



Teachers' Implicit Theories of Giftedness, Practices and Challenges: An Exploratory Study of Gifted Education in Cycle Two Omani Government Schools (Grades 5-9)

Submitted by

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Abstract

The overall aim of this study is to explore the reality of gifted education in Omani schools. It particularly aims to explore Omani teachers' implicit theories and beliefs pertaining to the construct of giftedness, the existing practices of gifted education and the challenges it faces at cycle two government schools (grades 5-9). The ultimate aim of this exploration is to construct a deeper understanding of the implications the findings may have for our understanding of how giftedness is perceived by Omani teachers and how this understanding influences their attitudes and practices. Findings related to the current practices and challenges may help the policy-makers in the Ministry of Education (MOE) to rethink about gifted education and how it can be enhanced.

The study adopted a multi-case study design by focusing the investigation on four female government schools and devising two methods. First, as subject groups, teachers in each school were asked to generate their closest group metaphors of a gifted learner. To dig more deeply into their metaphors and to reveal more implicit theories, the same teacher groups were interviewed. In addition, a focus group interview was held with a group of administrators from each school to discuss the existing gifted education practices taking place at the four school cases and the challenges they encountered.

Analysis of the teachers' metaphors reveals that teachers overwhelmingly hold a positive picture of gifted learners. The findings also indicate that teachers hold inclusive Implicit Theories of Giftedness (ITG) through which giftedness is not confined to superior intellectual ability but is rather a multi-dimensional construct. The study also reveals that teachers undervalue the role of pre-service education and INSET programs. The findings indicate that the existing practices at the four school cases are influenced by a number of factors including a lack of identification procedures, the school's location, the school's administration, teachers' attitudes and the surrounding community. Three main challenges facing gifted education are identified: challenges associated with students, challenges associated with teachers and challenges associated with schools. Based on these findings, the implications for teachers, policy-makers and practitioners in both the MOE and the Ministry of Higher Education (MOHE) are considered.

Dedication

O' Allah! All praise and gratitude be to You.

This work is also dedicated to the souls of my two fathers who passed away during the journey of this study.

To my father who left this world the second year of my study.

To my spiritual father and Oman's first teacher and leader who used to stress the importance of education as a basic pillar for self-growth and Oman's development,

His Majesty Sultan Qaboos bin Saeed, Sultan of Oman.

May their souls rest in peace

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Abbreviations and Acronyms

ITG	Implicit Theories of Giftedness
SENs	Special Educational Needs
MOE	Ministry of Education
MOHE	Ministry of Higher Education
BNGED	Batinah North General Education Directorate
GE	General Education
BE	Basic Education
RGEDs	Regional General Education Directorates
EFA	Education for All
TRC	The Research Council
SQU	Sultan Qaboos University
INSET	In-service Education and Training
GCCC	Gulf Cooperation Council Countries
DMGT	Differentiated Model of Giftedness and talent
MMG	Munich Model of Giftedness
STEM	Science, Technology, Engineering and Math Schools
TMI	Theory of Multiple Intelligences
CPD	Continuous Professional Development

Chapter One: Setting the Scene

Introduction

This chapter briefly maps out the context for the study and the reasons why it was undertaken. It also presents the research questions of the study and the research approach that is adopted to answer these questions. Finally, it concludes by providing an overview of the thesis.

In 2014, I was involved in an online Special Educational Needs (SENs) course that was funded by the HSBC Bank in Oman and administered by the MOE. Each session of the course focused on an aspect of special educational needs learners, their characteristics and how to deal with them. Surprisingly, it was the first time for me to know that gifted learners are considered as one category of special needs. This part of the online course was the first training experience on giftedness I had gone through in my whole entire life. Though the input we had was very brief, the course was the torch that triggered my interest in gifted education. In 2016, I was very fortunate to receive a fully-sponsored PhD scholarship on SENs from the Omani government. As I started thinking about a proposal for my PhD, the first thing came to my mind was gifted learners and gifted education. I felt I needed to pursue my studies in this area and expand my knowledge. I needed to approach this area of education more closely and see how it is viewed and dealt with in my context. As an English teacher trainer whose concern is always teachers' professional development, I thought that the best starting point for my learning and researching journey in gifted education was teachers. I wanted to find out what thoughts, beliefs and personal theories Omani teachers hold about giftedness. In addition, I was keen on exploring the current reality of gifted education in our schools and what is currently happening in this regard.

When I started reviewing local literature for my thesis, I found that very little empirical research, if any, has been conducted in the field of gifted education in Oman. The existing studies have focused on issues related to testing and rationalising identification such as the scales for rating the behavioural characteristics of superior students (SRBCSS) by Hemdan, Kazem, Pfeiffer, Alzubaidi, Abu Elwan, Ambosaidi, Al-Washahi and Al-Kharosi (2017) and the gender and grade differences on the gifted rating scales by Kazem, Alzubaidi, Hemdan and Renzulli (2014) or suggesting a strategic plan to develop gifted students programmes management in the MOE by Al-Baloushi (2016) or studying the influence of school extra-curricular activities on gifted learners by Al-Salmi (2008). No single study has yet examined Omani teachers' Implicit Theories of Giftedness (ITG) and how these theories may have influenced their educational practices towards gifted learners. My literature search only spotted one study that addressed Omani teachers and giftedness; that is Al-Dhafri's (2015) study. This was a small-scale quantitative study targeted a sample of 106 Omani teachers from different school districts. It examined teachers' efficacy beliefs in how effectively they could identify and teach gifted and talented students in their regular classes. The results revealed that teachers' efficacy was found to influence their willingness to differentiate instructions for gifted students. However, the findings did not reveal what ITG and beliefs these teachers hold about gifted learners and how these theories had originated. Besides, there is a scarcity in studies that explore the status of gifted education at government schools and the challenges facing it, so I decided to investigate this as well. The findings obtained from reviewing gifted education research in my context acted as motives behind the current study to examine in-depth Omani teachers' ITG and the current practices that exist at government schools.

1.1 Rationale for the study

As mentioned in the previous section, one of the main focuses of the present study is to examine Omani teachers' ITG. Therefore, it is important to begin this section by clarifying what is meant by the term 'Implicit theories' and how it differs from explicit theories. To start, implicit theories are essentially definitions, ideas or theories that reside in the mind of theorists, laypersons or scientists about some phenomena (Sternberg & Davidson, 1986; Sternberg & Zhang, 1995; Zhang & Sternberg, 1998; Blackwell, Trzesniewski & Dweck, 2007; García-Cepero & McCoach, 2009). A common word that can be used interchangeably with 'implicit theories' is the word 'conception'. According to Collins English Dictionary, a conception of something refers to an idea you have in your mind. Other synonyms for the word conception are idea, image, concept and notion. Therefore, for the purpose of variety, various words such as conceptions, ideas, definitions, views and notions are used interchangeably to refer to 'implicit theories' throughout this thesis. Unlike explicit theories that relate to definitions and models of a given concept, implicit theories describe people's subjective views that may include prejudices and stereotypes they are not even aware of (Baudson & Preckel, 2013).

Giftedness researchers in education (such as Sternberg & Davidson, 1986; Renzulli, 1986; Philipson & McCann, 2007) have frequently stressed that in order to provide gifted learners with the appropriate educational services, we need first to understand the concept of giftedness because this is critical to any development of programmes and practices that will enhance the provision for gifted or highly able students. While there are many well-informed explicit theories that have been proposed to understand the construct of giftedness, Lee (1999) asserted that as important as explicit theories

are, understanding people's ITG is highly important for several reasons. Firstly, finding out the ITG can help in formulating the common cultural views concerning giftedness that dominate thinking in a particular society. Therefore, analysing the ITG across cultures and ages can help us to understand developmental and cultural differences in expectations about giftedness. Secondly, people's ITG are more influential on actual life and practices as they influence decisions made about the identification and nomination process of gifted students. For instance, a school that uses intelligence and creativity tests as measurements of giftedness presupposes an implicit theory of giftedness in which these two components (intelligence and creativity) are seen as part of giftedness. In addition, a school personnel's ITG influence the instruction of gifted students as a large part of instruction is based on teachers' notions as to what makes children gifted and, thus, what such children need with regard to their instruction. Thirdly, understanding people's ITG can help in understanding the explicit theories of experts. As Zhang and Sternberg (1998, p.194) stated "*Much of why experts construct very different theories of a construct is in part because their implicit theories are so different*". Hence, exploring the concept of giftedness in the Omani context may give rise to explicit theories and help Omani gifted education scholars and policy-makers to refine and revise existing definitions associated with giftedness, if any exist. Besides, having insights into implicit as well as explicit theories may help us to build a better understanding of what giftedness might mean in our Omani context.

Lee (1999) and Laine, Kuusisto and Tirri (2016) emphasised the importance of studying teachers' ITG as the key role in nominating gifted students for gifted programmes as well as identifying and supporting these students in the typical classroom settings. Further, the National Association for Gifted Children (2014), an American association whose mission is to support those who work to enhance the

growth and development of gifted children through education, advocacy, community building and research, stressed that in order to meet the challenge of an increasingly culturally and linguistically diverse student population, general education classroom teachers are expected to be primary service providers for students. This suggests that the way teachers view giftedness can inevitably affect whether or not they see a student as gifted and ultimately their view may influence the way they deal with them.

As for the present study, because Omani teachers' ITG and gifted learners still seemed to be an untouched research area, I decided to get closer to teachers and examine their ITG. I believe that understanding Omani teachers' ITG and beliefs of giftedness is crucial because through this investigation we can find out which characteristics of gifted and talented children appear to be readily identified by Omani teachers, and also which are ignored by teachers in the teacher identification process. In addition, the study seeks to find out if Omani teachers are drawing on their ITG on any theoretical models as this may give an indication about the sources of their theories. Through understanding Omani teachers' ITG we can also understand how these theories may affect the identification and nomination procedures of gifted learners. Besides, such findings can be further utilised in teachers' professional development programs (Lee, 1999).

It is worth noting here that leading researchers in gifted education (such as Sternberg & Davidson, 1986; Renzuli, 1986; Philipson & McCann, 2007; Kaufman & Sternberg, 2008; Neihart & Toe, 2013) maintained that the definitions of giftedness are grounded in culture. Neihart and Toe (2013) emphasised the paramount role of culture and contexts in shaping beliefs and values about ability and gift development. According to the authors, culture and context come first, and then political, social, and economic

realities further shape these beliefs and values. This cultural view of giftedness, however, has resulted in a lack of consensus and field fragmentation of giftedness. This is evident in the different findings of the qualitative and quantitative studies (such as Lee, 1999; Endepohls-Ulpe & Ruf, 2005; Philipson and McCann, 2007; Laine et al, 2016; Schroth & Helfer, 2009) carried out to explore teachers' conceptions of giftedness in different contexts. For instance, Endepohls-Ulpe and Ruf (2005) conducted a study of 384 German primary school teachers and it was found that teachers perceive giftedness mainly through cognitive and motivational characteristics, whereas social behaviours and personality play a minor role. Laine et al (2016) targeted 212 elementary Finnish teachers by using open-ended questions that asked them about their conceptions of giftedness. The findings indicated that Finnish elementary teachers have internalised the idea that giftedness is more than merely high IQ; giftedness was described by cognitive, creative and motivational features of the gifted. The researchers concluded that these findings indicated that Finnish elementary teachers do consider gifted learners when they plan their teaching through implementing differentiated instruction in the classrooms. These studies from the context of Germany and Finland are examples of how the definitions, beliefs and views teacher participants hold concerning giftedness and its developmental nature vary from one culture to another. Investigating the construct of giftedness in a context like Oman, where giftedness has been a marginalised area can reveal significant data about the cultural influence on how Omani teachers view giftedness and how this cultural influence may affect their attitudes and practices towards gifted learner at schools.

At a personal level, thinking about my own personal ITG prior to conducting the study led into various wonderings and notions which, sometimes, appear to be conflicting.

These wonderings and notions help in formulating the questions of the current study and, therefore, contributed significantly in guiding the study. My general view of giftedness is that it is an extraordinary performance that a person displays in any domain either academic or non-academic. In this sense, giftedness is not confined to academic excellence; it refers to any exceptional performance a person shows in any domain. In addition, while I believe that giftedness can be inherited, I also feel that individuals can still display giftedness in domains that do not necessarily exist among their family's members. This means that giftedness is not completely an outcome of heredity, it is a complex construct that is made up of various components. I also believe that the surrounding environment and the personality of a person play a vital role in supporting and nurturing his/her giftedness. I also believe that the domains of giftedness that individuals manifest reflect their society's interest and values; what I can label as a gift depends upon how important and valuable it is to one's society. This suggests that the societal and cultural factors play a vital role in defining my own conception of giftedness. As a member of the Omani context and being an educator working under the umbrella of the MOE and previously working as a teacher in government schools, I am curious to find out to what extent such thoughts and implicit theories I hold about giftedness will be reflected throughout the findings of the current study.

To sum up, therefore, from a research perspective, investigating the construct of giftedness will hopefully be of significance for the policy-makers and practitioners of gifted education in the MOE in Oman to rethink what is meant by giftedness and who a gifted student is. The findings may inspire the MOE personnel to start a new page if they really want to enhance the field of gifted education especially with regard to the identification procedures and the provision programmes. This is because the way in

which giftedness is conceptualised in a context is presumed to have consequences on the identification procedures, programme offerings, and the ultimate success of gifted education overall. Additionally, the findings related to the existing practices of gifted education in the schools investigated and the challenges encountered will be of a great value for the policy-makers as it will inform them about the potential challenges that face the implementation of gifted education.

1.2 Potential significance of the study and contribution to knowledge

There are a number of areas where this study makes original contribution to knowledge. According to Mazzoli Smith (2016), research on giftedness and gifted education often feels like a marginalised endeavour. There is a need for a wider set of research methods that give voice to a wider range of stakeholders on issues related to giftedness. Teachers are one of the key stakeholders within the field of gifted education who should be approached empirically. Teachers' ITG have been studied relatively little because most research has addressed students' ITG (Laine et al, 2016). The ITG of teachers are important because these are the people who will have to carry out their responsibilities towards gifted learners harmoniously. In addition, teachers are the ones who will have to ensure that there is integrity between guidelines and regulations on one hand and the implementation of programme practices on the other (Brown, Renzulli, Gubbins, Siegle, Zhang & Chen, 2005). Thus, more research is needed to find out about teachers' ITG as this would enable a more nuanced understanding of the place of values and beliefs in embedding practices. Mazzoli Smith (2016) contended that such an understanding is crucial for progress, since what is needed is the kind of research impact that not only changes policy and practice in this area but also discourses and cultures around giftedness.

As the present study has targeted schoolteachers' ITG, it is the first of its kind in my context, Oman. This makes it significant and unique because to my knowledge, no research study has been conducted on school teachers' ITG in Oman. It is also the first to shed light on the existing gifted education practices and the associated encountered challenges at cycle two Omani government schools. Thus, it is hoped that this study will make a significant theoretical contribution and deeper understanding to the literature by giving insights from Omani context. In addition, I am particularly interested in this topic because, as an Omani teacher educator whose responsibility is to develop pedagogic skills in trainee teachers, I have observed discrepancies in these teachers' confidence and attitudes when they are advised to deal with gifted or students of exceptional or high abilities. Thus, locally, this study has the potential of clarifying some misunderstandings Omani teachers have internalised concerning gifted learners. Practically, spotting issues and misunderstandings in Omani teachers' conceptions may lead policymakers responsible for Omani teachers' pre-service preparation and In-Service Education and Training (INSET) to take significant steps towards qualifying and preparing teachers on the area of gifted education.

Methodologically, the study is developing metaphor analysis as one of its data collection methods. Metaphorical analysis has been increasingly used in educational research as a means to examine teachers' thinking concerning different educational issues (such as Buchanan, 2015; De Leon-Carillo, 2007; Hamilton, 2016; Mahlios & Maxson, 1998; Kasoutas & Malamitsa, 2009; Sam, 1999; Shaw & Mahlios, 2008). However, metaphor analysis is rarely utilised when investigating issues related to

gifted education research. With regard to educational research in Oman, through my search of local literature I have not come across any Omani educational research that deployed metaphors as a means of gathering data. Hence, it is hoped that my experience in using metaphors analysis will contribute to existing international literature regarding the use of metaphors as a method in examining participants' deeper thinking concerning educational topics. Moreover, it will give insights into the suitability and efficacy of using metaphorical analysis with participants in Omani context. I am confident that this new and significant study will help to promote change in the educational policy in Oman gifted education and the findings will contribute to an overhaul of the current educational system. The findings related to teacher participants' ITG can be used as an assisting source in articulating a new unified national definition of giftedness. This new definition can then be used to set up an identification system for identifying and diagnosing gifted learners at Omani schools. Further, the findings from this study can work as a reference to Omani gifted education policy-makers, researchers, regular classroom teachers and schools' administrators. To conclude, the motives for this study have been my personal ambition to add to the educational system and policy in Oman by bringing about change and introducing developmental ideas concerning gifted education. A number of aims and questions have driven this study as outlined below.

