. The Ministry should also consider broadening its approach to intellectual ability and the possible consequences of doing so. Talents other than academic excellence should be identified and encouraged. Other questions which need to be raised include the age at which students are identified as gifted. It seems that, in the schools where research was carried out, students were identified only in the secondary schools. Earlier identification and nurturing of gifts and talents should be considered.

The educational **provision** for gifted students seems to be patchy; both strategy and curriculum modification have been found to be inadequate. Curriculum differentiation needs serious consideration. Adopting this strategy could not only elevate the level of learning experiences for all children, it could in fact uncover more undetected gifted and talented. Acceleration is an option, though complex in practical terms. Enrichment projects - both in and out of school - could be designed more carefully, taking students' needs and interests into account. Strategies such as curriculum compacting should encourage students to stay focused on their lessons and enjoy the 'challenge' they specifically mentioned in their responses to the questionnaires.

The **organisation** of the gifted strand of policy seem well intentioned, but unevenly targeted at different geographical areas. The role of Care Centres – each being assigned a specified list of schools - could become dynamic with substantial educational improvements resulting in schools being served. However, the staffing – both in terms of numbers and training - is in need of urgent attention. An increase in the number of such centres covering the geographical areas of the country could have a major impact on national progress. There seems to be an urgent need for staff training and professional development.

The flow of **information** is also of fundamental importance. Documents emanating from the Ministry need to be clear, illuminating and carefully read by recipients. Staff involved in implementing the gifted policy need to be well informed of a variety of factors influencing their role. Ministry directives, theoretical developments and the lists of identified students should be inaccessible.

As for a national policy on curriculum modification to take into account the learning requirements and dispositions of the learners, this has to be a division of labour. The ministry can produce directives, others can engage in identification procedures. Yet, curriculum materials require special talents for their production. Learning materials could be imported into Saudi Arabia from countries with a track record in gifted education and research. Cultural differences will frequently make such imports unsuitable for use in Saudi classrooms - after translation of course. Nevertheless the imported materials could provide some stimulus and guidelines for Saudi curriculum specialists.

8.4 Difficulties encountered

Many difficulties were encountered during this study. First of all, there were a number of rules and regulations faced by the researcher while trying to get permission to enter the respective schools. Permission was asked from the Ministry of Education by way of e-mail, but there was no response received, forcing the researcher to travel from the UK to Saudi Arabia just to get permission. Whilst in Saudi Arabia, the researcher had to travel several times from Buraidah to the Ministry of Education situated in Riyadh, a long distance away. The researcher also tried to meet the Minister of Education, who at the time was on a mission trip. Apart from the schools' accessibility problems, the researcher also experienced difficulties in getting some information in relation to gifted students and the programmes available, as well as schools' statistics.

Another problem was the language difference. There were no English-speaking people in the Ministry of Education, which meant that all the documents, for the collection of data, had to be translated from Arabic to English and vice versa. Finally, due to the geographical structure, the researcher spent 50 days in Saudi Arabia travelling a total of 1500km and 320 hours, visiting schools in order to distribute forms and make sure that the data entered by the students was accurate; all of this took a considerable period of time and was also very costly. All these difficulties may have imposed some limitations on the study.

8.5 Consequences of the epistemological approach to the research

The research was premised - as described in chapter three – on a pragmatic critical realist approach. In practice this meant a focus on the "applied" objectives of the research with a more muted acknowledgement of - (i) the various structures and contexts within which the thoughts of research participants were shaped and enunciated and (ii) the cultural and political parameters that constrained some aspects of the research. In terms of the contexts it is hardly surprising, superficially, that opinions of research participants should be shaped by the perceived and actual structures of action and normative precepts within which individuals exist and interact. Indeed, chapters four, five and six point to some of these phenomena - contexts that range from self-reported views on the nature and extent of familial support for gifted students to the details of apposite policies and provision on the part of schools and the Saudi Ministry of Education. But are there other key contextual factors that might have changed markedly the tenor and direction of the thesis had they been fore-grounded in the investigation? I suggest that three particular issues, elided pragmatically in order to develop the "applied" nature of the research, might have leant the thesis a more thorough-going sense of sociological critique and analysis had they been explored in more depth.

The first theme, particularly notable from a secular perspective, is the apparent centrality of religion in Saudi Arabia and its indivisibility from areas of public policy such as education. Chapter One provides some background in this respect, making reference for example to the requirement that the education system reflect an overarching goal to "spread Islam to every corner of the Earth" and to the non-negotiable centrality of religious study to school curricula. But scant attention is paid to how this religious-cultural context might be situated in relation to the largely "western" perspectives on giftedness, its identification and attendant educational provision that are explored in Chapter Two. The thesis undoubtedly emphasizes the Islamic tenor of educational provision in Saudi Arabia but this is taken as an empirical given rather than as a starting point for reflection on the

impact of religion and culture on the viability and appropriateness of the perspectives reviewed in the second chapter. Similarly, in a second respect, the issues of democracy and accountability in the development and application of educational provision are alluded to (Chapters One, Four, Five and Six) but not explored in great depth. In Chapter Five, for example, I report findings from when practitioners were invited to rate programmes run by the Ministry of Education for the identification of gifted students and in chapter three I consider the results of students' reflections on the "power" of teachers. Yet this issue of power in the determination of policy and practice in the field of education for gifted student is not explored much further as it would have strayed beyond an implicit *a priori* parameter for the research. As a professional educator I was being funded by the Saudi government to conduct research that might enhance existing policy and practice rather than challenge fundamental issues of policy governance within the field of education. And in a third regard, gender segregation in education (mentioned in Chapters One and Three) and some aspects of the occupational structure in Saudi Arabia (Chapter Four) are acknowledged in relation to the limits to fieldwork when a researcher is not allowed direct contact with research participants of the opposite sex. But is it the case that the experiences of gifted male and female students were "separate but equal"? Or do wider attitudes and expectations around gender and gender relations shape practices, expectations and outcomes on the part of gifted students in Saudi Arabia? A more nuanced in-depth and comparative analysis of this issue might have helped place policy and practice in relation to giftedness in more complete social and cultural context.

8.6 Limitations

The study was carried out 3 years ago; it is possible that many changes have taken place since the conclusion of this study. Any sharing of the findings and dissemination activities, therefore, has to take this into account. One limitation is the sample size and the extent to which it is representative of the population of the students throughout the vast country of Saudi Arabia. Conclusions and inferences made from the study may not be representative of the population in other districts.

The influence of the degree of affluence of the students involved and any gender related aspects of identification and provision were not explored. These need further exploration and analysis. Also, if interviews were carried out with a sample of students it would have helped to construct a more detailed picture of students' experiences as 'gifted' in the classrooms and outside; this not possible through the use of questionnaires alone. A serious limitation was that due to cultural norms the researcher, being a male, was unable to

administer questionnaires or carry out interviews with female students and practitioners. The involvement of different persons in the data collection procedures may have influenced the content of the data.

8.7 Possible future research

Reflecting on the study, the researcher is aware of the serious lack of research studies in Saudi Arabia about many aspects of gifted education. Questions about identification procedures and effectiveness of the various elements of provision could be investigated. The higher education destination of the pupils identified as gifted would be of interest.

The role of social workers in supporting gifted students would be a worthwhile topic of investigation. The nature of the training and professional development of teachers would be of fundamental importance. How gender differences influence the identification processes, students' attitudes to school work and aspirations would be of interest to both Saudi Arabian and the international community.

Other fruitful topics for research include the effectiveness of possible interventions. For example, curriculum and organisational structures, early identification and programmes addressing the emotional and social needs of gifted students.

8.8 Specific Recommendations

This final section starts with three principles on which specific recommendations for a revised gifted programme in Saudi Arabia are made:

1. All children should be provided with opportunities to demonstrate their gifts and talents. Students who may belong to less educated and poorer backgrounds may have the potential to be gifted. Gifted students exist in all racial, cultural and economic situations and it is our duty to search for submerged talent wherever it may exist.
2. We need to encourage all students' gifts and talents and set up structures for these to lead to achievement. Identification without appropriate provision is unlikely to lead to realising potential.
3. Gifted students should become active participants in constructing their learning, not just memorise transmitted knowledge.