1.3 Aims of the study

As the above discussion indicates, there are gaps in the current literature concerning teachers' ITG and practices in general, and more gaps in the literature within the Omani context in particular. This study intends to fill some of these gaps by:

- 1 Capturing the metaphorical images Omani teachers have about gifted learners.
- 2- Examining Omani teachers' ITG.

3- Finding out the sources that have contributed to the construction of Omani teacher's ITG.

4- Exploring the existing gifted education practices that are being run at cycle two Omani government schools.

5- Investigating the challenges that cycle two Omani government schools are facing pertaining to gifted education.

1.4 Research questions

The following are the five main questions that guide the current study. The questions are informed by the interpretive/constructivist theoretical framework described in a later section of the following chapter:

RQ1- What metaphors do cycle two Omani teachers identify, capture and share to represent their implicit theories pertaining to gifted learners?

RQ2-What implicit theories do cycle two Omani teachers hold about giftedness?

RQ3-How have cycle two Omani teachers constructed their implicit theories pertaining to giftedness?

RQ4-What are the existing gifted education practices at cycle two Omani government schools?

RQ5-What are the challenges that are currently facing gifted education in cycle two government Omani schools?

1.5 Research approach

In order to answer the research questions, the study adopted interpretive stances to explore and understand Oman teachers' ITG and gifted learners and also to get a deeper understanding of the current reality of gifted education at cycle two Oman

government schools. This is done through adopting a multi-case study approach where four cycle two government female schools in the Batinah North Governorate were selected. The study utilised two methods to ascertain its aims, namely metaphorical analysis and focus group interviews. At the first stage, teacher participants were invited to take part in a group metaphor activity in which they were asked to work in their subject groups and agree on the closest metaphorical image to a gifted learner. This phase of data collection ended with 21 metaphorical images and the analysis helped in giving an initial picture of Omani teachers' ITG. For a deeper exploration of teachers' ITG, the second stage involved conducting 11 focus group interviews with the same teacher groups who took part in the metaphorical activity. In the third stage, four focus group interviews were carried out with the administration teams of the four school cases; one interview was held in each school. These interviews were mainly to get an in-depth insight into the existing gifted education practices being run at these schools and the associated challenges that hinder the implementation of gifted education. It is worth pointing out here that much of the data concerning practices and challenges was also obtained from the data of the focus group interviews with the teachers. Qualitative content analysis approach was followed for analysing the data of the study.

1.6 Thesis outline

This thesis is organised into eight chapters. This is the introductory Chapter (1) which gives a brief overview of the whole thesis including: the statement of the problem, the potential significance of the study, the aims and research questions of the study, the devised approach and the thesis outline.

The context Chapter (2) provides contextual background information of Oman from different aspects including geographical, demographical, social and economic aspects. Then, it moves to give a historic account of the Omani education system before and after the 1970s. Next, it examines gifted education in Oman by providing a detailed historical account of how it began. It also points to the most common gifted education practices and initiatives that are currently carried out in the MOE and in other institutions and then observations are drawn based on these practices. Finally, the chapter ends by presenting a brief description of Omani teachers' pre-service education and the INSET in general and the area of giftedness and gifted education in particular.

Chapter (3) reviews relevant literature providing a theoretical background to the study reported in this thesis. First, it starts with a brief introduction to conceptions of giftedness. Then, it presents a historical review on the development of conceptions of giftedness. It also discusses a selection of prominent models of giftedness and talent, which are judged to be particularly relevant to this study. Next, driven by the aims of this study, Chapter (3) reviews previous studies which investigated teachers' conceptions of giftedness in different contexts to explore the differences and similarities that exist among teachers in various societies and countries. Lastly, the chapter briefly explores the most common practices within the field of gifted education around the world.

Chapter (4) outlines all the decisions related to the methodology adopted for this study by providing a detailed account of the philosophical assumptions underlying the study and the study design. It also justifies the data collection methods used for this study along with the piloting stage and the kind of modifications made. It describes the

participants and the recruitment process involved. Chapter (4) further points out all the issues related to the data quality and ethical principles. Finally, it describes the data analysis method and the structured approaches implemented to analyse the collected data.

Chapter (5) presents the findings that are obtained from the data collected by the metaphorical analysis activity and the 11 focus group interviews that were held with teachers and it relates these findings to the first, the second and the third research questions. The chapter reports on three main themes, namely, teachers' metaphorical images of a gifted learner; teachers' ITG and possible sources for these ITG.

Chapter (6) is the second sub-chapter of the analysis and it reports findings related to the fourth and fifth research questions. It explores the current practices of gifted education and the challenges facing gifted education at cycle two Omani government schools (Grade 5-9). This is done through analysing the data gathered by the focus group interviews with teachers and administrators.

Chapter (7) discusses the prevalent findings presented in the preceding two analysis chapters by relating them to the aims of the study and with particular reference to the Omani context and existing literature. In light of the study's aims, the chapter is divided into four main sections. The first section sheds light on the metaphors that teachers generated to represent their theories of a gifted learner and what these metaphorical representations may indicate pertaining to the construct of giftedness. The second section discusses the findings related to Omani teachers' ITG. This section also discusses how Omani teachers' ITG are influenced by their cultural context and to what extent their ITG resemble teachers' ITG in other cultures and contexts. The third section of the chapter portrays the current practices of gifted education in the four

school cases and the observations made. The final section of the chapter discusses the contextual factors and challenges that inhibit efficient implementation of gifted education.

Chapter (8) gives a summary of the current study's findings in relation to the five-research questions. It also states the contribution of the study to the existing knowledge and the methodology used in this study. In addition, this chapter highlights the critical implications of the study's findings for teachers, policy-makers and practitioners in the MOE and the MOHE. Some limitations of the study and the suggested recommendations for future research are provided at the end of this chapter. Finally, the chapter concludes with my personal reflection on the PHD journey.

Chapter Two: The Omani Education System in Context

Introduction

This chapter provides comprehensive background information about the context where this study was carried out. It starts by providing an overview of Oman including its geographic, demographic, linguistic and administrative division features. Following this, the chapter offers a historical description of the education system in Oman and the reforms movements it has undergone. Considering that the study explores the field of gifted education in the Omani context, a detailed section focusing on a historic account of gifted education in Oman is provided. Then, the chapter moves to describe the existing practices and initiatives that are carried out by different sectors in Oman in general and in the MOE in particular. After assessing these practices, gaps are identified. Finally, since teachers are the main participants in the present study, the chapter examines teachers' pre-service education and INSET programmes in general and to gifted education in particular.

2.1 Sultanate of Oman

Oman is a developing Arabic and Muslim country located in the south-eastern part of the Arab semi-peninsula and it is one of the Arab Gulf Cooperation Council Countries (GCC) with a land area of 309,500 sq.km. As shown in the map of Oman (Figure 2.1), Oman is bordered by the United Arab Emirates and Saudi Arabia in the west, the Republic of Yemen in the south, the Hormoz Bay in the north and the Arabian and Oman Sea in the east. Oman is geographically, ethnically and demographically heterogeneous. According to the official website of the National Center for Statistics and Information (NCSI), the total population registered in December 2020 was

4,471,148 of which 2,731,456 are Omanis and 2,739,692 are expatriates. Though the past of Oman is very ancient, and it is well-known historically, it is still considered a developing country because its renaissance started in 1970 as the ex-president His Majesty Sultan Qaboos came to power. Administratively, Oman is divided into eleven governorates (muhafazah): Dofar, Wusta, Dakhilyah, Muscat (the capital city), Batinah South, Batinah North, Sharqiya North, Sharqiya South, Dhahira, Buraimi and Musandam. Each of the 11 governorates is formed of several provinces referred to as wilayats. With this administrative division, the educational services are administered and supervised by the Regional General Education Directorates (RGEDs) located in the governorates. The official religion in Oman is Islam and it greatly influences Omani lifestyle and identity. The official and national language of the country is Arabic, but many other languages are also spoken by its minority cultures and inhabitants such as Swahili, English, Urdu, Hindi and Balochi, which reflects the historical relations of Oman with local and distant countries.



Figure 2.1 Map of Oman (<http://www.operationworld.org/country/oman/owtext.html>)

Economically, Oman is heavily dependent on oil revenues in financing development in the country that is led by the five-year plan strategy. However, according to Al-

Wahaibi (2016), in the fourth 5-year plan (1991-1995), many project schemes were delayed because the government could not finance the development due to the fluctuating oil prices in the market and the country's overreliance on oil, which accounts for 75% of the national income. As a result, the country had to look for solutions and take different approaches to financing the fifth 5-year plan (1996-2000) to diversify the economy of the country and decrease its reliance on oil as the main source of income. Therefore, since then, Oman has endeavored to utilise other sectors such as mining, fishing, agriculture and tourism. In order for the country to meet its goal of economy diversity, education is considered as one of the most crucial pillars of the sustainable development and in preparing and qualifying Omanis to work in these sectors.

2.2 Education system development

2.2.1 First: Traditional education

Before 1970, education was confined to the Quranic schools and workshops schools which had spread to most villages. In these traditional schools, students were taught the Holy Quran and they learned principles of Islam and the Arabic language and numbers (Ministry of Education Portal, undated).

2.2.2 Second: Formal government and regular education

Shifting from traditional education to regular and formal education began in 1930 with the establishment of new forms of schools that were planned and supervised by the government. Most of the teachers who taught in these schools were from the neighbouring Arab countries, such as Egypt, Lebanon and Palestine. The teaching materials and textbooks were also brought from Arab countries; they included teaching the Quran, standardisation and doctrine, Arabic language, science, mathematics, health, history, geography and civic education. Despite the modest role of these

schools during this era, they played a great role in the graduation of many intellectuals, scientists and writers who have been credited with the revitalisation of the cultural and intellectual movement in the Sultanate of Oman (The MOE Portal, <https://home.moe.gov.om/pages/6/show/12>).

2.2.3 Third: Educational reforms after 1970

With the change of government in 1970 in Oman, education became a policy area of crucial political weight and the education system has been undergoing constant reforms since this time. These educational reforms are reflected in the goals of the national development programmes embedded within Oman Five-Year Development Plans, which started in 1976. These goals are driven by the education philosophy, which directs the whole process of educational reforms in Oman. The education philosophy is inspired by different resources including Islam, the thoughts of His Majesty Sultan Qaboos, the Basic Statute of the State and the cultural and historical role of Oman. In addition, the characteristics of Omani society and its needs, aspirations and challenges, the learners' characteristics, contemporary educational thoughts, international conventions and charters, strategic plans and global current issues all contribute to the process of educational reforms (The Education Council, 2012; Al-Ani, 2016).

Since His Majesty Sultan Qaboos, the ex-president, ascended the throne in 1970, he gave directives to ensure that the subsequent principles for education, the objectives and orientations for implementations and priorities reflect international goals of best practice (The Education Council, 2012; Al-Ani, 2016). In addition, the philosophy of education and the educational reforms were also driven by the international initiative 'Education for All' that is endorsed by UNESCO and UNICEF. His Majesty's

government believed in the perception that in order to establish a modern state and bring about comprehensive development of the country, education is an essential factor. Therefore, at the very beginning of Omani renaissance, the educational aims were directed to spread education and make it accessible for all to reach all parts of Oman including mountainous and rural areas. That was evident in the high numbers of students who joined schools immediately after education was made accessible to all in 1970. Al-Said (2005) pointed out that within the first academic year, the number of schools jumped to 16 and about 6941 children joined these schools with about 1136 female Omani students enrolled for the first time. The number of teachers leapt as well to 196 and 30 of them were females. Table 2.1 shows this change within the first five years of Oman first five-year plan between the year 1976 and 1980 (Ministry of Education Portal):

Table 2.1

Change in the Educational Elements within Five Years

Educational elements	1976/1977	1980/1981	Increase rate In Percentage
Schools	261	373	49.9%
Classes	1992	3618	81.6%
Students	64975	106032	63.2%
Teachers	2553	5150	101.7%

Remarkably, within five years, the education sector in Oman made great achievements in the number of schools, classes, students and teachers. Table 2.2 represents the number of schools, classes, students, teachers, administrators and technicians in government schools according to the Annual Statistics Book published

by the MOE in the year 2018/2019. A quick comparison between Table 2.1 and Table 2.2 shows the high increase represented by the doubling of the numbers:

Table 2.2

Number of Schools, Classes, Students, Teachers, Administrators and Technicians in 2018/2019

Annual statistics 2018/2019		
	Government	Private
Schools	1149	730
Classes	21828	6634
Students	603797	116483
Teachers	56589	10186
Technicians/administrators	11103	2387

2.3 Focusing shift

As mentioned before, the general aim of education at the early years of the renaissance was to abolish ignorance and enable everyone living in Oman to obtain his/her right to education. This aim was emphasised by the ex-president His Majesty Sultan Qaboos's speech delivered during the celebration of the second anniversary National Day in 1972, when he talked to his nation and urged them to learn even under the shade of trees. Consequently, the early four Five-Year Development Plans (1976-1980, 1981-1985, 1986-1990, 1991-1995) were quantitatively directed towards expanding education and making it accessible to all (Al-Kiyumi, 2016). During this period, education was referred to as General Education (GE) and it consisted of three stages. As illustrated in Figure 2.2, these were the primary stage, which involved grades 1-6, the preparatory stage, which involved grades 7-9 and the secondary stage, which involved grades 10-12. Teachers were still recruited from the

neighbouring Arab countries because Omanis were still not available to fill all of the teaching posts in the educational system. It is worth pointing out here that the education system was driven by various national, political and contextual forces and this involved the MOE's campaign to encourage girls' education as well (Al Zadjali, 2017).

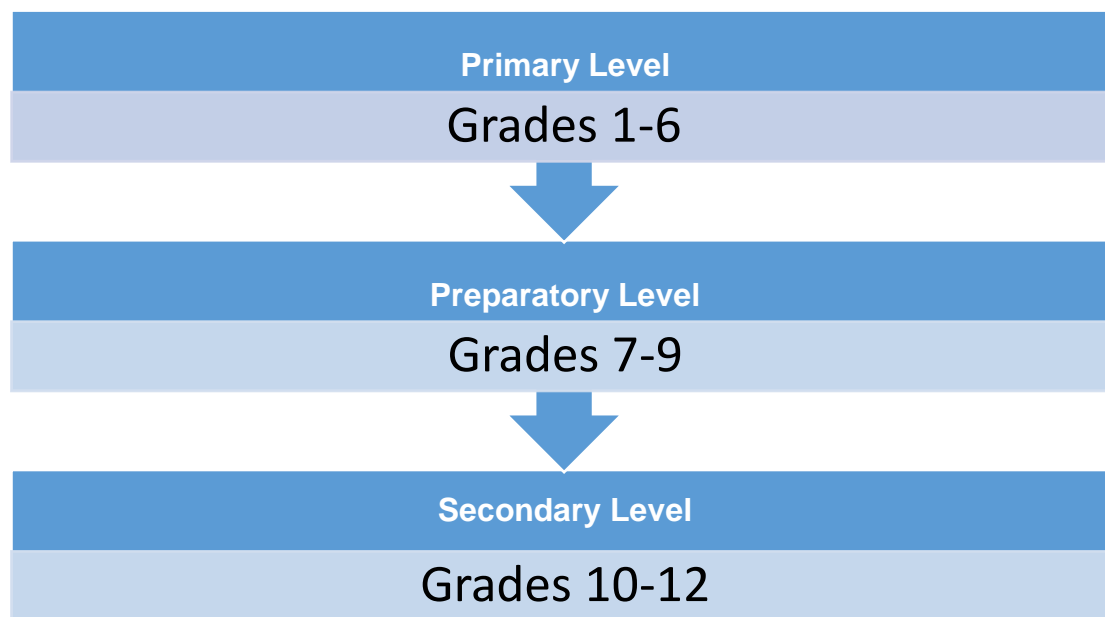


Figure 2.2 The structure of General Education system

Despite the fact that the period from 1970 to 1998 witnessed huge developments throughout Oman, particularly within the field of education, there was still a pressing need for the country to modify its plans and work towards enhancing greater quality and quantity services in terms of education. Due to the tremendous technological, cognitive, economic and political changes, the local and international visions and missions of education had to change as well. Consequently, the objectives of Oman's subsequent five Five-Year Development Plans (1996-2000, 2001-2005, 2006-2010, 2011-2015, 2016-2020) had to change. For instance, the major objective of the fifth

Five-Year Plan (1996-2000) emphasised the quality and efficiency of the general education system in a way that would make it match and compete with the international standards. It also aimed at improving the cost-effectiveness in order to create citizens with a high level of knowledge and skills that would allow them to meet the locally and internationally social and economic changes (UNESCO, 2004). These aims were translated into an introduction of the Basic Education (BE) at the beginning of the 1998/1999 academic year to replace the old GE.

2.4 Basic education system

As said previously, the call for the improved quality of state education and the creation of critically thinking citizens who would be equipped to meet the demands of 21st Century was followed by the gradual shift of the education system from the GE to the BE system in the year 1997/1998. The BE is defined as:

a 10 years long period works on the provision of-the basic educational needs of information and knowledge, skills, and the development of attitudes and values that enable learners to continue education, training orientation and their willingness and capacity and that their education aims to meet the challenges and circumstances of the present and future aspirations, in the framework of comprehensive community development. (Ministry of Education Portal, 2016)

Thus, the basic aim of BE is to develop different aspects of the learner's personality in a comprehensive and integrated framework of principles based on the Omani educational philosophy (UNESCO, 2004; UNESCO, 2011). As illustrated in Figure 2.3, the new BE system is a two-cycle system: cycle one (grades 1-4) and cycle two (grades 5-10). The two cycles are followed by a two-year post-basic education programme, which was introduced in 2007/2008 and includes grades 11 and 12. The two-year post-basic education system has gradually replaced the two years of secondary education under the GE system (Ministry of Education, 2012).

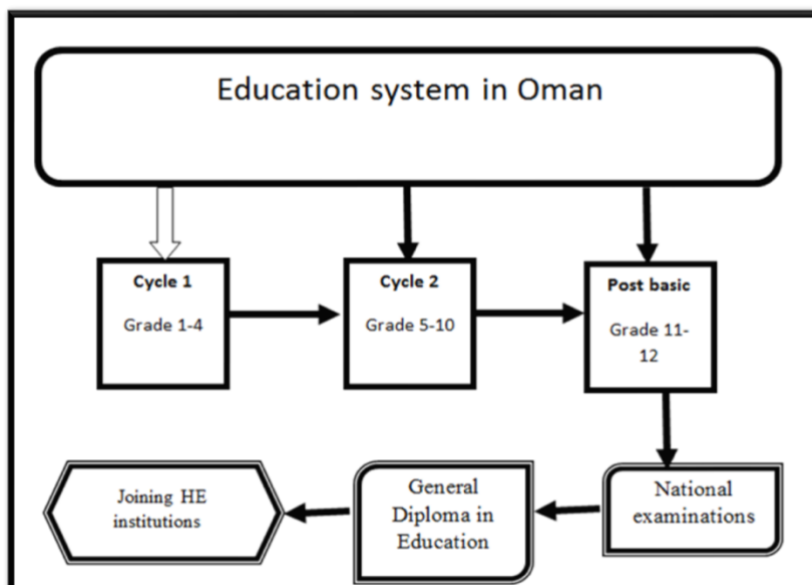


Figure 2.3 *The structure of basic and post-basic education system, reprinted from Al Riyami (2016, p60)*

Shifting to BE was accompanied by radical changes in all aspects of education, such as curriculum, training development, assessment strategies, instructional strategies, classroom environments and special education.

2.5 Further reforms (Education Council)

Due to the international and regional changes and in recognition of the importance of making sure education reflects these changes, in 2011 His Majesty Sultan Qaboos gave his directives to conduct a comprehensive evaluation of education in Oman (The Education Council, 2012). This evaluation resulted in the establishment of the Education Council in 2013, which is responsible for policy developments pertaining to education, training and human resources (Al-Ani, 2016). The Education Council represents all interest groups, private or public sectors, and the ministers of all ministries with a stake in education. In addition, it oversees the process of drafting laws relating to both general education and higher education, as well as other development projects led by other concerned parties (The Education Council, 2012;

AL-Ani, 2016). Under the Education Council, there are many actors administering and supervising education including the MOE, the MOHE, Ministry of Manpower, Ministry of Social Affairs and Ministry of Social Development (UNESCO, 2011). The MOHE is responsible for supervising the post-secondary education in universities, institutes and colleges as well as managing the local and abroad scholarships. The Ministry of Manpower is responsible for overseeing post-secondary technical and vocational colleges. Responsibility for special education is shared between the MOE and the Ministry of Social Development, with some further responsibility (for assessment) carried out by the Ministry of Health. As the main aim of the current study is to explore teachers' ITG and gifted education practices at Oman governmental schools in the MOE, the next section will briefly describe the context of the study by highlighting the main reforms that have been carried out within the MOE.

2.6 Organisational structure of the MOE

The MOE undertakes many central functions, such as designing and executing educational policies through ministerial and administrative decrees and circulars, stating educational goals, setting up the strategies, plans, projects which are deemed crucial for accomplishing the aims of education in Oman (UNESCO, 2011). The MOE operates on three vertical levels starting from the central level represented in the MOE building in the capital city, Muscat, the eleven RGEDs level and the school level. According to a Royal decree 79/2020 which determined the competences of the MOE and its organizational structure, at the central level, the MOE consists of two undersecretaries including:

- The undersecretary for Administration and Financial Affairs
- The undersecretary for Education

In addition, the MOE is responsible for ensuring that the educational policies and plans are properly implemented through its role in supervising and controlling at the regional and school levels. Overall, the RGEDs have the authority to oversee and manage the implementation of the MOE's educational policies, plans and reforms in the eleven governorates. Examples of the RGEDs' responsibilities include preparing plans and budgets, allocating teachers and supervisors, as well as monitoring teachers and administrative staff performance.

Being constrained by the scope of this study and the word limit, the rest of this chapter will attempt to shed light on two areas. First, the chapter will give a historic account of gifted education and its current status in Oman in general and in the MOE in particular. Next, because teachers are the core target of the present study, an overview of Omani teachers' pre-service preparation and INSET programmes will be provided.

2.7 Promoting special education

The UNESCO World Declaration on 'Education for All' (EFA) in 1990 broadened the concept of 'inclusion' (Weber, 2012). The EFA statement was a milestone in establishing the ideologies of inclusive education, which were reflected in the new definition of inclusion launched by the UNESCO (2005) as:

a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities and reducing exclusion with and from education. It involves changes and modification in content, approaches, structures and strategies, with a common vision which covers all children of appropriate age range and conviction that it is the responsibility of the regular system to educate children. (p.13)

Oman accepted the relevance of this broader definition of inclusive education (Ministry of Education, 2008), which carried several implications. The fundamental implication is that all children should learn together wherever that is possible, regardless of any

differences or difficulties they have. It also implies the need to provide opportunities for all young people to learn in the mainstream schools regardless of their cultural and social background or differences in abilities and capacities. Further, it implies a need to establish school culture and curricula and to develop pedagogical methods that aim to promote success for all students by catering for their diverse needs (Ministry of Education, 2008). As a result, the field of special education needs has been expanded to include even those learners with high or exceptional abilities whose needs might be neglected or not properly met. This justified the establishment of the first formal unit for gifted learners within the MOE's organisational structure under the Special Educational Programmes Department in 2009. To understand the existing situation regarding gifted education in Oman, it is important to start with a historical description of how it started to evolve.

2.8 Gifted education in Oman

Al-Lawatia (2013) claimed that the area of gifted education seems to have received early attention from the new government of Oman since 1970. Al-Lawatia's claim is based on two pieces of evidence: the establishment of a school for gifted females and the practice of grade-skipping in the early renaissance movement. The gifted females' school was established in 1981 in Muscat and students were enrolled based on their scores in grade six. AL-Lawatia (2013) argued that although this initiative did not last long, as the school was later shifted to become a regular public school, it could be seen as a great initiative towards enhancing gifted education in Oman because it used to offer unique services to students. Regarding the grade-skipping strategy, this was introduced in the educational system at the early stage of the renaissance for two reasons. First, it was used to progress the workforce development which was needed to contribute to the country's rapidly growing economy. Second, some students (males

and females) registered in schools were not completely illiterate as they had gained some knowledge from the informal schooling (Quranic, masjid or private), so grade-skipping could be seen as a strategy used to meet their needs. For a student to accelerate a class, s/he would sit for a comprehensive exam of that class and if s/he passed it, then, s/he would be moved to a higher-grade level. Like the gifted females' school, grade-skipping was also stopped after the stabilisation of the economy. Then, gifted education continued to be untouched for several years until 2008.

In response to the royal decree No 37/2008, which gave directives to rebuild the organisational structure of the MOE and identify its responsibilities, the unit of 'Gifted Learners Care' was established under the Special Education Programmes Department by a Ministerial Decree in 2013. AL-Lawatia (2013) noted that in 2009 a memo was circulated by the MOE among Omani educators asking them to suggest the best term that could be used to label exceptional or gifted students. Based on the suggestions received, the MOE concluded that the best term is 'Mujeedeen', which in Arabic language means 'Glorious'. Although the word 'mawhibah' is the one that is commonly used in most Arab states, the word 'mujeedeen' is unique to the Omani context, but it carries a greater emphasis on highly able and above average children. The discrepancy in the term and the conceptions of giftedness was discussed by AL-Lawatia's (2010) study which aimed to explore the attitudes of GCCC citizens toward the services offered to gifted students. In this article, AL-Lawatia stated that the GCCC do not only differ in the level of attention given to gifted education, but they also differ in standardising the core definition of the term 'gifted' in referring to gifted learners. Some refer to them as 'glorious', while others call them 'achievers' and in some GCCC contexts they define them as 'gifted'. These discrepancies may reflect the cultural

nature of the giftedness conception discussed in Chapter (1), which is perceived as a normal and healthy indication. Therefore, the word 'mujeedeen' started to be used and recognised in all formal documents released by the MOE. In 2013, the name of the Gifted Learners Care Unit was changed by a ministerial decree No 395/2013 into 'Mujeedeen Diagnosis and Care Unit' with the following responsibilities of (Ministry of Education Portal, undated):

- Developing identification tools for identifying gifted learners in Omani schools and monitoring this process in the RGEDs in the eleven governorates.
- Preparing special programmes for gifted learners in cooperation with other local institutions.
- Coordinating with the local media to arrange for special competitions that might foster students' giftedness.
- Arranging with the private sector to contribute in supporting gifted programmes and encouraging students' innovations.
- Following up the implementation process of gifted programmes in Omani schools.

Al Baloushi (2016) noted that the biggest challenge facing the provision of gifted learners in Oman is the lack of accurate and effective identification tools to identify gifted learners in Omani schools. Therefore, the new title of the unit (Mujeedeen Diagnosis and Care Unit) indicates that policymakers realised that establishing identification/diagnosis tools is a pre-requisite for any gifted learners' provision programmes. In this vein, it is worth mentioning that the first formal serious step towards adapting and creating a formal diagnosis/identification system was led by The Research Council (TRC) in 2014 through funding a three-year research project. This

project was conducted by a group of researchers from the Sultan Qaboos University (SQU) and the MOE and involved three phases (Hemdan, 2015; The Research Council, 2016):

Phase One (Year 2014): Selecting, adapting and piloting gifted learners' identification tools that would be appropriate to be used in Omani schools, such as non-verbal intelligence tests, creativity, mathematics abilities, emotional and behavioral tests and teachers' nomination scales (Al-Ro'aya, 2018 December).

Phase Two (2015-2016): Designing and developing enrichment activities that focus on science and mathematics specifically for cycle one (Grades 1-4) and cycle two students (Grades 5-10). In designing these activities, researchers followed the criteria of the Gifted Education Center at the College of William and Mary, a research and development center in the USA which provides services to educators, policy-makers, graduate students, researchers and parents in support of the needs of gifted and talented individuals. The developed materials would be uploaded onto a special electronic portal that would be set up during this phase of the project to allow students to access these materials easily.

Phase three (2016-2017): This phase focused on preparing and training a number of Omani teachers especially Maths, Science and Technology teachers on how to design activities for gifted learners. A part of the developed programme was piloted on a group of highly achieving students in a school in Muscat during the academic year 2017/2018. Twenty-one outstanding students were placed together in a class where they were involved in studying an adapted unit in Biology. The unit was adapted through building activities which aimed to train students in problem-solving and higher thinking skills. The findings of this piloting process revealed that students showed

positive attitudes and their creative thinking was extremely well developed (Al- Ro'aya, 2018 December 18).

2.9 Current practices in gifted education

As mentioned before, formal attention to gifted education in Oman is very recent. Hemdan (2015), the head researcher of the Research Council project discussed in Section 2.8, collated most existing activities, programmes, festivals that are run by different institutions to address Omani gifted learners (see Appendix 2.1). These activities take a variety of forms including competitions, summer programmes, forums, and scientific innovations centres and enrichment activities in the MOE's curricula. Beside the practices listed in Appendix 2.1, there are some activities administered at schools in an attempt to support gifted learners, such as innovation incubators, Cognitive Knowledge Development Programmes and school societies; a brief description of these activities is provided below.

2.9.1 Innovation incubators project

The innovation incubators project is part of a big project called 'The Educational Innovation Support Programmes' and is sponsored and administered by TRC. Broadly, this programme was introduced to develop innovative education in the public education sector and to enhance the research skills of students within the national innovation system (www.TRC.gov.om, 2016). The innovation incubators project represents the collaboration between TRC and the MOE; it started in five schools in 2013 as a piloting stage. Among the objectives of this project is nurturing leading students with intellectual capabilities so that they can contribute effectively in both the private and public sector. In addition, the programme also aims to train teachers and supervisors along with the provision of well-equipped clubs to nurture innovation and innovative skills that will empower the Omani educators and students to achieve the

necessary standards. The five innovation incubators schools have been undergoing continuous changes regarding the environment, teacher training and curriculum. This means that those students of high capabilities (mujeedeen) can be served through the activities in this programme. However, this project is still at the piloting stage in the five cycle two government schools in Muscat. Though initial feedback of the programme indicated positive results, nothing has yet been decided regarding the generalisation of the project. The delay of the generalisation could be due to the immense financial and human resources needed to introduce the project in all Omani government schools.

2.9.2 Cognitive Knowledge Development Programmes

The MOE started to run this programme in the academic year 2007/2008. The main aim of the programme is to collect scientific indicators that can be used as constructive feedback to improve the input, procedures and related educational outcomes and ultimately to enhance the quality of educational system. The programme assesses cycle two students (Grades 5-10) in three school subjects including Maths, Science and Geography through the use of three tools: oral competitions, scientific projects and written tests. Although the results of the tests may help highly able students to shine and be noticed, there are no follow-up plans directed specifically towards these learners.

2.9.3 School societies

School societies were originally planned to give all students a chance to share, practise and develop their hobbies, interests and talents. In each school, (depending on the number of students at the school) there are one or two administrators called 'School activities specialist' whose main job is to manage, follow and organise the work of these societies. A number of competitions are organised through these

societies among schools and RGEDs, which allow opportunities for students' gifts and talents to manifest. Despite the noticeable attention directed to these societies at schools, many studies (such as Al-Salmi, 2008; Al-Habsi, 2015; Al- Baloushi, 2016) reported that gifted learners rarely participate in the activities planned by the school societies. The researchers attributed gifted students' passive participation to many reasons including:

- Families' lack of awareness of the school activities' contribution to their children's development.
- The lack of basic school infrastructure required for the effective practices within these societies.
- Students undervalue these activities because their participation does not contribute to their academic achievement scores.
- The lack of coordination between the work of school societies and regular academic lessons.
- Teachers and supervisors who are supposed to be experts in the society's domain, do not have the skills and the knowledge that are needed to identify and support these learners.

2.10 Observations on current gifted education practices

Investigation of the existing situation of gifted education in Oman has revealed that the educational services directed towards gifted education in Oman are very limited. Even the early initiatives made in the early 1970s which Al-Lawatia (2013) mentioned were merely to meet the requirements of the rapid development and economic growth of the country, rather than to meet the needs of gifted learners. Looking at the activities and programmes illustrated in Appendix 2.1, a number of observations can be drawn about the current reality of gifted education in Oman in general and the existing

practices within the MOE in particular; some of these were also highlighted by Hemdan (2015) and Al-Baloushi (2016).

2.10.1 General observations on current gifted education practices in Oman

With respect to the general practices of gifted education, the following observations can be drawn:

- *Firstly*, most of these activities are short or small activities in the form of competitions that often end up with rewarding ceremonies of outstanding achievers. There are no clear aims, however, behind such competitions. Do they really aim to identify the gifted learners for the purpose of adopting and supporting them? Are they merely for promotion purposes?
- *Secondly*, most of the initiatives are in the form of scattered activities so they are not continuous or well-documented.
- *Thirdly*, though most of these programmes were introduced as pilot activities that were supposed to have been evaluated, no documentation of the results has been found or reasons why these programs have not been generalised.
- *Fourthly*, it seems that each institution perceives giftedness differently, which can be attributed to the lack of a national unified definition of giftedness.

2.10.2 General observations on current gifted education practices in the MOE

Regarding the current practice of the MOE where this study is taking place, the following observations can be made:

- The MOE has not yet developed a definition for giftedness to be used as a base for identifying and developing provision programmes for gifted students. Al-Baloushi (2016) stated that the initiatives carried out by the RGEDs in the governorates and supposed to address gifted learners' needs are not based on a clear and specific definition.