For the next stage in the development of gifted programmes in Saudi Arabia the following steps are recommended:

- There should be a policy, designed by the government, on gifted education; principles of practice should take into account the latest international developments in theory and research. The policy should include a statement of aims, goals and desired outcomes. It should be shared with all those who are involved in educating students, at all levels. Evaluation of the effectiveness of the policy should take place regularly.
- All those who are involved in gifted education should be engaged in discussions about the nature of ability. Our own conceptions of ability and debates on the nature of ability will influence the way we both identify giftedness and make provision.
- There is a need for reviewing the curriculum, which should take into account the learning needs of the students. Strategies should include both classroom-based and externally organised enrichment. Appropriate resources should be made available, including support for students with exceptional gifts in any domain.
- It is a fundamental fact that a key aspect of an effective programme is staff development. Gifted education is highly complex and challenging; therefore, those who deliver the programmes should have the confidence and the knowledge to deliver the programmes. Teacher preparation should be made available at both pre- and in-service stages.
- The role of adults in encouraging gifted students is a well established fact, in particular, the involvement of parents is an important element within gifted programmes. Parents should be encouraged to build open communications with school and to support their children at home; they may need specific support to achieve these.
- Administrators should ensure that all those who are involved in gifted education are aware of the requirements of the policy. Documentation and information should be made available readily. Sufficient resources – both financial and professional - should be made available.

Finally, appropriate provision for gifted students has the potential to raise the expectations of teachers, parents and students themselves of what can be achieved. Essentially, gifted education is not just about considering ‘who the gifted’ are; it is about encouraging ‘gifted behaviours’ in all children.

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APPENDICES

APPENDIX 1: Summary Table of the Study Results

The results of the Students Questionnaire
Most gifted students' parents have higher education qualifications and their fathers are more educated than their mothers **and** Most parents of the gifted students work for the government**.** The families of the participating students are large, with the majority having six or more people living at home
Most of the students receive help with studies from both of the parents and greatest support extent both spiritual and material.
Most gifted students have high academic results (score between 95-100%) And Most of them aim to pass exams and get degrees. In addition the confidence of the students in their academic abilities is exceptionally high
Most students work hard to improve themselves and please their parents. The majority of them regard education as very important for their future career development
Almost half of the gifted students enjoy difficult tasks that encourage them to work hard and most of them like to be perfect in their studies and the school life is interesting for them. The highest percentage of the students replied that they regularly attend school
Almost half of the students attend classes if their friends also attend. The majority of them have a high number of friends and 82.7% of them have a positive relationship with their classmates
Most of the gifted students feel that the teachers have more power than the students and the teachers decide everything at a school. Whoever The majority of them believe that their teachers make learning interesting and they receive positive responses from their teachers
Most of the students do well at school because they like the gifted programmes that they attend but the same percentages of the participant students agree and disagree that their school provides enough academic extension or enrichment activities after school
A large number of gifted students often miss important points during class because they

think about other things and most of them make questions to help themselves focus on their reading. The majority of the students think a topic while they are reading it and prefer to take notes when they are confused in class to clarify things afterwards. The close percentages of the participant students agree (43%) and disagree(37.6%) that they find enough time to read or review their notes before an exam
42.5% of the gifted students do not try to work on their own without anyone's help, but 37.6% work more independently and solve the problem alone. The majority of the gifted students (78.5%) are interested in identifying students in their class that they could ask for help from
Majority of gifted students do not attend any of the academic or non academic extension or enrichment activities. However, The extension programmes that schools offer are enjoyable by 66.7 of the students and they find it helpful to their studies
most the students enjoy attending to parties, 87.1% of the gifted students enjoy to visit other members of the family and 74.2% of the students enjoy social life activities
Academic activities: In total, the majority of gifted students spend between 1-4 hours to study, the same amount of hours to finish their homework and also 1-4 hours to write notes and 1-4 hours weekly to take part in group discussion. Moreover, most gifted students spend 1-4 hours per week at the library. Another activity that most gifted students dedicate 1-4 hours per week for is memorising the Quran
Non-academic activities: Most of the gifted students meet their friends for 5-10 hours per week. 49.4% of the students spend 1-4 hours weekly on computer games. Half of the students spend 1-4 hours per week with a sport. Half of the students do for 1-4 hours per week going out with friends. 43.1% of the students chat on the internet for 1-4 hours a week.
79.6% of the students replied that they know that they are gifted **and** majority of them identified by their school or their teacher**.** 86% of them had taken intelligence tests. 53.2% of the students were identified less than a year before the time of the data collection
28.5% of the students do well in mathematics, 14.5 of them are good at sciences and 12.9% at studying the Quran. 10.2% of the students do well in Grammar and another 10% are good at English.

English (15.6%), Grammar and mathematics (8.6%) are the subjects that the gifted students are not doing well at. And most of them (30.6%) would like to be doctors
The results of the Practitioner Questionnaire
Most of the worker (69.2%) replied that they were aware of a formal definition of giftedness by the Ministry of Education. Also The majority of them report that their schools have a very recently established identification programme for the gifted
42.3% of the interviewees chose verbal reasoning, intelligence and creativity tests as the methods of identification in the ministry. Standardised tests were also very popular for the identification of giftedness (40.4%)
most of the participants replied that they would contact the Department of Gifted in the Education Administration to communicate about giftedness
The majority of the respondents work at schools that keep a record of their gifted students. 32.7% of the participants were not aware of the number of gifted students at their schools. 25% thought that the number was less than 2% of the school population
50% of the participants indicate that their school provides academic extension for its gifted students during school hours, but at the same time 44.2% of them replied that their school did not have any. 65% of them replied that there are no academic extension activities after school and 69.2% said that their schools do not have any non-academic, after-school activities.
The nature of these out of school activities for the gifted students is: summer schools (50%), Thursday Master Classes (7.7%), Learning Excursion programme (1.9%).
46.2% of the participants replied that they had enrichment programmes, only 28.8% reported that they have advanced group or sitting across a year group; 17.3% of the participants said that they had an advanced group or sitting across more than one year group. Many of the workers replied that there is no policy for the gifted students of their schools (88.5%).
The respondents replied that the social worker does not work with the gifted (63.5%). Most of respondents report that there are no special schools for gifted students, whereas 7.7% of the respondents mentioned one school.

Most of the participants replied that they do have special training that staff takes to teach gifted students and 73.1% of them indicate that they have not taken any type of training in the field of giftedness.
44.2% had a positive opinion about the identification programme that the ministry employs to identify gifted students and the definition of 'gifted students' that the ministry is using is perceived in various ways by the participants.
The participants' opinion about The definition of 'gifted students' and the academic activities offered by the ministry of education to the gifted students are also varied. Most of the participants think that the non-academic activities are bad and the number of people working in the particular field is very small.
The results of the Practitioner Interviews
The majority of those interviewed stated that gifted students' programmes in the Kingdom of Saudi Arabia are still new and restricted to certain areas that need a lot of development and financial support including the curriculum, staff training, programmes for gifted students and the identification method.
A large majority of those interviewed reported that gifted students' programmes and the definition of gifted students were focus on those who get high marks in their school subjects and the establishment of the identification of gifted students in the Ministry started five years ago.
Most of the interviewees replied that there are some effective methods in identifying gifted students such as high academic achievement, teachers' nomination and tests to identify students' abilities.
The main responsible body for registering gifted students is the Gifted Students Care Centre. And some interviewees argued that the percentage of gifted in the Kingdom currently is 2%, others claimed it might be 5%, while others said it can not be specified due to a lack of accurate statistics.
the number of care centres for gifted students in the Kingdom was 31 for males and 20 for females till the year 2005

The group interviewees stated that the Ministry of Education has adopted academic and nonacademic programmes for the gifted students' care and these programmes are enrichment programmes such as evening programmes, Thursday programmes and summer forums.
most interviewees indicated that there are two private schools for sponsoring the gifted in Burideah city
One of the supervisors in the Ministry confirmed that the Ministry of Education is seeking some services and programmes to be offered for the gifted during the coming years.
There were a large number of interviewees who received a course on programmes for the gifted. However, seven of them claimed that such programmes were available only for the employees and teachers at the gifted care centres. And Although more than 80 courses for employees all over the Kingdom's schools were implemented during 2005
There are many problems that gifted programmes were facing in the Kingdom's schools such as Lack of financial, numbers of specialized staff and Lack of specialized courses for the staff.

APPENDIX 2: The questionnaire that participant gifted students filled in

A Study of programmes for gifted students in the Ministry of Education of the Kingdom of Saudi Arabia and possible recommendations

Students Questionnaire

We would like to ask you to help us by answering the following questions concerning your study and performance as a secondary school student. This survey is conducted by Mr. Abdullah Alqefari, a PhD candidate of the School of Social Sciences and Law, Brunel University, UK, to understand the nature programmes of the gifted students in the Ministry of Education in Saudi Arabia. So that suggestion for further development can be make.

This is not a test, therefore, there are no right or wrong answers. Your answers to any or all questions will be used for scientific research purpose only and treated with the strictest confidence. Except the researchers, no third party has a right to read or see your answers and other personal information. We are interested in your personal opinion. Could you please give your answers sincerely as only this will guarantee the success of the survey.

If I need to speech with you are you be happy for that (Yes) (no)

Thank you very much for your help.

This questionnaire has six sections and will take 20-40 minutes to finish.

Background information:

School name: _____

Semester level: (1) (2) (3)

Sex: 1. Male 2. Female

Date of birth. …. /…. /…….

Section 1. Family Background

This section focuses on your family background information.

1. What is the level of education of your father and mother?

Father		Mother	
1	No schooling	1	No schooling
2	Junior school graduate	2	Junior school graduate
3	Middle & High school graduate	3	Middle & High school graduate
4	College graduate	4	College graduate
5	University	5	University
6	Masters	6	Masters
7	PhD	7	PhD

2. What is your mother and father's occupation?

Father		Mother	
1	Personal work	1	Personal work
2	Business man	2	business man
3	Teacher	3	Teacher
4	Government job	4	Government job
5	Engineer	5	Engineer
6	University lecturer	6	Lecturer
7	Doctor	7	Doctor
8	No job (at home)	8	No job (at home)
9	Others ……..……	9	Others ……..……

3. How many people live in your home?

1	2	3	4	5	6	7	8	9	More
1	2	3	4	5	6	7	8	9	10

4. Do you have brothers or sisters? How many

Brothers:						
1	2	3	4	5	6	7
1	2	3	4	5	More	None
Sisters:						
1	2	3	4	5	6	7
1	2	3	4	5	More	None

5. What is you birth order among your brothers and sisters?

1	2	3	4	5	6	7
1	2	3	4	5	6	More

6. Does anybody help you with your studies at home? If yes who?

a) Father	b) Mother	c) Both	e) Others ……..	d) Nobody
1	2	3	4	5

7. What are your family's expectations?

1- Support the family financially	2- Find a good job
3- Obtain an MA degree or above.	4- Others (please specify) …….

8. What kind of support if any, do you get from your parents?

1- Material	2- Spiritual	3- Both (Material & Spiritual)	4- None

Section 2. Academic Achievement

9. What is your average of your last academic result?

Under 80 %	80% to under 85%	85% to under 90%	90% to under 95%	95% to under 100%	100%
1	2	3	4	5	6

There are some statements with which you can agree or disagree. We would like you to indicate your opinion after each statement by circling a number in the grid.

For example: *School life is interesting.*

1.strongly disagree	2.disagree	3.slightly disagree	4.neither agree or disagree
5.slightly agree	6.agree	7.strongly agree	

If you agree with this statement, you can circle the number 6 in the grid and pleas read carefully.

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree	Slightly Agree	Agree	Strongly Agree
10. The aim of my study is to pass exams and get a certificate.	1	2	3	4	5	6	7
11. I am confident in my academic abilities.	1	2	3	4	5	6	7
12. I work hard in order to improve myself.	1	2	3	4	5	6	7
13. I have to work hard to please my parents.	1	2	3	4	5	6	7
14. Education is important for my future career development.	1	2	3	4	5	6	7
15. School life is interesting.	1	2	3	4	5	6	7
16. I enjoy difficult tasks which encourage me to work hard.	1	2	3	4	5	6	7
17. I like to be perfect with my studies.	1	2	3	4	5	6	7
18. Schoolwork is easy for me.	1	2	3	4	5	6	7
19. I worry when answering questions.	1	2	3	4	5	6	7
20. I will attend class if my friends attend.	1	2	3	4	5	6	7
21. I worry when making a mistake.	1	2	3	4	5	6	7

Section 3. School Influence

This section asks how much a school influences your academic achievement. There are 12 statements.

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree	Slightly Agree	Agree	Strongly Agree
22. Schools have many rules and restrictions, still I love my school.	1	2	3	4	5	6	7

23. Teachers have more power than students.	1	2	3	4	5	6	7
24. Teachers decide everything at a school.	1	2	3	4	5	6	7
25. My teachers make learning interesting.	1	2	3	4	5	6	7
26. I usually receive positive responses from my teacher.	1	2	3	4	5	6	7
27. I do well in this school because I like gifted students programme.	1	2	3	4	5	6	7
28. I would have a better mark if I changed school.	1	2	3	4	5	6	7
29. My school has enough academic extension or enrichment activities for gifted pupils after school.	1	2	3	4	5	6	7
30. My school has enough non academic extension or enrichment activities for gifted pupils after school.	1	2	3	4	5	6	7

Section 4. Learning strategies

This section asks what strategies you often apply to your learning.

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree	Slightly Agree	Agree	Strongly Agree
31. During class time I often miss important points because I'm thinking of other things.	1	2	3	4	5	6	7
32. When reading for this course, I make up questions to help focus my reading.	1	2	3	4	5	6	7
33. I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying.	1	2	3	4	5	6	7
34. If I get confused taking notes in class, I make sure I sort it out afterwards.	1	2	3	4	5	6	7
35. I attend this school regularly.	1	2	3	4	5	6	7
36. I rarely find time to review my notes or readings before an exam.	1	2	3	4	5	6	7
37. Even if I have trouble learning the material in this class, I try to do the work on my own, without help from anyone.	1	2	3	4	5	6	7

38. When I can't understand the material in this course, I ask another student in this class for help.	1	2	3	4	5	6	7
39. I attend academic extension or enrichment activities for gifted pupils after school?	1	2	3	4	5	6	7
40. I attend non academic extension activities for gifted pupils after school?	1	2	3	4	5	6	7
41. I enjoy these extension programme	1	2	3	4	5	6	7
42. I think these extension programme could help me to learn more in my study	1	2	3	4	5	6	7

Section 5. Social Issue

This section asks you about your social life.

Statement	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree	Slightly Agree	Agree	Strongly Agree
43. I have many friends.	1	2	3	4	5	6	7
44. I like my class mates.	1	2	3	4	5	6	7
45. I enjoy going to parties.	1	2	3	4	5	6	7
46. I am happy when I visit another family.	1	2	3	4	5	6	7
47. I like to attend social activity.	1	2	3	4	5	6	7
48. I try to identify students in this class whom I can ask for help if necessary.	1	2	3	4	5	6	7

Section 6. Activities

This section asks to what extent you participate in academic or non-academic activities after your class. We would like you to write down the estimated number of hours besides each activity.

49. How many hours do you usually spend in the following academic activities in a week?

	1	2	3	4	5	6	7	8	9	10	11
a) Reading	1	2	3	4	5	6	7	8	9	10	up
b) Finishing homework	1	2	3	4	5	6	7	8	9	10	up
c) Taking notes	1	2	3	4	5	6	7	8	9	10	up

d) Group discussion	1	2	3	4	5	6	7	8	9	10	up
e) Study in the library	1	2	3	4	5	6	7	8	9	10	up
f) Memorise Quran	1	2	3	4	5	6	7	8	9	10	up
g) Others (please specify) ……	1	2	3	4	5	6	7	8	9	10	up

50. How many hours do you usually spend in the following non-academic activities in a week?

a) Meeting with friends	1	2	3	4	5	6	7	8	9	10	up
b) Playing computer games	1	2	3	4	5	6	7	8	9	10	up
c) Chatting in the Internet	1	2	3	4	5	6	7	8	9	10	up
d) Going out with friends	1	2	3	4	5	6	7	8	9	10	up
e) Sports	1	2	3	4	5	6	7	8	9	10	up
f) Doing a part-time job	1	2	3	4	5	6	7	8	9	10	up
g) Others (please specify) ……	1	2	3	4	5	6	7	8	9	10	up

Section 7. Personal academic opinion

This section is concerned about your personal academic opinion. Please fill in the following blanks by reference to particular subjects with your opinion.

51. Do you think your self as gifted?	Yes	No	Don't know
	1	2	3

52. You are in gifted class, Who identified you as gifted?				
School	Teacher	Family	Yourself	Other …….
1	2	3	4	5

53. Have you got any intelligent test to identify you as gifted?		
1- Yes	2- No	3- I do net remember

54. How long have you been identified as gifted for?			
1- Under 6 months	2- 6 to 12 months	3- Up 12 to 18 months	4- Up 18 to 24 months
5- Up 2years to 3 years		6- Up 3 years to 4years	7- Up 4 years

Complete these sections:

55. I have always done well in (a subject) ……..

1Quran	2Hadith	3Tafsir	4Fiqh	5Tawheed	6Grammar	7Dictation	8Literature
9Reading	10Writing	11 Math	12Science	13 Home Economics	14Knitting sewing	15 Art	16Physical Education
17English	18History	19Geography	20Physics	21Chemistry	22biology	23Other…….	