- In fact, there was an early attempt by a group of researchers in 2014 from the SQU and the MOE to test and rationalise an identification scale named as Gifted and Talented Evaluation Scale (GATES) (Hemdan et al, 2017). The results of this testing concluded by recommending this scale to be used at Omani schools for identifying gifted learners. In addition, the first phase of the TRC's research project discussed in Section 2.8 ended by the academic year 2014 and it was supposed to produce identification instruments to be used in Omani schools. However, until the moment of writing this thesis, apart from the piloting schools, there does not seem to be any implementation of any tools at other Omani government schools.
- Although the Mujeedeen Diagnosis and Care Unit was established in 2008, this unit does not have representatives in the RGEDs until now. This might explain why the goals and the roles of this unit are not recognised by the RGEDs' and schools' personnel.
- There are no documented specialised plans for programmes that specifically address gifted learners at government schools.
- No mechanisms of evaluation exist for the programmes mentioned in Appendix 2.1 and Section 2.9.
- Schools do not have reliable databases of gifted learners, which can help in identifying the numbers or the types of programmes they need.
- There is no mention of any collaboration or involvement of parents and homes in any programme listed in Appendix 2.1 and in Section 2.9.
- These activities cover a very small number of students. These are mostly either students whose abilities are recognised through their performance in the school achievement tests and competitions or students who were discovered by their

parents or teachers. However, other students who might possess high level or exceptional abilities in non-academic areas or students whose capabilities, for some reasons, are not recognised are very likely to be neglected.

2.11 Omani teachers' pre-service preparation and INSET programmes

Presently, pre-service teacher education in Oman is the responsibility of MOHE, which oversees the two official institutions accountable for rewarding educational degrees, namely the SQU and Rustaq College of Education (Al-Baloushi, 2017). As a result of the development of curriculum, teaching methods and evaluation, the MOE realised that the pre-service education that Omani teachers received may not fully equip them with the skills and knowledge needed for such ongoing development. Therefore, to help teachers deal with the inadequacies of pre-service teacher education, a need for high quality INSET of teachers appeared. The MOE adopted a cascade organisational model for INSET that is carried out at three levels (Al-Hinai, 2008). The first level of this model takes place centrally in the main training centre in Muscat for teachers and other employees in the MOE. On these courses, the MOE seeks to upgrade and develop the competencies of its staff through training them in the latest developments in education. The second level of training takes place at the governorates through enrichment and remedial programmes delivered at training centres at the RGDEs. In addition to this top-down training, (level three of the model) bottom-up training has been also adopted by encouraging schools to become training units for teachers and employees (Ministry of Education, 2005).

As part of the care that the MOE devotes for training, it established training centres in the governorates to make training services accessible for all teachers and ministry

staff. In addition to the main training center and regional ones, the Specialised Institute for Professional Training of Teachers was inaugurated in 2014 in Muscat. The main objectives of the institute are as follows (Specialised Centre for Professional Training of Teachers, undated):

- To provide teachers with 21st Century skills through in-service training.
- To achieve a positive impact on the educational process through the participation of a large proportion of teachers in training programmes.
- To ensure that research and development are priorities for the centre process.

Presently, INSET in Oman concentrates mostly on mainstream education, with the exception of a few programmes that tackle giftedness in a very minimal way. The pre-service teachers' preparation institutions, such as the SQU, started to offer a diploma's degree in special education in 2011 (AL Ani, 2016). However, the emphasis is mostly on the area of learning disabilities and, it does not address the area of giftedness. Therefore, teachers receive modest if any education specifically related to the needs of gifted learners. Not surprisingly then to find that most teachers make few curricular modifications, adapt assignments and ask higher level questions to meet the needs of these students. There is a general consensus that only when teachers are adequately prepared in knowledge and skills in working with gifted learners in the regular classroom and beyond, the implementation of gifted education in schools will be successful (Gross, 1989; Cashion & Sullenger, 1996; Sarouphim, 2010; Siegel, Moore, Mann & Wilson, 2010; Alamer, 2014; Al-Makhalid, 2012). Siegel et al (2010) pointed out that teachers with more training are more likely to recognise and appreciate different ways students exhibit their giftedness. Gross (1989) emphasised that unless teachers are given specific training in how to identify a gifted child, they are more likely

to misidentify a cooperative child who seeks the teachers' approval for one of high intelligence. Moreover, Sarouphim (2010) maintained that unless teachers are aware of the characteristics of gifted learners, they might feel threatened by a learner who seems to know more than they do about a particular subject-matter. Thus, if the MOE really wants to take a serious step towards enhancing gifted education, Omani in-service teachers and pre-service teacher trainees should be educated and trained comprehensively. At least, they need to be informed about the fundamentals of giftedness, the methods used for identifying gifted students, and the strategies needed for developing curricula for gifted learners.

2.12 Summary of the chapter

This chapter provided contextual background information of Oman from different aspects including geographical, demographical, social and economic. Then, it gave a historic account of the Omani education system through highlighting developments within the education system before and after 1970s and up to the current date. This involved describing recent changes in the education system, specifically the introduction of the BE system in 1998/1999. Then, the chapter moved on to talk about gifted education in Oman through providing a detailed historical account of how it started, and it shed light on the most common practices that are carried out in different sectors to support and serve gifted individuals. A specific part was assigned to describe some initiatives that are conducted within the MOE in this regard. Based on the practices and the findings of other Omani studies, observations were made on the current practices. The chapter ended by presenting a brief description of Omani teachers' pre-service education and INSET in general and of the area of gifted education in particular. The following chapter provides a review of the relevant literature pertaining to the concept of giftedness and gifted education practices which

inform the present study.

Chapter Three: Literature Review

Introduction

As I started my research, I realised that gifted education is an extensive field of educational research and there is extensive literature written on this subject. However, this chapter was guided, presented and organised around the research questions the current study is investigating. Recognising the relative youth and brevity of the field of gifted education in Oman, I chose to contextualise it within the broader literature related to giftedness construct and gifted education practices.

This study specifically explores teachers' ITG and the existing gifted education practices and the associated challenges encountering the implementation of gifted education in government schools in the context of Oman. Therefore, the chapter starts with a brief introduction to conceptions of giftedness and highlights the difficulty in finding a single coherent proposition of giftedness. Then, a historical review on the development of conceptions of giftedness is presented. The chapter then examines a selection of prominent models of giftedness and talent, which are judged to be particularly relevant to this study. Driven by the aims of this study, it is important to review previous studies which investigated teachers' conceptions of giftedness and talent in different contexts. This allows me to explore the differences and similarities of conceptions of giftedness and talent that exist among teachers in various societies and countries. Then, the chapter briefly examines the most common practices within

the field of gifted education. Given that differentiating regular classroom instruction is a practice that Omani teachers are formally encouraged to do, differentiation is discussed in-depth focusing on its strengths and challenges.

3.1 Complexity of giftedness conception

Most of the conceptions of giftedness suggested in the early years of the twentieth century seem to be simplistic and unidimensional. This is reflected through the dominant use of IQ tests like the Stanford-Binet test which Terman employed in 1922 in his longitudinal studies. Thus, it is not surprising to know that for decades past, researchers and psychologists tended to equate giftedness with high IQ and, therefore, giftedness was perceived as an inherited, stable and assessed construct (Reis & Renzulli, 2010). However, recent models have been expanded to include a multidimensional construct of giftedness that includes a variety of traits, skills and abilities which are displayed in various ways (Heller, 2005, 2013; Heller, Perleth, & Lim, 2005; Reis & Renzulli, 2010). This development in the conceptions of giftedness is reflected in the psychological literature through various models and theories that have been proposed. In the two editions of Sternberg's and Davidson's (1986, 2005) book '*Conceptions of Giftedness*', which provided an up-to-date and diverse collection of models of giftedness, most contributors perceived giftedness as an extended construct beyond IQ.

Although there are many models that have tried to provide insights into the nature of giftedness, psychologists and educators continue to struggle with how to conceptualise giftedness (Mayer, 2005). Reis and Renzulli (2010) noted that the problem in the science of understanding human gifts is that there are no certainties. The authors pointed to the complexity of deciding on a certain conception of giftedness

and they attributed that to the overlapping conceptions proposed by various models. In this vein, Sternberg and Zhang (1995) claimed that the lack of certainty might be due to the fact that explicit models and theories of giftedness were originally the theorists' implicit theories which vary across culture and time.

3.2 Historical development of giftedness

Across centuries and cultures, exceptional performances and performers have attracted the attention of scholars, practitioners, and the general public (Cashion & Sullenger, 1996; Hunsaker, 1995; Renzulli, 2005). Hunsaker's (1995) review study, which investigated religious and educational practices of ancient civilisations, such as West African countries, Egypt and China, discovered ambivalent cultural attitudes towards people who display exceptional abilities in any domain. For example, in Mali culture, a heroic person is one who inherited power (*daluli*), but this power should always be surrounded in secrecy, otherwise it would be considered shameful because superstitiously it was thought to release dangerous spiritual forces called '*nyumu*' (Bird & Kendall, 1987, as cited in Hunsaker, 1995).

Similar attitudes continue to prevail even in modern cultures. In the late twenties of the last century in the US, the practice of supporting gifted learners was not widely employed due to the prevailing attitude which led to a fear of the creation of an intellectually elite group through giving special attention to the gifted (Barbe & Renzulli, 1975). Despite these ambivalent attitudes, Renzulli (2005) noted that down through the ages almost every culture has had a special fascination for individuals who have contributed notably to the respective areas of their interest. For example, BuBio (1970, as cited in Renzulli, 2005, p.246) noted that as early as 2200 B.C, the Chinese had a detailed system of competitive examinations which allowed them to choose

outstanding people for government positions. Whatever the domain, extraordinary levels of achievements have always intrigued scholars, practitioners and the general public, sometimes as a model to emulate, sometimes as an area of study and sometimes as curiosity or a source of fear (Cashion & Sullenger, 1996). The result of this fascination has given rise to an area of study in psychology and education called 'gifted education' which, in a general sense focuses on two major questions: '*What makes giftedness?*' and '*How can we develop giftedness in young people and adults?*' (Renzulli, 2005, p.246). Overall, Renzulli's two questions are the focus of understanding how giftedness can be conceptualised. Gallagher (1994) noted that the answer to these two questions can perhaps be traced back as far as the history of humankind itself. However, the specific study of giftedness has begun in relatively modern times though real attempts to support these abilities through education were developed later. Before looking at models and theories of the conceptions of giftedness, it is important to shed light on the historical work of three pioneering theorists whose work significantly influenced the development of these models.

3.2.1 Francis Galton (1822-1911)

The scientific study of giftedness started at the time of Darwin and Mendel, whose work inspired Francis Galton (Darwin's cousin) to investigate differences among people through using a number of measures (Tannenbaum, 1996). Galton (1869, p.18) presented his definition of prominent individuals as those who have gifted ability (or abilities) that set them in "*a position that is attained by only 250 persons in each millions of men.*" In his book '*Hereditary Genius*', Galton assumed a biological and genetic etiology of giftedness and he presented his conception of genius as "*an ability that was exceptionally high and at the same time inborn*" (Galton, 1892, as cited in Kaufman & Sternberg, 2008, p.72). To support his proposition, Galton analysed

extensive family lineages of British men who were judged to have displayed eminence in different domains, such as science, art, politics, literature and music. From this investigation, Galton reported that genius runs in families, so it must be genetically inherited in much the same way as physical appearance (Kaufman & Sternberg, 2008; Robinson & Clinkenbeard, 2008). Galton's theory was criticised for being ostensibly subjective as it relied heavily on indices such as enduring reputation (Robinson & Clinkenbeard, 2008). Terman (1922) argued that although Galton's study marked a tremendous advance, it was limited by the nature of the biographical material upon which it was based. The geniuses whom Galton studied, represented a selected type, particularly individuals who belonged to a higher class of social hierarchy. In addition, Terman (1922) criticised the biographical data that was assembled as incomplete and unreliable. He argued that only an extremely limited number of facts can be gathered for as many as 75 per cent of any objectively selected group. For example, information about the selected individuals' early life and training was very likely to be insufficient and untrustworthy. Further, based on his examination of more than 1000 individuals, Galton also suggested that eminent individuals were not only endowed with natural ability (or abilities), but they were also born with special characteristics. This suggested that for an individual to be labelled as gifted, s/he should display inheritable characteristics that are highly acknowledged in a society. In this instance, giftedness was seen as a non-developmental concept which involves a fixed set of characteristics. If this is the case, then gifts would flourish naturally with very little environmental influence; an assumption that is strongly refuted by most modern models of giftedness. Nevertheless, Galton's interest in the mental testing and biological research into genius set the stage for the twentieth century of the scientific studies of giftedness (Cashion & Sullenger, 1996; Kaufman & Sternberg, 2008).

3.2.2 Lewis Terman (1877-1956)

For a very long period of time, a concept that was extremely persistent in America amongst educators was that the gifted child was typically the pupil who scores very high in intelligence tests (Barbe & Renzulli, 1975). This practice was traceable to Lewis Terman's and his associates' longitudinal genetic studies; one of the most famous longitudinal studies in the field of Psychology known as 'Genetic Studies of Genius'. Lewis Terman was the principal investigator of these studies and was inspired by Galton's theory of genius. In 1910, Terman became an academic at Stanford University and the first thing he undertook was a tentative revision of the Binet's scale: the most famous series of tests developed by French psychologists Binet and Simon for the diagnosis of the grade of intelligence of children. The standardisation of the scale was conducted on 1000 children whose IQ was between 60 to 145 and a new version of the Binet scale was published in 1916 and labeled as the Stanford-Binet test. In addition, Terman created a classification scheme which is sometimes still used today to classify students in schools (Kaufman & Sternberg, 2008). According to the Stanford-Binet scheme, a student with an IQ score above 135 can be described as moderately gifted, a student with an IQ above 150 is described as exceptionally gifted and above 180 as severely and/or profoundly gifted.

It is worth pointing out that Terman's earlier interest was inspired by his interest in understanding the contrast between the intellectual performance of the dullest and the brightest of a given age. As he stated, his dream became true in 1921 when he obtained a grant from the Commonwealth Fund of New York City for the purpose of identifying 1000 subjects whose IQ measured 140 or above. The main purpose of the

project was to find what traits characterise children with high IQ and then to follow them for years to see what kind of adults they become. With the help of four field assistants, Terman asked teachers in California school districts to nominate three children in their current classroom: the brightest, second brightest and third brightest, in addition to the youngest child in the class. The intelligence of the nominated children was tested by using the National Intelligence Test and those who tested in the top 5 per cent of their ages were then given the Stanford-Binet test (Terman, 1922). Moreover, a set of tests were devised including physical measurements, medical examinations, achievement test, character and interest tests, in addition to traits rating and other information obtained from parents and teachers.

An interesting conclusion of Terman's longitudinal study was that children with an IQ of 140 or higher seem to be healthier, better-adjusted and academically higher achievers in school subjects when compared with unselected children (Terman, 1922-1954). In this instance, Terman's findings contradicted the earlier prevailing beliefs which had said that giftedness and mental illnesses are inevitably allied (Robinson & Clinkenbeard, 2008). With respect to the field studies on the subjects over the following thirty years, the results showed that the great majority were still well-adjusted socially compared to the general population. With regard to academic achievement, the typical child in Terman's group had mastered the school subjects to a point about two grades beyond the one in which he was enrolled. Moreover, the child's ability in school subjects was general; a result that made Terman refute the traditional belief that gifted children are usually one-sided. Terman's continued investigation of the subjects as adults led him to conclude that *"...the genius who achieves the highest eminence is one whom intelligence tests would have been*

identified as gifted in childhood." (Barbe & Renzulli, 1975, p.40). About 90 per cent of the subjects joined college and 70 per cent were able to graduate. Moreover, 30 per cent of those graduating were awarded honors and about two thirds remained for graduate work.

To sum up, Terman's longitudinal studies were among the first extensive studies on giftedness, yet their results have not been fully accepted by many scholars today. For example, Cross and Coleman, (2005) asserted that gifted children are like other individuals and are not immune to psychological disorders and they argued that generally there is no difference between a gifted and a non-gifted individual in terms of suicidal behaviors that they might exhibit. The two authors' argument is based on a psychological autopsy of a gifted individual of 21-year-old who committed suicide. Another issue with Terman's assumptions was his high reliance on intelligence tests to predict the attainment that was considered to be the work of the genius. This issue motivated Paul Witty to take the field of gifted education further as we shall see below.

3.2.3 Paul Witty (1898-1976)

In addition to his interest in gifted education, Paul Witty was also engaged in researching reading ability for children and adults. One of Witty's great achievements was his study of 100 gifted children which partially replicated Terman's longitudinal study (Robinson & Clinkenbeard, 2008). Like Terman, Witty acknowledged the value of intelligence test ratings in selecting pupils of high academic promise, yet he emphasised that for the identification of verbally gifted pupils such ratings need to be supplemented by other data. As reported by Barbe and Renzulli (1975), Witty gathered a sample of 100 children whose IQ was measured at 140 and above from the cities of Kansas Lawrence, Kansas, and surrounding towns. This sample was matched with a

sample of children ranging in IQ from 90 to 110. Witty (1930, as cited in Robinson & Clinkenbeard, 2008) noted that this sample represented a control group of typical children. He collected aptitude and achievement data, school data from records and from teachers as well as physical measurements. In addition, Witty was interested in non-intellective variables such as play interests, home information and social and moral traits which were reported by the parents. In this respect, it might be important to note that Witty expressed dissatisfaction over the tools to assess social and moral traits since they relied heavily on measures of school honesty. He also wanted to study specialised aptitudes, but he was not happy about the instruments available, so he had to rely on reports of excellence in school subjects from parents and teachers.

Perhaps, the most interesting finding of Witty's early studies of the characteristics of gifted learners was their rapid learning and educational promise (Barbe & Renzulli, 1975). Approximately, half of the participants started to read before entering school, about 38 per cent learned to read before they reached age five but even some at age three and four. With regard to their rapid learning, Witty (1963) noted that they usually finished their assignments in less than half the time allotted to them. By the time they reached the fifth and sixth grades, they displayed knowledge and skills on tests which equaled the norms of pupils three or four years above them. However, Witty noticed that as the pupils grew older, their attainment started to grow less commensurate with their early promise. This decline in the pupils' attainment was attributed to the unsuitability of the typical curriculum to provide pupils with the sufficient challenges that could enhance effective and continuous learning. As a response, Witty (1971) suggested that acceleration and enrichment provisions need to be employed. In relation to this, Barbe and Renzulli (1975) stated that despite Witty's

recommendations, few efforts were made to enrich opportunities for the gifted during the period 1925-1950. This could be due to a belief held by many administrators at that time which said that gifted pupils could take care of themselves.

Nonetheless, Barbe and Renzulli (1975) stated that the next decade witnessed a remarkable interest in providing special opportunities and this concurred with the publication of Terman and Oden's article entitled '*The gifted child grows up*' and Witty's article entitled '*The gifted child*'. This interest was evident in the special classes, partial segregation and acceleration which were frequently organised in elementary and secondary schools for gifted pupils. In addition, notable provision of scholarships and awards served as incentives for gifted students in high schools. During the period of increased interest in the education of the gifted, it became evident that IQ tests could not be used as the only tool to successfully identify pupils with outstanding ability and promise. Therefore, Witty (1963) recommended that it would be desirable to consider a gifted child as "*any child whose performance in a potentially valuable line of human activity is consistently or repeatedly remarkable*" (p.419). Robinson and Clinkenbeard (2008) pointed out that this new position on giftedness was a balanced one because Witty attempted to take a moderate view of the historical debate of nature and nurture. Robinson and Clinkenbeard (2008, p. 18) quoted Witty's position from a published manuscript on his study of 100 gifted children, in which he asserted that "*there must be, in addition to ability, the desire to achieve and a favorable environment. High IQ does not necessarily mean high creative productivity*".

In the above quotation, Witty (1963) argued that the definition of giftedness cannot be confined to high IQ. Witty expanded his position pertaining to giftedness through

offering a balanced position between nature and nurture. This means he did not equate inborn high IQ (nature) to giftedness, but he emphasised that giftedness is a construct that is created and developed with the contribution of other factors including personal desire and environmental factors (nurture). Another important point in Witty's quotation is that he strongly related the concept of giftedness to creativity to the extent that he used 'creative productivity' as an interchangeable term to the word giftedness. Instead of saying high IQ does not necessarily mean giftedness, he said high IQ does not necessarily mean high creative productivity. This may indicate that Witty considered giftedness and creativity as the same thing.

In fact, most of Witty's ideas about the concept of giftedness, such as personal desire, environmental factors, creativity and not equating high IQ to giftedness, seem to be reflected in most models of giftedness which will be discussed in the following section.

3.3 Prominent models of giftedness

From the above discussion, it is evident that there is no consensus on a unifying underlying model or theory for this field of study. However, working from the main purpose of this study to explore Omani teachers' ITG and understand how teachers' theories relate to popular models and theories in the literature of gifted education, I have chosen to discuss five models which I believe are most appropriate to achieve this purpose. Table 3.1 provides a summary of the five models:

Table 3.1

Summary of Giftedness Models

Theorist	Model	Main Points
Renzulli (1978, 2005)	Three-Rings Conception	<ul style="list-style-type: none"> -Giftedness consists of an interaction of three clusters: being above average general abilities, high levels of task commitment, and high levels of creativity. - It correlates general ability and specific ability. -Make a distinction between school-house and creative-productive giftedness.
Gagné (1985, 2010)	The Differentiated Model of Gifted and Talented	<ul style="list-style-type: none"> -It defines talent development as the transformation of outstanding natural abilities (called gifts) into outstanding knowledge and skills (called talents). -Two types of catalysts, intrapersonal and environmental, actively moderate the talent development process.
Perleth and Heller (1994)	The Munich Conception Model	<ul style="list-style-type: none"> -Giftedness consists of seven ability factor groups (predictors), and various performance domains (criterion variables), as well as personality and social environmental factors (moderators) that serve as moderators for transition of

		individual potential into excellent performances in various domains.
Sternberg and Zhang (1995)	The Pentagonal Implicit Theories Model	- For a person to be judged as gifted, s/he needs to meet five criteria: excellence, rarity, value, demonstrability and productivity.
Piirto (1995)	The Pyramidal Conception Model	- For a child to realise a talent potential, s/he must have four internal components: personality attributes, a minimum general ability, a thorn and a specific talent in a domain. - These four components of talent development are influenced by environmental (suns) and genetic factors. - A high IQ is important in realising science, mathematics, verbal and academic talents, but it is not necessary for other types of talent such as performing, mechanical and spiritual talents.

The selection of the above models is based on the potential contribution of each model to the theoretical framework of the current study. To explain, a five-day workshop was conducted recently by the MOE in an attempt to build up a strategic plan for enhancing gifted education in Oman. A newspaper report reported that a major result of this workshop was a national conception of giftedness to be used as a starting point for effective gifted education practices in different institutions that are accountable for providing education in Oman (Al Jahwary, 2016, November 07). Although this conception has not yet been officially approved and announced, my personal communications with the MOE's personnel and analysis of the newspaper report indicated that the proposed conception is largely inspired by Renzulli's three ring conception model. In fact, this is not surprising because this model has been very popular and widely implemented in various countries (Gallagher, 1994; Olthouse, 2014). Hence, including this model in the discussion below is essential to obtain a full

understanding of it. With regard to the model of pentagonal implicit theory of giftedness, a large part of this study aims to explore the Omani teachers' ITG; therefore, this theory with its five criteria, can contribute significantly to the current study's theoretical framework. Furthermore, and most importantly, a major aspect of teachers' ITG is their perceptions of giftedness development or manifestation. In this regard, three models are found to place strong emphasis on this aspect of giftedness (developmental nature) and therefore they have been considered. These are: Gagné's (1985, 2010) Differentiated Model of Giftedness and Talent (DMGT), Heller's and Perleth's (1994) Munich model and Piirto's (1995) Pyramidal model.

The next section focuses on analysing the main propositions of each model. The discussion of the five models will follow a chronological order starting with earliest and moving on to the most recent.

3.3.1 Three-Ring Conception Model by Renzulli (1978, 2005)

The most well-known attempt to redefine giftedness is credited to Renzulli (1978), who conducted an extensive analysis of some past and current definitions, specifically Marland's (1972) definition; a definition that was proposed by the US office of Education. First, Renzulli (1978) criticised Marland's definition for not including motivation though a large body of research has emphasised motivation as an important factor for creative and productive behaviors. The second criticism is related to the six categories mentioned in the definition: general intellectual ability, particular scholastic aptitude, creative and productive thinking skills, abilities in leadership, visual and expressive arts, and the psychomotor domain. Renzulli (1978) argued that these categories are not parallel as two of them (academic aptitudes and visual and performing arts) represent general performance areas in which talents and abilities

are manifested, whereas the other four categories are abilities that appear in performance areas. In response to this criticism, Renzulli(1978) proposed his conception of giftedness as below:

Giftedness consists of an interaction among three basic clusters of human traits. These clusters being above average general abilities, high levels of task commitment, and high levels of creativity. Gifted and talented children are those possessing or capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. Children who manifest or are capable of developing an interaction among the three clusters require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional programs. (p.261)

Renzulli (1978) claimed that his conception of giftedness is an operational one for three reasons. First, the conception is based on three criteria which are derived from the best available studies dealing with the characteristics of gifted and talented individuals. Second, the definition offers guidance for the selection and/or design of identification tools and procedures that can be used to develop defensible identification systems. Third, this conception provides guidelines for provision programmes.

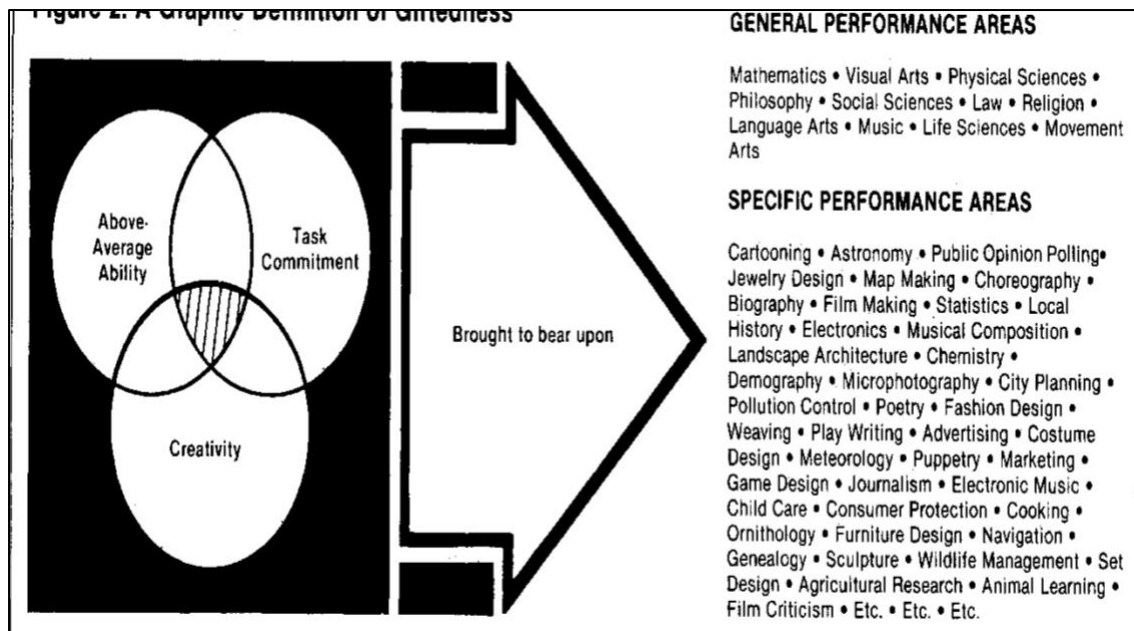


Figure 3.1 Three-Rings Model of Giftedness according to Renzulli (1978, p.184)

3.3.1.1 Above average ability

As shown in Figure 3.1, the model makes a distinction between two types of abilities: general and specific. General ability consists of traits that can be applied across all domains including the capacity to process information, to integrate experiences that result in appropriate and adaptive responses to new situations and the ability to engage in abstract thinking. This kind of ability can be measured through tests of general aptitudes or intelligence and are broadly applicable to a variety of traditional learning situations. In contrast, specific abilities consist of the capacity to acquire knowledge, skills or the ability to perform in one or more activities of a specialised kind. The three-ring model correlates these two kinds of abilities by assuming the existence of a strong relationship between them. For instance, a person's potential and aptitudes in specific areas such as chemistry and mathematics can be determined from general ability and aptitude tests as well as achievement tests and tests of specific aptitude. However, in his revision of the model, Renzulli (2005) realised that many specific

abilities such as applied arts, athletics, leadership, planning and human relation skills cannot be easily indicated by these tests. Thus, he asserted that these specific abilities should be evaluated through observation by skilled observers or other performance-based assessment techniques.

Thinking about the Omani context, it seems that those personnel involved in developing the strategic plan for gifted education in the MOE were aware of the difficulty of measuring many specific performance abilities. That is evident in the areas that have been considered as areas of giftedness and talent. My personal communications with some personnel of the MOE regarding the awaited strategic plan revealed that the focus will be given to specific school subjects while other specific areas will not be considered (A. AL Mabsali, February 20, 2018). For instance, those learners who display outstanding performance in non-academic areas such as sports or music will not be targeted in this plan. Given that gifted education in Oman is still striving to emerge, it makes sense to focus on giftedness in specific academic subjects such as Science, Technology and Mathematics (Mayer, 2005). In addition, cultural values seem to have played a role here as the domains like music and arts are not highly valued in Omani society.

The distinction between the two types of abilities led Renzulli (2005) to argue against the use of intelligence tests as the only measure of creative accomplishments. This is a position that has been supported by many researchers such as Witty (1963), see Section 3.2.3, and Sternberg and Davidson (1986) who argued that the use of test score cut-offs is more likely to lead to a serious problem of under-identification of gifted children. Although Renzulli (2005) acknowledged the difficulty of determining exactly

how much measured intelligence is necessary for high levels of creative-productive accomplishment within any given field, he proposed that an IQ of 120 or higher is sufficient to start considering the other two traits. For the purpose of understanding how the suggested identification procedures within the MOE in Oman are influenced by Renzulli's propositions, a brief description of this identification system is provided here.

Al Jahwary (2016, November 07) stated that the proposed identification system in the strategic plan will follow four phases. The first phase is based on the learner's self-assessment as well as the assessment of different persons with whom the learner has a close relationship; this includes parents, teachers and peers. The second phase will be based on the scores of academic subject tests. For one to be nominated for the following diagnostic tests, a score of 90% or above should be obtained in all academic subjects. Those students who pass phases one and two, will have to take the IQ test. A score of 100 or above is sufficient to qualify a student to take the creativity test. This seems more flexible compared to Renzulli, who suggested that 120 is sufficient to start considering the other two traits of giftedness.

3.3.1.2 Task commitment

The second cluster of traits in Renzulli's model is motivation or task commitment. It refers to the ability of gifted individuals to immerse themselves totally in a specific problem or area for an extended period of time. This cluster is frequently described by various terms as perseverance, endurance, hard work, dedicated practice and self-confidence. Unlike cognitive abilities, it is hard to measure task-commitment through tests, yet Renzulli (1978, 2005) asserted that any attempt to define giftedness should include task-commitment as a major component of giftedness. With regard to the

context of this study, unlike cognitive ability and creativity, this cluster of traits does not seem to be explicitly considered. An analysis of the newspaper report reflected a consideration of personality traits in general, yet there is no direct reference to motivation or task-commitment per se, nor is there an indication of how such a trait will be assessed. Nevertheless, the fact that a large body of research concerning giftedness (such as Renzulli, 1978; Gagné, 1985) emphasised the importance of motivation and task-commitment, makes it interesting to consider when analysing Omani teachers' ITG to see if it forms part of their theories of giftedness.

3.3.1.3 Creativity

According to Renzulli (1978), in many research projects related to giftedness, participants are often selected because they are recognised for their creative accomplishments. In discussing this cluster, Renzulli (2005) noted that very few tests have been validated to measure real-life criteria of creative accomplishments. Given the problem of the creativity tests (such as the divergent thinking tests), Renzulli (2005) proposed the use of alternative methods for assessing creativity, such as an analysis of creative products to make predictions about creative potential and student self-reports about creative accomplishments. When thinking about the possibility of implementing such alternative methods within the context of the present study, two issues should be considered. The first issue is related to the ability and readiness of Omani teachers to assess students' accomplishments in terms of creativity. The second issue is the subjectivity of the assessment: if students' creativity is measured through a product analysis and self-assessment reports rather than using creativity tests, then to what extent can the results of such methods be objective?

3.3.1.4 Potential vs. performance

The model also distinguished between potential and performance. Renzulli's model assumed that a person can have remarkable potential for mathematics, swimming or piano-playing but until that potential is manifested in some type of superior performance, we cannot say that this person displays gifted behaviours. Therefore, it will be interesting to explore this assumption in Omani teachers' ITG to find out if they perceive giftedness in terms of potential or performance.

3.3.1.5 School-house vs. creative-productive giftedness

Renzulli (1978) made a distinction between two types of giftedness: school-house and creative-productive. School-house giftedness or test-taking or lesson-learning (as called by Renzulli) is mostly valued in traditional education settings and it is most easily measured by the scores of cognitive ability tests. The competencies that learners display in these tests are analytical skills rather than creative and practical skills (Renzulli, 1999). In order to support this type of giftedness, Renzulli, Smith, and Reis (1982) developed a programming model known as curriculum compacting, which was based on the idea of modifying curricular content to accommodate advanced learners. Follow-up research on this programming led Renzulli and his assistants to conclude that *"teachers can eliminate up to 50 % of regular curricular materials for high achieving-students without causing any decline in the standardized achievement test score"* (p.8).