56. I get good marks in ……..

1Quran	2Hadith	3Tafsir	4Fiqh	5Tawheed	6Grammar	7Dictation	8Literature
9Reading	10Writing	11 Math	12Science	13 Home Economics	14Knitting sewing	15 Art	16Physical Education
17English	18History	19Geography	20Physics	21Chemistry	22biology	23Other…….	

57. I learn things quickly in ……..

1Quran	2Hadith	3Tafsir	4Fiqh	5Tawheed	6Grammar	7Dictation	8Literature
9Reading	10Writing	11 Math	12Science	13 Home Economics	14Knitting sewing	15 Art	16Physical Education
17English	18History	19Geography	20Physics	21Chemistry	22biology	23Other…….	

58. I didn't do well when it comes to ……..

1Quran	2Hadith	3Tafsir	4Fiqh	5Tawheed	6Grammar	7Dictation	8Literature
9Reading	10Writing	11 Math	12Science	13 Home Economics	14Knitting sewing	15 Art	16Physical Education

17English	18History	19Geography	20Physics	21Chemistry	22biology	23Other…….

59. Of all my courses, I like …….. best.

1Quran	2Hadith	3Tafsir	4Fiqh	5Tawheed	6Grammar	7Dictation	8Literature
9Reading	10Writing	11 Math	12Science	13 Home Economics	14Knitting sewing	15 Art	16Physical Education
17English	18History	19Geography	20Physics	21Chemistry	22biology	23Other……	

60. What occupation do you want to do in the future? ……...

1	Personal work	6	University lecturer
2	Business man	7	Doctor
3	Teacher	8	No job (at home)
4	Government job	9	Others ……..……
5	Engineer		

Many thanks for taking the time to complete this questionnaire

Abdullah Alqefari

APPENDIX 3: The questionnaire that participant practitioner filled in

A Study of programmes for gifted students in the Ministry of Education of the Kingdom of Saudi Arabia and possible recommendations

Practitioner Questioner

We would like to ask you to help us by answering the following questions concerning gifted student program in the Ministry of Education. This survey is conducted by Mr. Abdullah Alqefari, a PhD students in School the Social Science and Law, Brunel University, UK, to understand the programmes of gifted students in the Education Ministry in Saudi Arabia. This is not a test, therefore, there are no right or wrong answers. Your answers to any or all questions, will be used for scientific research purpose only and treated with the strictest confidence. Except the researchers, no third party has a right to read or see your answers and other personal information. We are interested in your personal opinion. Could you please give your answers sincerely as only this will guarantee the success of the survey. Thank you very much for your help.

This questionnaire has six sections and will take 10-15 minutes to finish.

Pleas circle your choice

Background information:

Occupation: …….

Institution ……..……..

Sex: (...) Male (...) Female

2006

Section 1. Identification

1- Does the Ministry of Education have a definition for "gifted" students?	Yes	No	Don't know
	1	2	3

2- If yes, for how long has your school been identifying the gifted and talented cohort?	
Since the beginning of this academic year (2006-07)	1.
Since last academic year (from 2005-06)	2.
For the last 2 academic years (from 2004-05)	3.
For the last 3 academic years (from 2003-04)	4.
For the last 4 academic years (from 2002-03)	5.
For the last 5 academic years (from 2001-02)	6.
For more than 6 academic years (from 2000 or earlier)	7.
Don't know	8.

3- If yes in question 2, Has the identification procedure in your school changed since it was introduced?	Yes	No	Don't know
	1	2	3

4- If you answered yes, how has the identification system changed since its introduction?
…… …… …… …… ……

5- What methods do you use to identify gifted students?	
Nominations from primary schools	1
Characteristic checklist of the highly able	2
Teacher nomination	3
Peer nomination	4
Assessment results	5
Results from standardised tests such as CATs, MIDYIS, YELIS, ALIS	6
Standardised reading / spelling, etc tests	7
Verbal reasoning, intelligence, creativity tests	8
Parental nomination	9
Specialist teacher nomination	10
Self- nomination	11
Departmental nomination	12
Other nomination (please specify) …….	13
Other methods (please specify) ……..	14

6- To whom should communication about gifted children be addressed?				
Gifted Department in Education	School Administration	King Abdulziz and his	The General Administration for Gifted Students in	Other

Administration		Companions Foundation for gifted	the Minister of |Education	
1	2	3	4	5

7- Do you keep a written record of the names of gifted students?	Yes	No
	1	**2**

8- If yes, what percentage of pupils is on the record?				
Under 2%	From 2% to 4%	Up 4%to 6%	Up 6% to 8%	Up 8%
1	2	3	4	5

Section 2. Provision

9- Does the school provide academic extension for gifted pupils during school hours?	Yes	No	Don't know
	1	2	3

10- Does the school provide academic extension for gifted pupils after school?	Yes	No	Don't know
	1	2	3

11- Does the school provide non academic extension or enrichment activities for gifted pupils after school hours?	Yes	No	Don't know
	1	2	3

12- What, if any, out of school opportunities do you very able children take advantage of?	
Thursday Masterclasses (Advance learning centres, etc)	1
Children's university	2
Summer schools for gifted	3
Knowledge tribe	4
Other (please specify) ……	5

13- What, if any, in school provision do your have for gifted students?			
	1	2	3
a- Differentiation by class teachers	Yes	No	some
b- An advanced group or sitting across a year group	Yes	No	some
c- Out of hour clubs	Yes	No	some
d- An advanced group or sitting across more than one year group	Yes	No	some
e- Enrichment programmes	Yes	No	some
f- Counselling programmes	Yes	No	some
g- Acceleration programmes	Yes	No	some
h- Other (please specify) ……			

14- Does your school have any of the following?			
	1	2	3

a- A school policy for gifted students?	Yes	No	Don't know
b- Special classes for gifted students?	Yes	No	Don't know
c- Special teacher for gifted students?	Yes	No	Don't know
d- A named person, responsible for co-ordinating provision for gifted students	Yes	No	Don't know

15- If you have a named person, responsible for co-ordinating provision for gifted students, who is that person?				
social worker	Gifted teacher	Gifted worker	teacher	Other …….
1	2	3	4	5

16- Does the Social worker work with gifted students.	Yes	No	Don't know
	1	2	3

17- Are there Special schools for gifted students in Saudi Arabia	Yes	No	Don't know
	1	2	3

18- If yes how many?	……

Section 3. Training

19- Has the staff taken part in any training to teach gifted students?	Yes	No	Don't know
	1	2	3

20- have you taken part in any training in gifted field	Yes	No
	1	2

21- what is your opinion about the following education ministry serves for gifted students.	Very bad	Bad	Ok	Good	Very good	Excellent
a- Identifying Program	1	2	3	4	5	6
b- A definition for "gifted" students?	1	2	3	4	5	6
c- academic activities	1	2	3	4	5	6
d- non-academic activities	1	2	3	4	5	6
e- training in gifted field for worker	1	2	3	4	5	6
f- Number of worker	1	2	3	4	5	6
g- Number of gifted student who have the serves.	1	2	3	4	5	6

22- What training or support would be helpful to the staff for teaching gifted students?			
1- Ways of Discovering the Gifted	2- Ways of Dealing with and Caring for the Gifted	3- Ways of Developing and Cultivating giftedness	4- Promoting Aspects of Innovation

5- Definition of giftedness and the gifted	6- Area of Thinking	7- Mental Skills	8- Enrichment programmes
9- developing Abilities	10- Latest Developments in the Programmes for the gifted	11- Training Courses	12- How to Instruct Gifted Students
13- Ways of Condensing the Syllabus	14- How to Raise the Awareness of Society about giftedness		

To help us get further information on this topic, which will enable us to design effective learning programs; would you be prepared to discuss this topic in detail with a researcher?
Yes No

If yes, please give your contact details like email addresses, and mobile phone numbers

……
……
……
……
……
……
……
……..