On the other hand, creative-productive giftedness describes the development of original thoughts, solutions, materials and products in specific domains that are purposefully designed to have an impact on one or more target audiences (Renzulli, 1999, 2005). Learning situations that are developed to serve this kind of giftedness stress the use of knowledge and thinking process in an integrated inducted and real

problem-oriented way. Moreover, unlike school-house giftedness which is stable over time, creative-productive giftedness is temporal and situational (Renzulli, 1999). Looking at the distinction between school-house giftedness and creative-productive giftedness, it can be assumed that individuals within school-house giftedness are very likely going to thrive when they are involved in traditional education settings that rely on achievement and standardised tests. However, academic achievements scores might not give accurate indications about creative-productive giftedness because such a type of giftedness is based on socio-cultural recognition.

It is worth noting that Renzulli (1978) did not undervalue school-house giftedness, but through the Three-Ring model, the scholar attempted to emphasise the importance of paying more attention to the development of creative-productive giftedness than the abilities revealed on traditional tests of intelligence, aptitudes and achievement. This is because, as Renzulli maintained:

History tells us it has been the creative and productive people of the world, the producers rather than consumers of knowledge, the reconstructionist of thought in all areas of human endeavor, who have become recognised as 'truly gifted' individuals. History does not remember persons who merely scored well on the IQ tests or those who learned their lessons well but did not apply their knowledge in innovative and action-oriented ways. (p.256)

Renzulli's (1978) distinction between these two types of giftedness encouraged this study to find out if such a distinction exists among Omani teachers. Considering the MOE's proposed identification system, it seems that creative-productive giftedness is emphasised over school-house giftedness. That is evident in considering creativity as a condition for considering a student as gifted or not. However, are Omani teachers' current implicit theories in accordance with such a conception? That is something this study seeks to explore.

In summary, the flexibility and potential generalisations of the Three-Ring conception may explain why it is so well-known and favoured by practitioners in the field of gifted education. One of the strengths of the model is its incorporation of a broad-level explanation of the three components of giftedness and the fact that it is not limited to a specific domain, age or situation. However, the model has been criticised for its lack of supporting research for each ring of the model (Miller, 2012). For instance, with regard to creativity, there is a lack of consistency in the definitions of creativity as well as a lack of evidence for measurement validity. I have analysed four articles written on the Three-Ring model (Renzulli's 1978, 1999, 2005; Reis et al, 1983), but no definition of creativity is given in any of these articles. Moreover, the model was also criticised for not being considerate to gifted underachievers. By proposing motivation and creativity as requirements for a person to be labelled as gifted, this makes the model inapplicable to underachievers who might have the abilities but for some reasons their abilities are not manifested (Gagné, 1985). In response to various criticisms of the Three-Rings model, Gagné (1985) redefined giftedness and presented the Differentiated Model of Giftedness and Talent (DMGT).

3.3.2 Differentiated Model of Giftedness and Talent (DMGT) by Gagné (1985, 2005, 2010)

The essence of the DMGT is the dichotomy between domains of abilities and fields of performance which correspond to gifts and talents respectively (Gagné, 1985). Most scholars in the field of gifted education commonly use gifts and talents as synonyms, but the DMGT model stands alone in its distinction between these two key concepts. A note of caution must be issued here: the DMGT has been continuously updated by its originator. Therefore, the discussion below will attempt to highlight the modifications

and updates within different versions of the model, specifically the 1985, 2005 and 2010 versions.

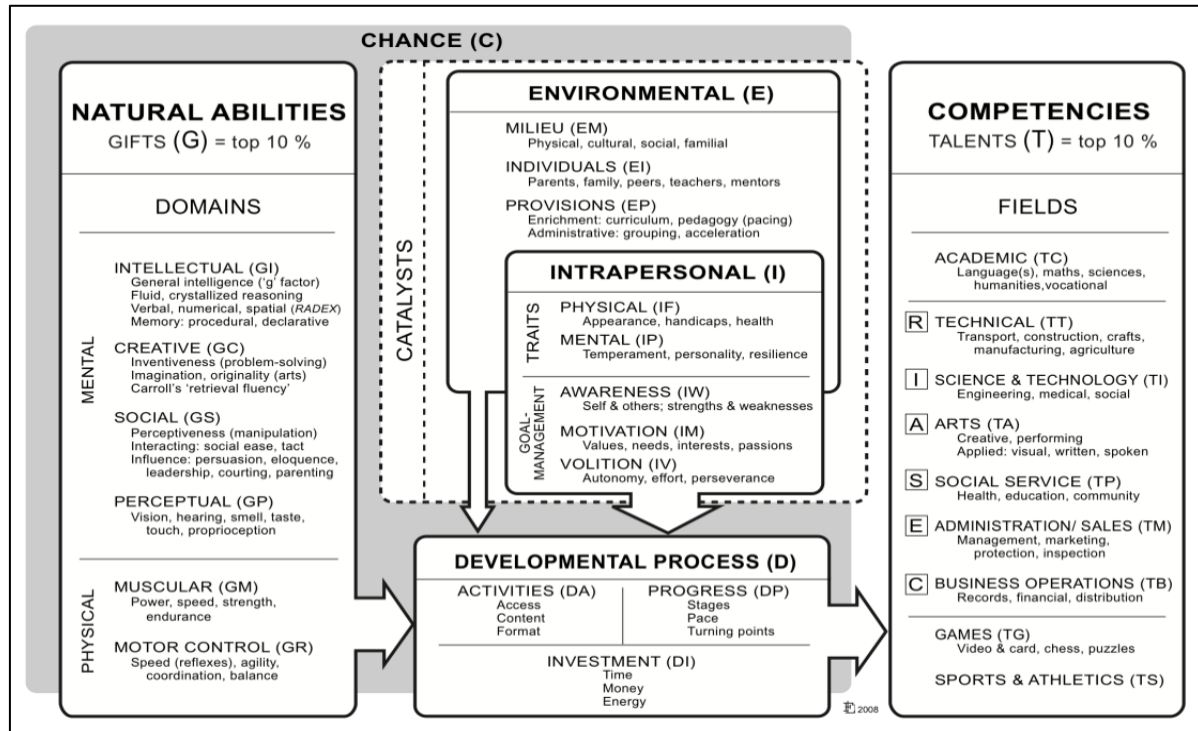


Figure 3.2 The Differentiating Model of Giftedness and Talent; version 2010, according to Gangé (2013 p.7, 2010 update)

3.3.2.1 Giftedness vs. Talent

This distinction has been used to anchor the definitions of 'giftedness' and 'talent' which have been revised continuously since 1985. Below are the latest refined definitions quoted from Gagné (2010, p. 82):

Giftedness: designates the possession and use of untrained and spontaneously expressed outstanding natural abilities or aptitudes (called gifts), in at least one ability domain, to a degree that places an individual at least among the top 10% of age peers.

Talent: designates the outstanding mastery of systematically developed competencies (knowledge and skills) in at least one field of human activity to a degree

that places an individual at least among the top 10% of 'learning peers.' Table 3.2 summarises the differentiation made between gifts and talents as explained by the DMGT model.

Table 3.2

The Differentiation Made Between Gifts and Talents as Explained by the DMGT Model.

Gift	Talent
<ul style="list-style-type: none"> -Natural abilities, natural aptitudes - Six natural abilities domains divided into two categories: general and specific abilities. - These six domains are classified in the mental realm (intellectual, creative, socio-affective and perceptual abilities) and the physical realm (sensori-motor and muscular abilities) - Each domain can be subdivided into any number of categories - Innate and developmental (through maturational process and informal learning exercises, especially during early childhood) - Development is partially controlled by genetic endowment -Can be noticed through childrens' behaviour when they perform tasks 	<ul style="list-style-type: none"> -Well-trained skills, outstanding performance + a developmental construct - Emerges from the transformation of high aptitudes/gifts into well-trained skills characteristic of a particular field of human activity -Assessed normatively, comparing talented individuals with others who have been learning for an

<ul style="list-style-type: none"> -Exist in all children, but those children who are labelled as gifted express outstanding level of these abilities - Easily observed at early childhood due to limited environmental and systematic learning influences - Correlate positively with rapid learning 	<p>approximately equal amount of time</p> <ul style="list-style-type: none"> - Talented individuals are those whose outstanding skills place them among the top 10 percent within their occupational field -May slow at particular times, but it can be maintained through formal training
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Gagné (2005) explained that the shared characteristics between the two terms may justify why professionals as well as laypersons often confound these the two concepts. For example, both terms refer to human abilities and both are normative as they target individuals who differ from the average. Further, both concepts are used to refer to non-normal individuals who display outstanding behaviors. Nevertheless, Gagné's differentiation between giftedness and talent has always been questioned. For example, this differentiation is in contrast to Sternberg's position (2000), which stated that it is impossible to separate purely genetic from environmental contribution. Sternberg (2000) postulated that abilities represent forms of developing expertise which are considered as results of the interaction between environment and genes. In this instance, gifts and talents cannot be seen as two different concepts. Similarly, Guenther (2004) pointed out that if we think of giftedness as 'the raw material' that

makes talent, this means that giftedness is only detected when it is transformed into a talent. If this is the case, then, the only way to have a hold on giftedness is through performance (talent). In turn, the only way to identify gifted students would be by spotting the talented students who already show outstanding performance. Therefore, Guenther (2004) argued that for practical purposes one is justified in thinking of talent as equal to giftedness. Baer and Kaufman (2004) also wondered how Gagné's distinction between natural abilities (gifts) and developed skills (talents) differs from the commonly used labels of aptitudes and achievements. Accordingly, Baer and Kaufman (2004) contended that the ambiguities and problems related to giftedness conceptions cannot be resolved by giving new names to familiar concepts as Gagné did.

In the context of my study, I wonder if teachers' responses will reveal such a differentiation between the terms gift and talent. The fact that these two terms do not have distinct equivalents in Arabic might make the analysis in light of Gagné's model quite challenging. An attempt to check the two terms in Google translate, gave the same Arabic translation 'Mawhiba' for both terms. Unlike other Arab countries, the word 'mujeedeen' is used more frequently in the Omani context than 'Mawhiba'. The use of such a word might raise an issue during data collection. When a learner is described as mujeed (the singular form of mujeedeen), this means s/he scores highly in most academic subjects. Therefore, using the 'mujeedeen' word might constrain teachers' thoughts of giftedness to merely reflect academic giftedness. Thus, I need to be cautious during data collection and use the word 'mawhiba', but if the word 'mujeedeen' or 'mujeed' is mentioned, I will need to probe and prompt to see what they understand by this word in relation to giftedness. In addition to 'gift' and 'talent'

which are viewed as two distinct concepts, the DMGT has also stressed environmental and intrapersonal catalysts as crucial components in the transformation process of gifts into talent (talent development process).

3.3.2.2 Environmental Catalysts (E)

The initial version of DMGT seemed very simple with very little detail. As Figure 3.3 shows, for example, Gagné (1985) proposed three types of catalysts including environment, personality and identification models.

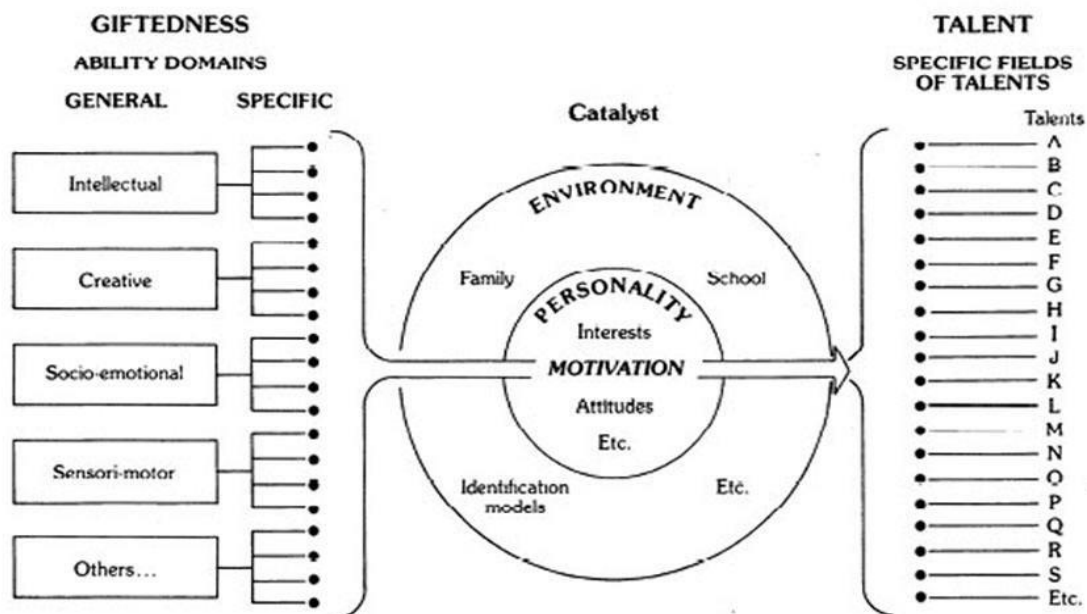


Figure 3.3 The Differentiating Model of Giftedness and Talent (DMGT); version 1985, according to Gagné (2013, p.6)

However, as he was revising the model, it became more detailed. As shown in Figure 3.2, the 2010 version of the DMGT, three types of environmental catalysts (E) were proposed. The first E catalyst is 'milieu', which refers either to macroscopic levels such as geographic and demographic catalysts, whereas the microscopic levels are family size, socio-economic status and neighbourhood services. The second E catalyst is 'persons' who psychologically have a significant influence on the immediate environment of gifted and talented children, for example parents, siblings, the extended family, educators, friends and so forth. The third E catalyst covers all provisions and services directed to gifted learners, such as grouping, enrichment and acceleration.

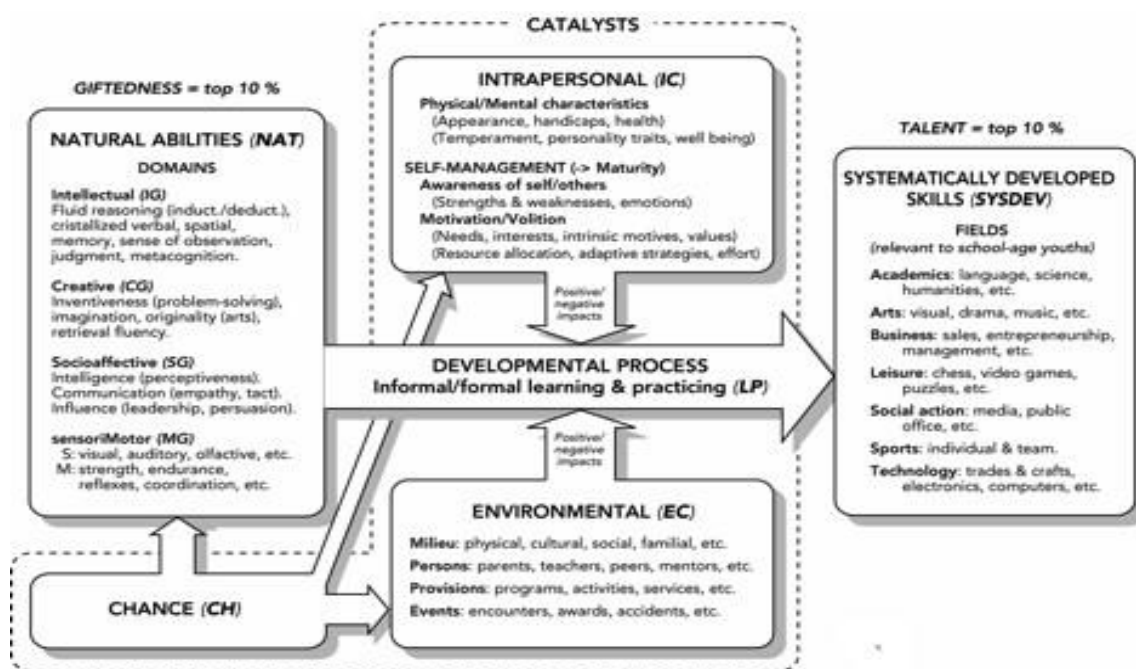


Figure 3.4 The Differentiating Model of Giftedness and Talent; 2005 version according to Gagné (2013, p.6)

An important point to mention is that in Gagné (2005), the intrapersonal catalysts were placed above the environmental catalysts, see Figure 3.4. However, in Gagné (2010) updated model, Figure 3.2, the E catalysts have been deliberately placed above the I catalysts to signal the crucial filtering role played by the intrapersonal catalysts with regard to environmental influences. Gagné (2010) explicitly explained this point when he said, *“the bulk of environmental stimuli have to pass through the ‘sieve’ of an individual’s needs, interests, or personality traits.”* (p. 85)

3.3.2.3 Intrapersonal & Self-management Catalysts

The intrapersonal catalysts (I) include five sub-components which are grouped into two main dimensions, namely stable traits and goal management processes. Stable traits refer to the physical and mental qualities of an individual which are largely controlled by genes. The mental components cluster around two major constructs: temperament and personality (Gagné, 2005, 2010). The concept ‘temperaments’ refers to behavioral predispositions that are controlled by genetic components, whereas the term ‘personality’ encompasses a large diversity of positive and negative behaviours that are acquired (Gagné, 2005). With regard to motivation, while Renzulli (1978) considered it as one of the three rings of giftedness, in the DMGT it is deemed to be one of the principal catalysts of the actualisation of giftedness into talent (Gagné, 1985). In the later updates of the model (see Figure 3.2), motivation was listed under the dimension of goal-management to indicate a broader role of motivation in talent development (for more details, read Gagné, 2003 November). In addition to motivation, another two sub-components are encompassed within goal-management: awareness and volition.

Chances was originally presented as a causal factor associated with the environmental catalysts, for example the chance of being born in a particular family, see the 2005 version, Figure 3.4. However, later Gagné (2010) realised that ‘chances’ is not a causal factor because, for example, a person has no control over the socio-economic status of the family or the quality of the parenting s/he receives. Moreover, the influence of chances can be recognised in the transmission of hereditary characteristics. Hence, due to the refined role of ‘chance’, we can no longer see the ‘chance’ factor in the latest visual representation of the DMGT. Nevertheless, due to its popularity, Gagné (2010) created some room for it in the background of the components it influences (see Figure 3.2).

To conclude, the influence of the catalysts on the talent development process suggested by DMGT model seems very relevant to the current study. Two research questions (RQ2 and RQ3) of this study aim to investigate Omani teachers’ ITG, which undoubtedly will involve investigating teachers’ implicit theories about the developmental nature of giftedness. In other words, do Omani teachers view giftedness as a fixed or developmental construct? Hence, the analysed data related to this part can be compared with the propositions suggested by the DMGT.

3.3.2.4 Prevalence estimate

The DMGT includes a cut-off point that specifies the percentage of gifted learners as a subgroup within a larger population. Gagné (1991) suggested 15 per cent, then in a later article Gagné (2000) proposed that gifted and talented persons represent 10 per cent of any group of any domain. Gagné (2005) argued that having cut-offs is important as they provide a concrete estimation of students who will be selected for gifted programmes or study samples. However, it is widely contested that the use of

cut-off points in the form of a percentage (15% for the 1991 version and 10% for the 2008 version) is completely arbitrary; why is it 10 percent not 5 percent? (Baer & Kaufman, 2004; Feldhusen, 2004; Porath, 2004). Moreover, the cut-off points may lead to the simplification of giftedness itself. For instance, if Gagné's cut-off point is used in any population such as Oman which has over two and half million citizens, this can mean that nearly 250,000 of Omanis should be identified as gifted and talented, whereas the real number of gifted individuals could be more or less. Renzulli (2005) referred to this as talent pool size and he contended that it varies in any given context or even in any given school depending on a number of factors. First, the general nature of the total student body influences the talent pool size. For example, the talent pool size in schools with a higher number of high achieving students will be larger than in lower-scoring schools. In addition to the size of the student body, Renzulli (2005) stated that the availability of human and material resources also influences the talent pool size.

Despite the critiques, the DMGT massively contributed to the field especially by suggesting convincing reasons for underachievement among gifted learners. It assumed that a person may possess outstanding natural abilities or gifts, but they can remain as potentials and not transformed into talents. Such an assumption can offer convincing reasons for underachievement among gifted learners.

3.3.3 Munich Model of Giftedness by Perleth's and Heller's (1994)

The Munich Model of Giftedness (MMG) was first developed to be used as a reference model for the first two phases of a large educational-psychological project called the Munich Longitudinal Study of Giftedness (MLSG) that was carried out by the University

of Munich in Germany. The first phase of the MLSG included a large multi-regional sample of 26,000 students in six cohorts and was originally carried out from 1985 to 1989 and then completed by two follow-ups in the nineties (ending in 1997). To get a full insight into the aims of each phase, refer to Appendix 3.1. Like most modern models of giftedness, the MMG adopted a multi-dimensional trend of giftedness through which giftedness is conceptualised as a construct that consists of:

seven relatively independent ability factor groups (predictors), and various performance domains (criterion variables), as well as personality (e.g. motivation) and social environmental factors that serve as moderators for transition of individual potentials into excellent performances in various domain.
(Heller, Perleth, & Lim, 2005, p.148)

Based on the above quotation, giftedness or talent is defined as an individual potential for extraordinary achievement either in one or multiple domains (Heller, 2005; Heller et al., 2005; Perleth & Heller, 1994). As shown in Figure 3.5, the model suggested that the transformation of individual potentials (predictors) into genuine achievements (criteria) relies on a number of non-cognitive personality traits and environmental factors (moderators). It is noteworthy to mention here that adopting a multi-dimensional conception of giftedness required a multi-method approach in measuring giftedness which may be seen as a strength of this model. Therefore, during the period of the Munich longitudinal study of giftedness, various evaluation instruments were developed to measure different aspects represented in the MMG.

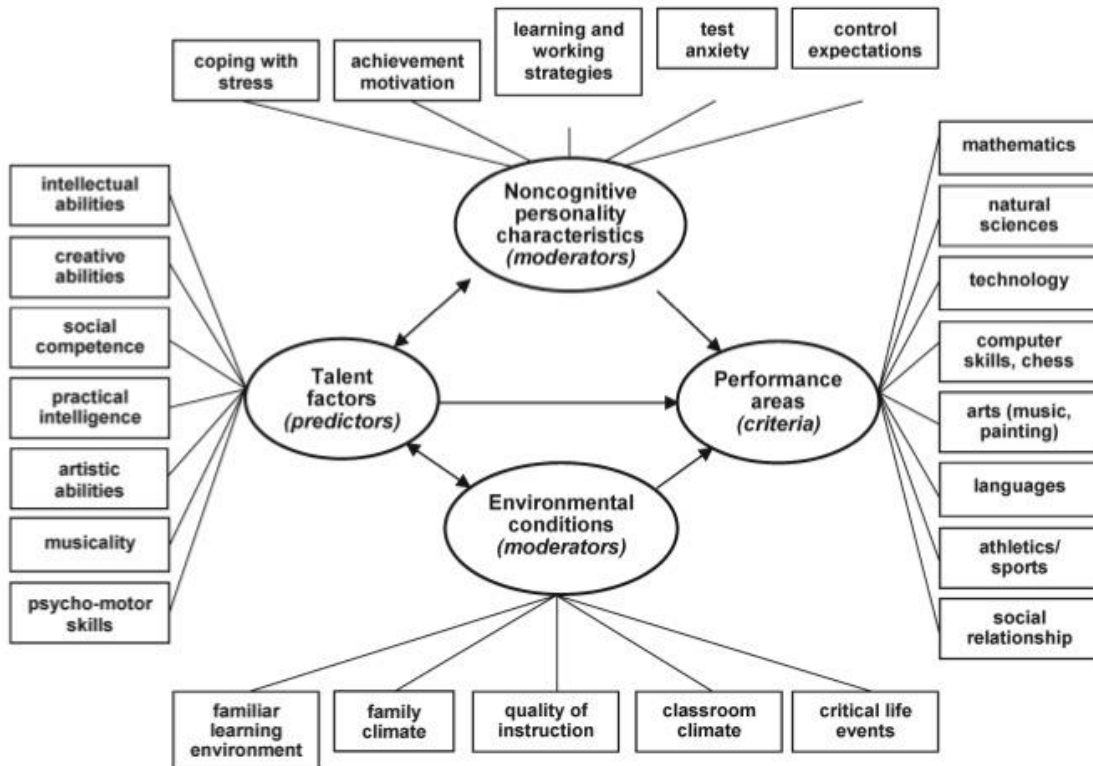


Figure 3.5 The Munich Model of Giftedness (MMG) as an example of multi-dimensional conceptions of giftedness, according to Heller (2013, p.52)

In contrast to Gagné's (2010) differentiation between gift and talent, the MMG used the two terms synonymously. Nonetheless, the MMG's moderators are similar to Gagné's catalysts as both of them influence the transformation of individual potentials (predictors) into concrete extraordinary performances (criteria). Furthermore, the predictors in the MMG correspond to the natural abilities in the DMGT. Therefore, these mutual similarities shared by the two models may well justify the selection of both models to contribute to theoretical framework of the present study.

Despite the inspirational features of the MMG to the context of this study, it is not without critiques. Although currently the heritability of cognitive ability in childhood seems to be well established (Renzulli, 2005), it is hard to understand if Perleth and Heller (1994) did consider genetic contribution in their conception of giftedness. While

it is true that in the different versions of the DMGT Gagné did not explicitly emphasise the role of genetic contribution, but at least labelling 'gifts' as 'natural abilities' reflected the role of genes as a base for talent development. In addition, the inclusion of learning and instruction among the environmental moderators may reflect that the role of learning and instruction is equal to other environmental moderators. However, I personally believe that learning and practices might be more influential in talent development process than other environmental moderators. Thus, it deserves to be given wider space in the MMG model. Such a shortcoming seems to have been realised later by Ziegler and Perleth (1997), who extended the MMG and developed another two versions of the model, namely the Munich Process Model (MPM) and Dynamic Ability-Achievement Model (MDAAM). Hence, realising the high value of the learning process in the acquisition of domain-specific competencies and the building of knowledge, Ziegler and Perleth (1997) symbolised it with a grey triangle in their models. Nevertheless, the simplicity of the original MMG and its correspondence with other models discussed in this section urged the present study to include its propositions as part of the theoretical framework along the other two developmental models (i.e. Gagné's DMGT and Pyramidal models). It is beyond the scope of this section to discuss the MPM and MDAAM, but details can be found in Appendix 3.2 and Heller et al. (2005).

In summary, it is worth noting that the translation of the MMG into a number of educational measures has enriched the field of gifted education. As revealed by the goals of the MLSG (see Appendix 3.1), the use of the MMG as a reference model in the MLSG resulted in the creation of a set of multiple tests and questionnaires called Munich High Ability Battery Test (MHAB). The MHAB contains two dozen tests and

standardised questionnaires for assessing the different predictors and moderators variables represented by the MMG model; details on the MHAB can be found in Heller (2005) and Heller and Perleth (2008). Another strength of the model is that it has been nationally and internationally validated. After the two phases of the Munich Longitudinal study of giftedness (1985 to 1997), many studies were carried out in relation to the results of this long study at the Center for the Study of Giftedness. Examples of these studies are reported by Heller (2013), including a study on the development of metacognition and meta-memory in childhood and the relationship between leisure time activities and creative performance.

3.3.4 Pentagonal Implicit Theories Model of Giftedness, Sternberg and Zhang (1995)

This theory was proposed by Sternberg and Zhang (1995) who are considered as key researchers in the field of gifted education in the current century. The model was in response to a series of questions that arose in the Sternberg's and Zhang's minds about giftedness; examples of such questions are quoted from Sternberg and Zhang (1995, p. 88):

Why is a child who scores in the top 1% on the Wechsler Intelligence Scale for Children much more likely to be labelled as gifted than a child whose 100-meter sprinting time places her in the top 1% of her age cohort? Why is a physicist who is considered Number 1 in the country by his peers or another panel of judges considered gifted, whereas the criminal who is Number 1 on the FBI's most wanted list is not?

As a result, the two theorists investigated their beliefs concerning the above questions and presented them in a pentagonal shape (see Figure 3.6), labelling it as 'Pentagonal Implicit Theories of Giftedness'. Briefly, Sternberg and Zhang (1995) maintained that

for a person to be judged as gifted, s/he needs to meet five criteria: excellence, rarity, productivity, demonstrability and value.

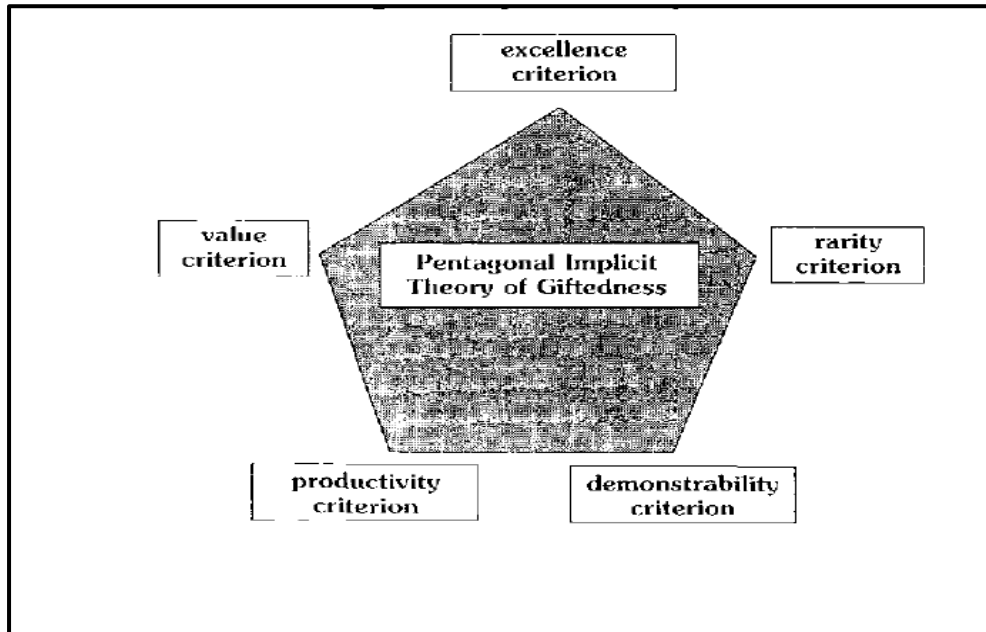


Figure 3.6 The Pentagonal Implicit Theories of Giftedness, according to Sternberg and Zhang (1995, p. 89)

3.3.4.1 Excellence

The model suggested that excellence relative to peers is a vital condition for a person to be labelled as gifted because *“the designation of the excellence depends upon the skills of those against whom one is judged”* (Sternberg & Zhang, 1995, p.89). To clarify, for example, a musical performance of an 8-year old student who is involved in weekly music lessons at school might be exceptional, but if it is compared to the musical performance of an 8-year old student who has been trained at a conservatory since he was four, the same performance might be undistinguished. However, when considering excellence as a criterion of giftedness, two issues arose. The first issue is concerning those learners who might be gifted but due to unexplained reasons they underachieve in the school tests. Reis and McCoach (2000) carried out a theoretical review of three decades of research on underachievement among gifted students.

They concluded their review by stating that no reason exists to claim that gifted learners must score academically high or that ability and achievement are strongly correlated. In this instance, another issue comes to light related to what is meant by excellence and how it is assessed. Is it better to measure excellence through classroom grades or through standardized achievement tests? In the context of the present study, excellent students are usually those who score highly in the summative and formative tests during a semester. Therefore, it is very likely that such a criterion will be among the top ones given by the targeted teachers in this study. Thus, given the problematic nature of this concept, careful attention needs to be given if excellence is perceived as a component or criterion of giftedness. I will need to dig deeper during the interviews using prompts and probes so that teachers can explain their conceptions of excellence.

3.3.4.2 Rarity

This attribute states that in order to be labelled as gifted, a person must manifest a high level of an attribute that is rare relative to peers. The rarity attribute should supplement the excellence criterion. If everyone in a peer group is to be judged to do superior work, no one would be judged as gifted. For example, if we give a class of highly able students a Maths test, the whole class are expected to get high marks, but we cannot say that all students in this class are gifted because the excellence is not rare.

3.3.4.3 Productivity

Sternberg and Zhang (1995) asserted that for an individual to be labelled as gifted, s/he must or potentially produce something in a specific domain. This criterion seems to be supported by other key theorists in the area of gifted education such as Gardner, (1983) who believed that high intelligence scores are insufficient for labelling a person

as gifted because the high scores do not show if one can do anything. Similarly, Cross and Coleman (2005) argued that having a group of gifted learners with unrealised potential is unacceptable because students are supposed to show signs of potential. However, if productivity is viewed as a condition for giftedness, what about young children who are identified as gifted, but have not produced something yet? In this respect, Sternberg and Zhang (1995) contended that children who are labelled as gifted are labelled based on their potential because at their age they cannot be productive. As children get older, more emphasis is placed on their productivity rather than their potential. Therefore, it is not surprising that children who were not considered exceptional are just recognised as gifted in their adulthood. In accordance with Sternberg and Zhang (1995), Cross and Coleman (2005) offered a compromise in which giftedness is seen as an age-specific term that refers to potential for younger learners and performance for secondary school learners.

3.3.4.4 Demonstrability

This criterion suggests that the superiority of the individual on the dimension(s) which determine giftedness have to be demonstrable through one or more tests that are valid. In other words, a person needs to demonstrate that s/he possesses the abilities and achievements that qualify him/her to be labelled as gifted. In fact, the validity of giftedness measurements continues to stir up controversy among researchers and practitioners, especially as testing has shifted more and more towards an emphasis on performance and product assessment. In this regard, Sternberg and Zhang (1995) noted that *“the implicit theories of giftedness may not have changed, but what is considered valid as demonstration of giftedness may have”* (p.18). For instance, as we saw previously, having doubts about the validity of divergent thinking tests in testing creativity, led Renzulli (2005) to propose using alternative methods for

assessing creativity. These alternative methods of creativity testing have been also questioned with regard to their objectivity. Reflecting on the Omani context where standardised tests have not yet been implemented in the identification of gifted learners, teachers may adhere to school grades as the main indicators of students' giftedness. Given the fact that teachers might not be aware of the tests used for measuring different dimensions of giftedness (such as the Torrance test for creativity and the Stanford test for testing intelligence), introducing teachers to some examples might be useful to know their beliefs about the importance of these tests in identifying gifted learners.