Thank you for completing this questionnaire

Abdullah Alqefari

APPENDIX 4: The Interview that participant practitioner filled in

Background information:

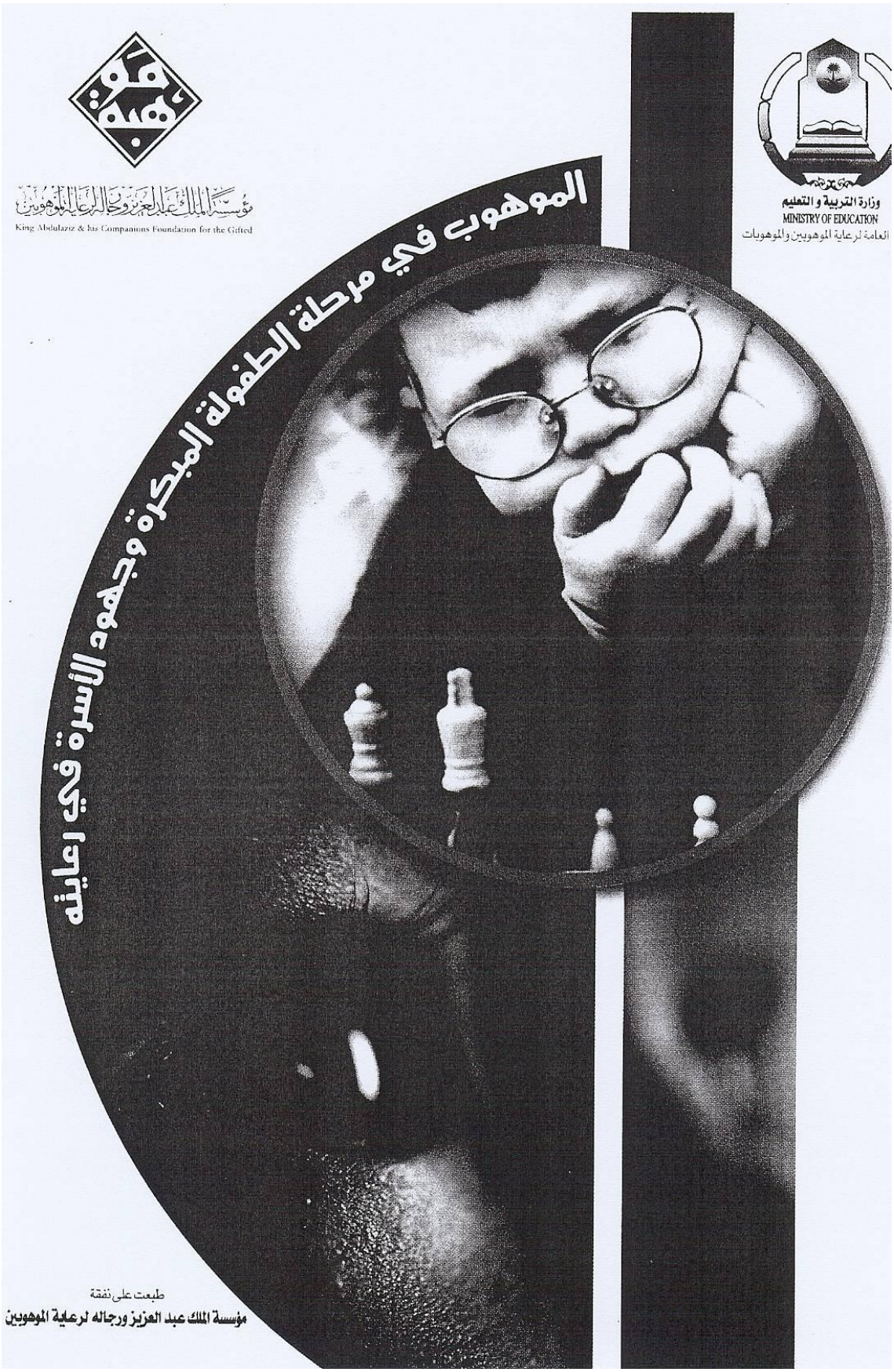
Occupation: …….

Institution ……..……..

Sex: (...) Male (...) Female

13. how long the gifted students' programmes in the Ministry of Education had been running for
14. Does the Ministry of Education have a definition for "gifted" students and how clear the definition of gifted students was?
15. If yes, for how long has your school been identifying the gifted and talented cohort and what is your opinion about it?
16. Has the identification procedure Ministry of Education changed since it was introduced?
17. What methods do you use to identify gifted students?
18. What is the percentage of gifted students on the record in Ministry of Education?
19. about Gifted Student Centres
20. Does the school provide academic extension for gifted pupils during school hours?
21. Does the school provide academic extension for gifted pupils after school?
22. Does the school provide non academic extension or enrichment activities for gifted pupils after school hours?
23. 17- Are there Special schools for gifted students in Saudi Arabia and how many
24. 19- Has the staff taken part in any training to teach gifted students?

APPENDIX 5: Some Documentation about Gifted Programme in Saudi Arabia in Arabic



وزارة التربية و التعليم
Ministry of Education

الإدارة العامة لرعاية الموهوبين والموهوبات

مؤسسة الملك عبدالعزيز ورجاله لرعاية الموهوبين
King Abdulaziz & his Companions Foundation for the Gifted

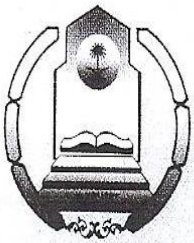
ملتقيات الموهوبين الصيفية

إعداد

د . عبدالله بن محمد الجغيمان

طبع هذا الكتاب على نفقة مؤسسة الملك عبدالعزيز ورجاله لرعاية الموهوبين

مؤسسة الملك عبد العزيز ورجاله لرعاية الموهوبين
King Abdulaziz & his Companions Foundation for the Gifted



وزارة التربية والتعليم
MINISTRY OF EDUCATION
الإدارة العامة لرعاية الموهوبين والموهوبات

برنامج رعاية الموهوبين والموهوبات في مدارس التعليم العام

طبعت على نفقة
مؤسسة الملك عبد العزيز ورجاله لرعاية الموهوبين

مؤسسة الملك عبدالعزيز ورجاله لرعاية الموهوبين

الصفات السلوكية للطلبة الموهوبين وكيفية التعرّف على الموهوب


مؤسسة الملك عبد العزيز ورجاله لرعاية الموهوبين
King Abdulaziz & his Companions Foundation for the Gifted
وزارة التربية والتعليم
MINISTRY OF EDUCATION
الإدارة العامة لرعاية الموهوبين والموهوبات
دور المرشد الطلابي في رعاية الموهوبين
طبعت على نفقة
مؤسسة الملك عبد العزيز ورجاله لرعاية الموهوبين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الإدارة العامة لرعاية الموهوبين والموهوبات
الصفات والخصائص السلوكية للطلاب الموهوبين
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مؤسسة الملك عبدالعزيز ورجاله لرعاية الموهوبين
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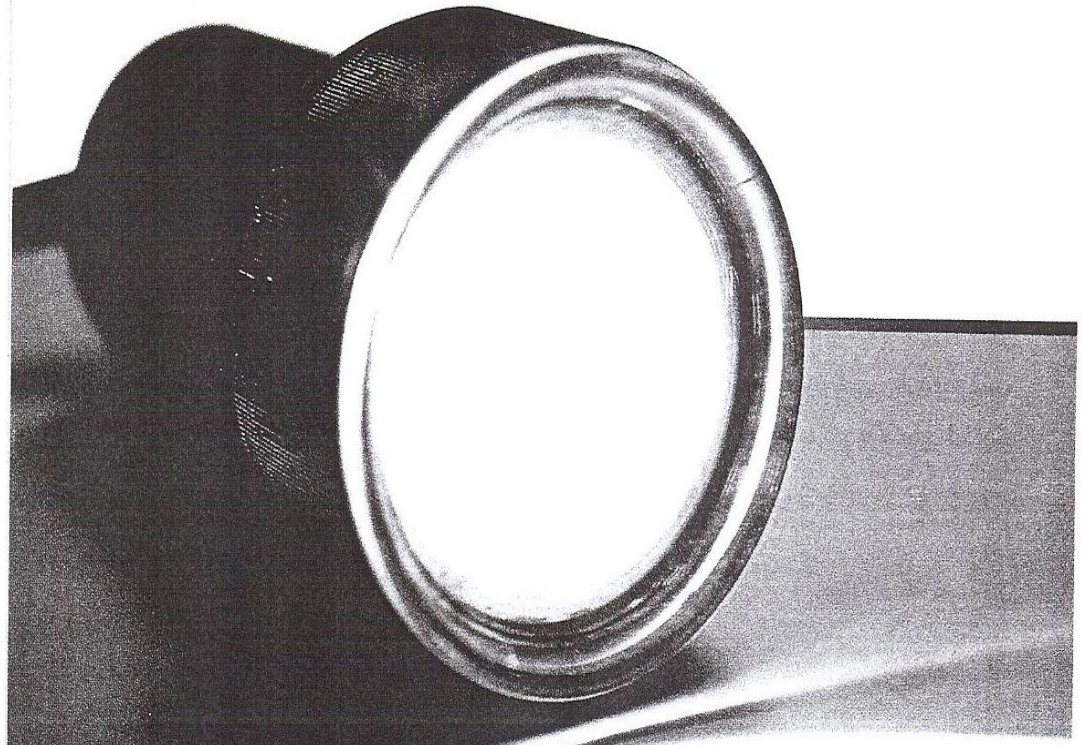

الكشف عن الموهوبين والتعرف عليهم

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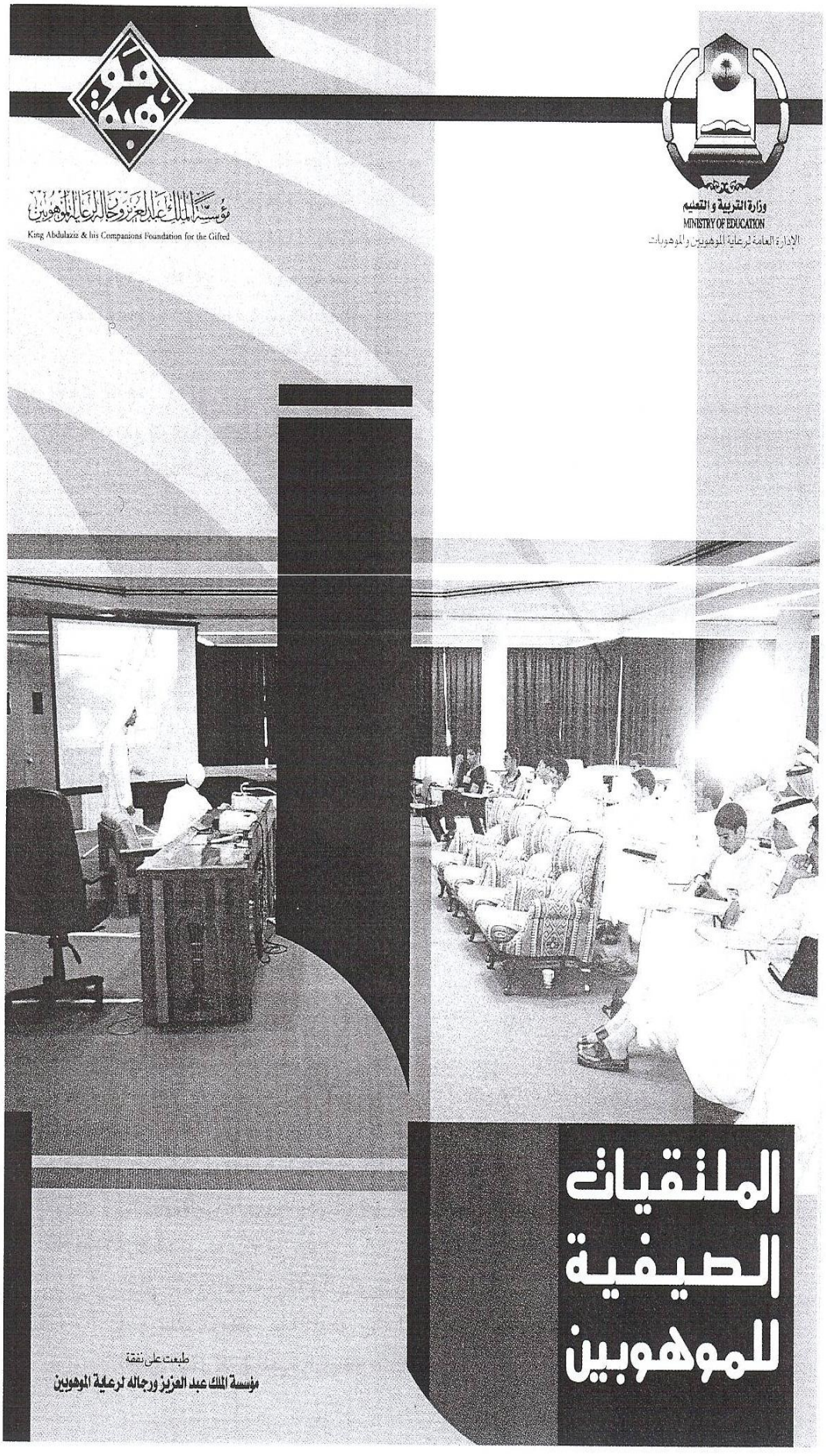
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طبعت على نفقة
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بسم الله الرحمن الرحيم

المملكة العربية السعودية

وزارة التربية والتعليم

الإدارة العامة للتربية والتعليم ببريدة

برنامج رعاية الموهوبين بمدارس التعليم العام

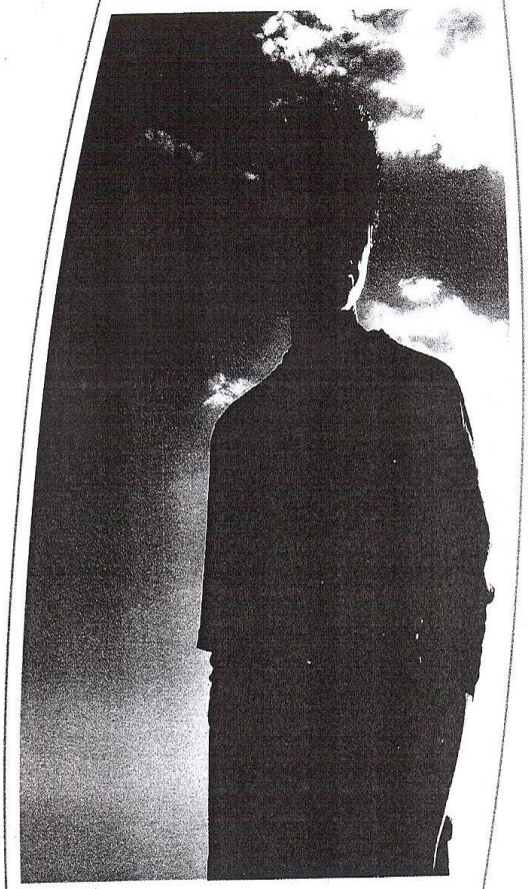
مجمع الأمير سلطان التعليمي ببريدة

١٤٢٦ / ١٤٢٧ هـ

خطة متكاملة للبرنامج الإثرائي " المياه "

إعداد و تنفيذ معلم الموهوبين

بمجمع الأمير سلطان للمتفوقين" القسم الثانوي " : عبدالله الماضي



١٤٢٦هـ
2005

بقلم الاستاذ
عبدالعزيز الفايز

مهارة العصف الذهني

بدأ النشاط في ملتقانا الصيفي بتعريف العصف الذهني وهو أسلوب يعتمد على نوع من التفكير الجماعي والمناقشة بين مجموعات صغيرة بهدف إثارة الأفكار وتنوعها وبالتالي توليد قائمة من الأفكار التي يمكن أن تؤدي إلى حل للمشكلة مدار البحث، حيث تساهم الأفكار المطروحة بين أعضاء جلسة العصف الذهني في إلهام وتوليد أفكار جديدة، ويتم استخدام مهارة العصف الذهني لإنتاج حلول واستجابات عديدة، وبالتالي تصبح الفرصة سانحة للاختيار وتقييم تلك الأفكار.

- تم إعطاء الفريق مقدمة بسيطة عن الخطوات المتبعة في مهارة العصف الذهني، ، ثم عرضت لهم مبادئ وشروط جلسة العصف الذهني على هيئة صور بغية التشويق وجذب الانتباه وهي كالآتي:

١ـ لا يجوز انتقاد الأفكار التي يشارك بها أعضاء الفريق مهما كانت بسيطة حتى يكسر حاجز الخوف والتردد لدى الفريق

٢ـ تشجيع الفريق على إعطاء أكبر عدد ممكن من الأفكار دون الالتفات لنوعيتها و الترحيب بالأفكار الغريبة وغير المنطقية

٣ـ التركيز على الكم المتولد من الأفكار لأنه كلما زادت الأفكار المطروحة زادت الاحتمالية بأن تبرز من بينها فكرة أصيلة

٤ـ الأفكار المطروحة ملك للجميع، وبإمكان أي من الفريق الجمع بين فكرتين أو أكثر أو تحسين فكرة أو تعديلها بالحذف أو الإضافة.

برنامج الكورت

برنامج الكورت لتعليم التفكير برنامج عالمي للدكتور إدوارد دي بونو وضع سنة ١٩٧٠ م
يطبق البرنامج في أكثر من ٣٠ دولة على مستوى العالم (أمريكا - بريطانيا - فنزويلا - استراليا - ماليزيا - الاردن - قطر) استفاد من البرنامج أكثر من 7 ملايين طالب . برنامج يعلم التفكير كمادة مستقلة ويحوي أدوات ومهارات في التفكير يدرب عليها الطالب ليمارسها في حياته اليومية . يتكون البرنامج من ستة أجزاء في كل جزء عشرة دروس (أدوات) وكل جزء يحمل اسماً وهدفاً يجب تحقيقه خلال دروس الجزء .

كورت١ : توسعة مجال الإدراك
كورت ٢ : التنظيم . كورت ٣ : التفاعل .
كورت٤ : الإبداع .
كورت ٥ : المعلومات والعواطف . كورت ٦ : العمل .

إن هذا البرنامج لديه تصميم متوازن، فهذا يعني أن كل جزء فيه يمكن استخدامه والاستفادة منه على حدة وذلك بعد الانتهاء من الجزء الأول من البرنامج والذي يعتبر الجزء الأساسي من البرنامج ، هذا البرنامج يمكن المتدربين من أن يكونوا مفكرين فاعلين ومتفاعلين في الوقت نفسه ، كما ينمي هذا البرنامج المهارة العملية التي تتطلبها الحياة الواقعية .

أساسيات الكورت العمل الجماعي : التدريبات . الإثراء التحفيز . التنويع . الإثارة . الإنجاز . التركيز . الضبط والانضباط . السرعة . التعزيز . الاختيار ومراعاة المراحل السنية والقدرات الفردية .

استخدام مهارة جمع المعلومات في (المخدارات) . .

(الأهداف) إحدى دروس الكورت التي استفاد منها الطلاب وقد قام الطلاب بتطبيقها على أهداف مروجي المخدرات وكانت الإجابة : اكتساب المال . انتشار المخدرات في أنحاء الدولة . ضياع الشباب . تذليل الشباب له . تهديم المجتمع . تشتت الأمن . إظهار البطولات . تكوين عصابات تحت سيطرتهم . خراب العقول . عدم استقرار الحياة في المجتمع . حرب ضد الطاقات والعقول المثقفة بين الشباب العربي والمسلم . تحقيق ما في النفس من الأهداف الاقتصادية . الانحراف بالمجتمع إلى الأسفل . خلق المشاكل الأسرية . تحقيق بعض الأهداف الجنسية . تحقيق ما في قلبه إن كان حاقدا على رجل .....

استضافة..

زيارة..

مرحلة الاستكشاف..

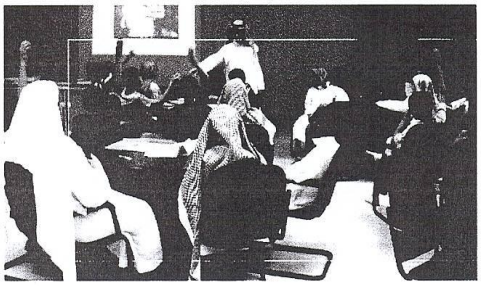
وفيها الخطوة الأولى من خطوات برنامج حل المشكلات الإحساس بالمشكلة وفي هذه الخطوة يتم التعرف على اتجاهات الطلاب حول التلوث وماذا يريدون أن يعملوا لحل هذه المشكلة . والهدف منها :

١ـ استيضاح وفهم أعمق للمشكلة .

٢ـ التعرف على مجال المشكلة .

و طرحت بعض الصور التي تبين التلوث في عدد من المجالات على الطلاب ومجموعة من الأسئلة المطروحة للنقاش مثل :

١- لماذا التلوث مهم ؟ ٢- هل التلوث أنواع ؟



مرحلة الاتقان..

وفيها الخطوة الثانية من خطوات حل المشكلات جمع المعلومات ويقوم الطلاب بجمع أكبر عدد ممكن المعلومات عن المشكلة من مصادر متعددة مثل المكتبات و الانترنت . والهدف : تعريف و تحديد أهم العوامل والمؤثرات في المشكلة

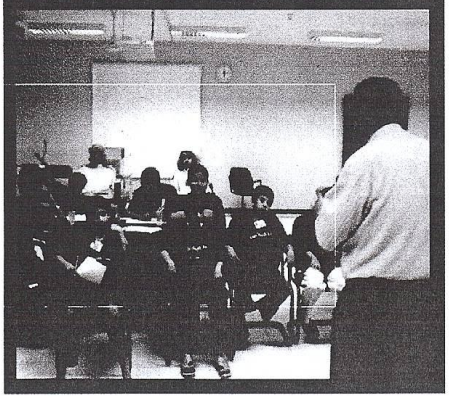
وفيها الخطوة الثالثة من خطوات حل المشكلات تحديد و صياغة المشكلة بعد أن قام الطلاب بجمع معلومات وافية عن المشكلة المطروحة (التلوث) .
نقوم بالخطوة الثالثة وهي إيجاد صياغة مناسبة للمشكلة وفق معايير محددة مثل أن تكون إيجابية و وغير محدودة بشرط . والهدف : تعريف المشكلة في جملة محددة .

وفيها الخطوة الرابعة من خطوات حل المشكلات إيجاد الحلول و الأفكار وفيها يقوم الطلاب بإيجاد أكبر عدد ممكن من الحلول و الأفكار لمشكلة التلوث باستخدام عدد من الأساليب مثل أدوات سكامبر العصف الذهني الروابط و العلاقات القسرية .

وفيها الخطوة الخامسة من خطوات حل المشكلات بناء قبول للحل وفيها يقوم الطلاب ببناء خطة لبناء قبول للحل المختار و التعرف على مصادر الدعم لهذا الحل وكيفية التغلب على مصادر الرفض .

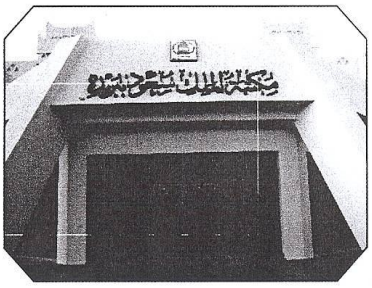
زيارة الأستاذ / حامد رشدي

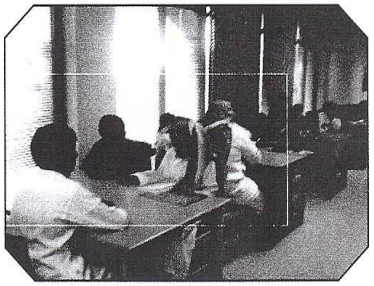
قام بزيارة المستوى الثاني الأستاذ حامد رشدي مطر مدرس صحة عامة للتحدث عن التلوث الغذائي وماله من اضرار على الصحة العامة

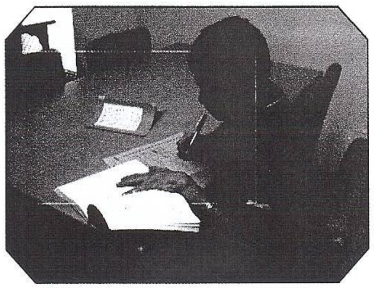


زيارة إلى مكتبة الملك سعود..

قام الطلاب اثناء هذه الزيارة بجمع معلومات عن تلوث الغذاء باستخدام عدد من المهارات المساندة مثل التلخيص . القراءة السريعة . كتابة التقارير البحث في المكتبات







إجابات تبحث عن سائل..

رسائل وايحاءات وتمتمات وكلمات وبعض الاسئلة والكثير من الإجابات هذا كل مايمكنه خلدي عن الملتقى اما تفسير هذا فيكمن بجمال الموهبة حينما تمشي على الارض وتحس بانفاسها حولك ويكمن بقيمة الابداع عندما تكون ممارسات تشاهدها بواقعك الملموس .

ان صيغة الموهبة مع براءة الحس وجودة الطرح تمثل مزيجا سحريا يصنع رقي الأمم وتقدم الحضارات

اما الرؤية المستقبلية فتمثل هاجس غير مقلق بالنظر للمؤشرات الموجودة .

واخيرا اقول ان الطموح الكبير حينما يحمله النشء الصغير وفي ظل الإمكانات المتاحة سنصل حينها الى نجاحات الامة وتفكك بذلك عقدة تاخرنا .

أ/ احمد بن سليمان الرشودي

ماذا يريدون..

ميز الله عز و جل الموهوبين ببعض الخصائص والسمات الشخصية التي اثارت انتباهنا و جعلتنا نوفر لهم رعاية خاصة و نذكر من هذه السمات على سبيل المثال :

الشخصية القيادية وحب الاستطلاع وسرعة الفهم وغيرها كثير : لكل اعتقد ان اكثر مايريده الموهوبون منا هو الاستماع لهم و محاورتهم و جعلهم يبدون ارائهم و وجهات نظرهم المختلفة ويدافعون عنها بما لديهم من ادلة و شواهد بدون خوف او تردد ولعل الخطأ الاكبر الذي قد يقع فيه بعض المربين و الآباء هو عدم فتح قنوات للحوار و النقاش مع ابنائهم واكاد اجزم ان معلمي الموهوبين يجدون ان اكثر اوقات العمل متعة هي جلسات الحوار و تبادل الآراء و الافكار و التحدي في اثبات وجهات النظر المختلفة بين الموهوبين.

كنا ... و ... صرنا!!
في البحار كنا .. لا لا
ليست النيل الصافي .. ولا الشرب العذب
انها .. بحار الاهمال .. اللامبالاة .. الاحتقار ليست مني .. ابدا
من محيطي .. من مجتمعي .. من حولي ..
في دروب الحياة .. حملت طريقي..
احس ان .. الافكار تجول في راسي..
ذكاء .. عبقرية .. قوة ادراك .. سرعه ملاحظه .. كلها نعم لا
اجد من يوصلني الى بر الامان .. شاطئ النجاة .. ابدا لست ..
هنا .. هناك .. لا احد .. لا احد
ابكي .. احيا .. اعيش .. ؤ .. واضحك .. وتمر الليله ما يضحك!!
لجات الى ربي .. خالقي .. سبحانه دعوته .. لن يخيب املي ..
املي .. ابدا .. لن يضيعني
وبحمد الله .. ظهرت الضياء .. وانسلت .. اخيرا طلائع
كانوا كالمرسان .. انقذوني بحمدالله جزاهم الله خيرا

بقلم
خالد بن عبدالله الشوزان

ربما لا أستطيع كتابة ما يستحق لهذا الملتقى حتى لو ملئت كتاباً بحقه ووفاءً له ، فلقد رأيت راية العلم عالية وأيدي العطاء تسقي براعم المستقبل بالمعرفة والخبرات فهؤلاء الشباب لهم من سيمثل وطني الغالي فيشرق بالتقدس والطيب والعالم والمكتشف ، حقيقة فيما بعد الله لهؤلاء الأساتذة الأفاضل وكذلك إجتماعي برفاقي الذي زادني ثقة بنفسي وإخواني وفي الختام أتقدم بالشكر لكل من ساهم في نجاح هذا الملتقى .

إن الدور المنوط بالوالدين والمدرسة تجاه الطالب الموهوب دور كبير جدا يحتاج إلى وعي وتفهم لحاجاته النفسية والعلمية ويحتاج إلى معرفة سماته وخصائصه فمن خلالها يتم التعامل معه بأسلوب أمثل يضمن لنا المحافظة على مستوى دافعيته والقدرة على استغلال تفوقه العقلي ، ويجدر بنا الإشارة إلى أن كثير من الأساليب التربوية التي تستخدم مع الطلاب العاديين قد لا تتناسب مع هذه الفئة بل ربما يكون لها تأثير عكسي، لذا يجب إعطاؤهم الوقت الكافي للتفكير في قضايا مختلفة وأن يتم التدريس باستخدام الوسائل التعليمية التعاونية المبتكرة التي ترفع دافعية الطالب نحو التفكير والابتكار وأن يشجع المعلم الطلاب على طرح أفكارهم بحرية وأمان كذلك تشجيعهم على إيجاد الحلول لمشكلاتهم بأنفسهم وان تُقدم لهم الدروس بطريقة إبداعية 0

بقلم مشرف الكشف / ابراهيم الزميع

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة التربية والتعليم
(٢٨٠)
الإدارة العامة لرعاية الموهوبين

وحدة الكشف

نموذج ترشيح للبرامج الإثرائية الصيفية
لطلاب وطالبات الصف الخامس الابتدائي
العام الدراسي ١٤٢٦ - ١٤٢٧هـ

أولاً : معلومات عن المدرسة			
اسم المدرسة: مجمع القيروان للمتفوقين	الإدارة التعليمية : الغربية		
رقم الهاتف: ٣٨٥١٤٦٦	الفاكس :		
صندوق البريد	المدينة	الرمز البريدي	

ثانياً: معلومات عن الطالب / الطالبة المرشح			
الاسم الرباعي			
مكان وتاريخ الميلاد	المدينة	التاريخ	١٤١٥/٩/٦
صندوق البريد	ص.ب ٨٠٦٥	الرمز البريدي	
أرقام الهاتف	منزل: ٢٨١٠٥٩٦	جوال: ٠٥٥٥١٤٥٢٩٦	أخر:

ثالثاً :المجالات التي ترى انك تتميز فيها أكثر من غيرها (يقوم الطالب/الطالبة بوضع الأرقام من ١-٣ أمام المجالات التي يتميز فيها على أن يضع الرقم (١) أمام المجال الأكثر تميزاً)

التربية الإسلامية		التربية الفنية	٣
اللغة العربية		الحاسب الآلي	
الرياضيات			
العلوم	٢		

رابعاً: موافقة ولي أمر الطالب

أوافق على مشاركة ابني/ بنتي في أحد البرامج التي ترعاها الإدارة العامة لرعاية الموهوبين .

اسم ولي الأمر : ناصر سليمان العطياب التوقيع :

المملكة العربية السعودية - الإدارة العامة للتربية والتعليم
الإدارة العامة للتربية والتعليم
تاسست
القسم الابتدائي
مجمع القيروان للمتفوقين بريدة

توقيع مدير/ مديرة المدرسة

محمد عبد العزيز العرفي

الختم

محكات اختيار الطلاب والطالبات للملتقيات الصيفية التي تنفذها

الإدارة العامة لرعاية الموهوبين لعام ١٤٢٧هـ

أولاً : التحصيل الدراسي :

يرشح الطالب/الطالبة الحاصل على نسبة ٩٢% في المرحلة الدراسية السابقة كحد أدنى مع تحديد النسبة الحاصل عليها الطالب / الطالبة
٩٨٪

ثانياً : مقياس تقييم الصفات السلوكية للطلاب الطالبات المتميزين

فيما يلي بعض الصفات السلوكية المميزة للطلاب والطالبات الموهوبين في مجالي الإبداع والدافعية نرجو

تعبئة هذا الجزء وفقاً للمقياس التالي :

الصفة	هذه الصفة لا تنطبق على المرشح	نادراً ما تلاحظ هذه الصفة على المرشح	تلاحظ هذه الصفة في معظم الأوقات	دائماً تلاحظ هذه الصفة على المرشح
الدرجة المستحقة	١	٢	٣	٤

م	الصفات الإبداعية	الدرجة المستحقة
١	محب للاستطلاع ، يسأل عن كل شيء .	٢
٢	يعرض أفكاراً وحلولاً لمشاكل أو مسائل متعددة .	٢
٣	يعبر عن رأيه بجرأة .	٢
٤	على قدر عال من الشغف لاكتشاف الغامض .	٢
٥	يتميز بسرعة البديهة وسعة الخيال .	٢
٦	يتمتع بروح الدعابة ، والطرفة والفكاهة .	٢
٧	مرهف الحس وسريع التأثر عاطفياً .	٢
٨	لديه إحساس فني (يتذوق الأشياء الجميلة) .	٢
٩	يتميز بالنقد البناء .	٢
	مجموع درجات الصفات الإبداعية	١٨

م	صفات الدافعية	الدرجة المستحقة
١	يسعى إلى إتقان تنفيذ أي عمل يرغبه وينفذه بدقة	٢
٢	ينزعج من الأعمال الروتينية	٢
٣	يحتاج الى قليل من الحث لإتمام عمله .	٣
٤	يسعى لاتمام عمله بحرص شديد .	٤
٥	يفضل العمل بمفرده .	٢
٦	يهتم بأمور الكبار التي لا يبدي من هو في سنه أية اهتمام لها .	٢
٧	يتصف بالحزم .	٢
٨	يحب تنظيم الأشياء والعيش بطريقة منظمه .	٤
٩	يفرق بين الأشياء الحسنة والسيئة	٤
	مجموع درجات صفات الدافعية	٢٧

اسم مسجل البيانات : سهام عبدالله السعدون توقيعه :

مصادقة مدير / مديرة المدرسة : محمد عبدالعزيز الهزيم التوقيع :

الختم

ثالثاً : نتائج أداء الطالب الطالبة على مقياس القدرات العقلية الخاصة (خاص بمركز رعاية

الدرجة التي حصل عليها الطالب/الطالبة
اسم الأخصائي/الأخ... الذي قام بالتطبيق : التوقيع :
اسم مدير/مديرة المركز : التوقيع :

الختم