3.3.4.5 Value

The Pentagonal model proposes that for one to be labelled as gifted, s/he must show superior performance in a domain that is valued by that person or his/her society. Such a criterion has been advocated and justified by many researchers in the area of gifted education. For example, Hunsaker's (1994) examination of what behaviours are greatly valued in ancient cultures revealed that what is considered as gifted behaviour is usually linked to what a society sees as important for its survival. Chan (2007) stated that what is prized as a basis for giftedness may vary from one culture or even subculture to another because giftedness is interpreted differently across cultures. Similarly, Cramond (2004) argued that since music, food, arts, religions and other cultural components vary "*Why should giftedness be defined the same way in China and Beirut?*" (p.15). Given the fact that Oman is a conservative society in which people's lives are highly influenced by cultural norms and Islamic principles, the place of cultural values and religion and their interplay with people's lives is very important. In this vein, it is necessary to point out that exceptionality and superiority are highly appreciated in Islam (Alamer, 2010) and Oman, as an Islamic country, advocates

similar perceptions towards gifted and superior people. Hence, it will be interesting to explore to what extent Islamic values appear to guide Omani teachers' implicit theories of what is seen as gifted or not gifted. This does not mean that the investigation of Omani teachers' implicit theories of what is considered as gifted will be merely explored from the angle of Islam. Rather, as a member of the culture of this study, I expect that Islamic principles and values might appear to be a crucial influence on teachers' ITG.

3.3.4.6 Pentagonal Model Testing

Sternberg and Zhang (1995) verified their model through designing a test and administering it to three different groups of people. A first group was 24 prospective teachers at Yale University, while the second group included 39 parents of gifted children in Connecticut and a final group involved 72 in-service and pre-service teachers from the University of Hong Kong. One limitation of this validation is the difference of the groups selected for the administering the test. For more accurate results, Sternberg and Zhang (1995) could have tested a third group of prospective teachers instead of parents to ensure that all the three tested groups shared similar or close circumstances and learning backgrounds. Regardless of this limitation, the findings from the three studies suggested a good fit between the five criteria of the pentagonal model and the data collected from all three groups of research participants. Participants of the three different groups used the five criteria when identifying students as gifted (Sternberg & Zhang, 1995; Zhang & Sternberg, 1998). However, the participants of the three groups indicated that while they do take demonstrability criterion (tests validity) into account when making judgements about giftedness, their schools do not. Moreover, by comparing the results obtained from the United States and Hong Kong, findings revealed that participants in Hong Kong took excellence into

account more for boys than for girls. This finding has inspired this study to explore how gender influences Omani teachers' ITG. Do Omani teachers perceive giftedness differently in light of gender? Are there specific domains where males seem to excel better than females? If yes, why do teachers believe so?

The Pentagonal model can form part of the theoretical framework of the present study as the five criteria can be very useful in analysing, classifying and organising teachers' theories, thoughts and beliefs of giftedness. Although this model seemed not to consider personal traits as a criterion that people consider when defining giftedness, the five criteria can work as a container where specific beliefs and thoughts pertaining to giftedness can be classified. To exemplify this, by considering Renzulli's (1978) Three-Ring conception which basically originated from Renzulli's implicit theories, the ring of creativity as a component of gifted behavior can be placed under the productivity criterion, whereas above-average ability can be placed under the demonstrability criterion.

3.3.5 Pyramidal Model by Piirto (1995)

This model was developed by an American specialist, Jane Piirto, in response to her dissatisfaction about the thoughts advocated by the United States Department of Education at that time, which indicated that the term 'gifted' implies a mature power rather than a developing ability. Being unconvinced by such thoughts, Piirto (1995) developed her philosophical position of giftedness as a developmental construct and presented it as a pyramidal framework. The Pyramidal model proposed that for a child to realise a talent potential, s/he must have four internal components: personality attributes, a minimum general ability, a thorn and a specific talent in a domain. These four components of talent development are influenced by environmental factors

(suns). The following discussion will analyse the Pyramidal model starting from the internal components and then moving to the external ones.

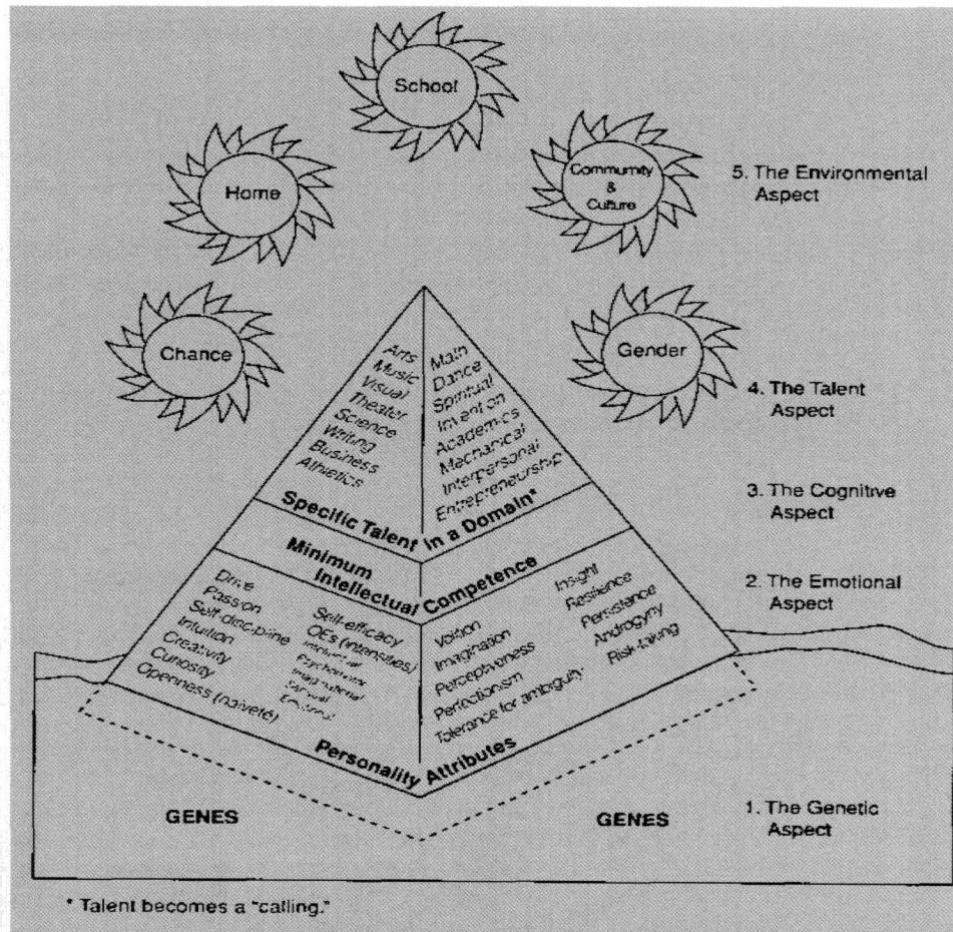


Figure 3.7 *The Pyramid of Talent Development according to Piirto (2000, p. 23)*

3.3.5.1 Genetic Aspect

It is important to mention that genes were not part of Piirto's (1995) original model, which indicates that genetic aspects and hereditary were not deemed as an element of giftedness. However, being influenced by the studies that were conducted at the University of Minnesota and elsewhere of twins who were reared apart, Piirto (1999) added genes at the base of the pyramid to suggest that gifted people have certain genetic predispositions.

3.3.5.2 *Personality attributes*

Piirto (2000) stated that successful creators in all domains usually have some common emotional attributes which a person needs to achieve success. Some of these attributes are inherited while others can be cultivated. Among the key attributes are aggressiveness, androgyny, curiosity, self-discipline, flexibility, imagination, presence of over-excitability, persistence, perfection, resilience, risk-taking, self-efficacy, stubbornness, passion for work in a domain, intuition, perceptiveness, volition and insight. Piirto (2000) pointed out that the list is not complete but it shows that gifted adults who achieve success have many of these attributes. Csikszentmihalyi, Rathunde, and Whalen (1993) asserted that these attributes are present in most highly outstanding people and allow them to tap into optimal experiences.

3.3.5.3 *Minimum general ability*

As shown in Figure 3.7, cognitive ability was placed in the middle and designated as a minimum criterion to indicate that high IQ of intelligence is not a prerequisite for the realisation of most talents. This is because, as the model suggested, some specific domains do not require high IQ to manifest. Piirto (1995, p. 365) noted:

A high IQ does not hurt, however, and is necessary in certain areas, such as science. A philosopher requires an IQ of about 160 (Simonton, 1988), while a performer might need an IQ of 100 (Piirto, 1992), though a performer also needs extraordinary physical and verbal memory.

In this position, Piirto seemed even more flexible than Renzulli (1978), who suggested that an IQ above average score on an intelligence test is sufficient for gift development because other factors such as personality factors play a role in this development process (see Section 3.3.1.1).

3.3.5.4 A specific talent in a domain

According to the model, talents whether academic or non-academic, are inborn and innate and most talents can be recognised in a child through certain predictive behaviours (Piirto, 2000). To clarify this, Piirto gave an example of a mathematically talented student who may like to be responsible for statistics during a football match rather than being a cheerleader during the game. In line with other previously discussed models in this section, the Pyramidal Model also emphasised the idea that talents are demonstrated within domains that are socially and culturally valued in the society.

3.3.5.5 Thorn

People may have more than one talent and experience conflict in determining which talent to develop. Piirto's (1995) model suggested that a person can decide on what talent to develop once s/he experiences the vocational passion which Piirto (1995) referred to as 'thorn'. That is to say, when a person is engaged in an activity that is challenging and rewarding at the same time, something called 'thorn' takes place. During the 'thorn' state, this person seems to enjoy the activity and therefore seeks to repeat it. In addition, the person also experiences deep concentration, a sense of freedom from stress, a sense of control over the activity and s/he feels as if time is flying by. Consequently, a person can start to focus on what talent to cultivate by noticing what puts him/her in the state of thorn.

The idea of thorn and repeated performance in a specific domain of human activity which Piirto mentioned has reminded me of what Witty (1963) pointed to earlier when he described a gifted child as any child whose performance in a potentially valuable

line of human activity is consistently or repeatedly remarkable. Thus, for a performance to be classified as gifted or talented, consistency and repetition of the performance should be noticed and realised. For Piirto (1995), the main factor behind a remarkably consistent and repeated performance is what she labelled as 'thorn'. Moreover, interestingly, Piirto's thorn state sounds similar to the third ring in Renzulli's model 'task commitment', but Piirto (2000) clarified that the 'thorn' operates as a prior state to task-commitment. When a person is bothered by the state of thorn, s/he finds him/herself engaged in activities related to a specific domain and ultimately s/he becomes committed to that talent. Piirto (2000, p. 26) used the word 'thorn' to name the state she was describing and according to her *"it bothers, it pricks, it creates an obsession until the person begins to work on developing the talent."*

3.3.5.6 Environmental suns

According to the Pyramidal Model, the internal components demonstrated above originate within a person and they contribute significantly to talent development, yet their contribution is influenced by what Piirto named as six environmental suns. The first sun is to have a supportive family. To support her view, Piirto (1995) highlighted the following real examples:

A talent seems to be perpetuated in families, actors breed actors (the Fondas, the Redgraves, the Sheens); professors breed professors (the Meads); racecar drivers breed racecar drivers (the Unsers, the Pettys); athletes breed athletes (the Ripkens, the Roses); artists breed artists (the Wyeths, the Renoirs); writers breed writers (the Cheevers [Cheever 1984], the Updikes); musicians breed musicians (the Graffmans, the Bachs).(p.366)

However, what if one starts to manifest a talent that his/her family has no interest in? In this case, and according to the Pyramidal model, talents are thought to be nurtured with the help of other environmental suns including schools, culture and community. In addition to these suns, gender is perceived as the fifth environmental sun. Piirto

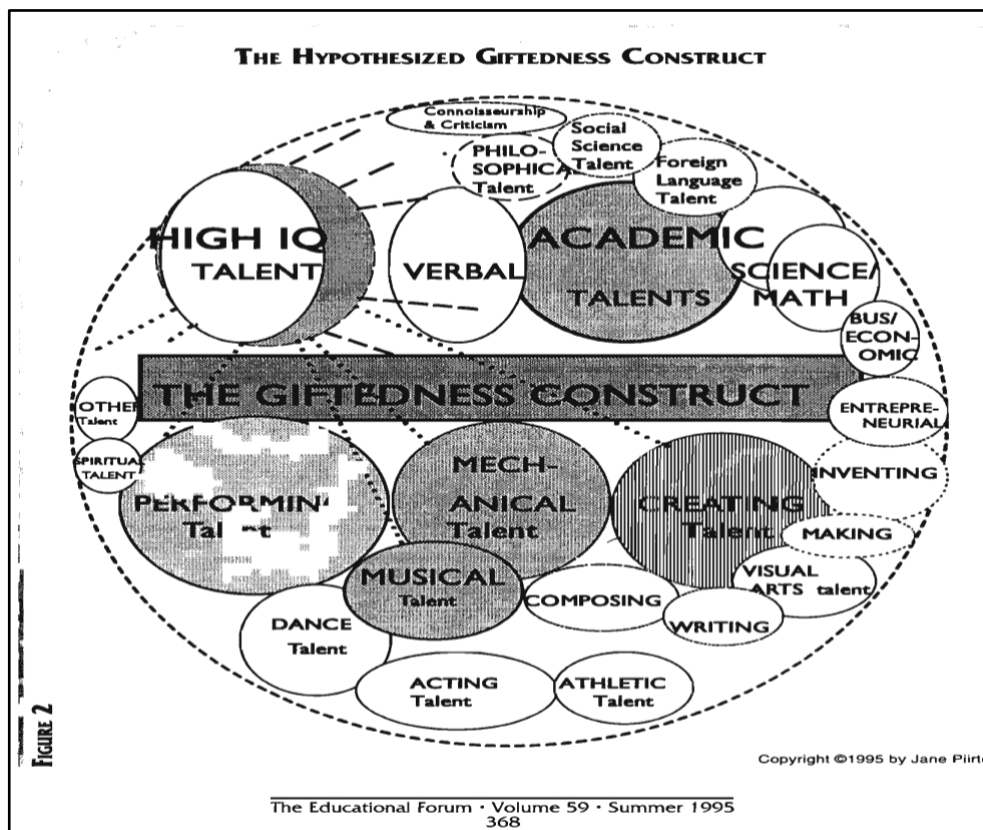
(1995) asserted that boys and girls may be born with equal talent, but something happens along the way that makes them different. She based her assertion on a study's findings reported by Subotnik, Kassar, Summers and Wasser (1993, as cited in Piirto, 2000) in which they examined the high-IQ students who attended the Hunter College Elementary School. Though women had earned more degrees than men, the former averaged \$40,000 per year in income while their male classmates' mean annual income exceeded \$100,000, despite the fact that women and men were similar in educational attainment (Subotnik et al 1993; as cited in Piirto, 2000, p. 27). Based on these findings, Piirto (2000) concluded that gender may have worked as a factor beyond their salary attainment.

The sixth environmental sun is chances. For example, the accident of where an individual is born can influence talent development. Piirto (2000) gave an example from her experience as a principal of a high IQ school in New York. She believed that children in her school have higher chances of being nominated for the audition to act in theatre, movies or TV shows because the casting agents value the verbal ability of children in that school. The author argued that living in Manhattan was a coincidence that had influenced children's acting career. In this instance, Piirto's view of 'chances' seemed similar to Gagné's (2010) earlier position regarding chances which were originally seen as a causal factor associated with environmental catalysts. Although chances are no longer considered as part of the environment catalysts in the DMGT, Gagné still believes that they play an influential role in a manifestation of a gift.

3.3.5.7 Giftedness construct

Figure 3.7 represents Piirto's view of talent development, but Piirto also presented her hypothesised giftedness construct, which is illustrated in Figure 3.8. Through the

hypothesised giftedness construct, Piirto (1995, 2000) attempted to offer a balanced position to the high IQ and giftedness debate. As Figure 3.8 shows, a high IQ is considered important in realising science, mathematics, verbal and academic talents. However, for other kinds of talents depicted in the lower part of Figure 3.8, such as performing, mechanical and spiritual talents, a high IQ score does not harm but it is not necessary. For instance, mechanical talent requires high fine motor ability or bodily-kinesthetic intelligence rather than high IQ scores. By looking closely at Piirto's conceptualisation of giftedness, some critical comments can be made. First, Piirto (1995) viewed giftedness as being made up of many kinds of talents. Such a view led Piirto to emphasise the necessity of being accurate when labelling talents. For example, if we identify a child's talent potential by means of a high IQ test, then we should say s/he has high IQ talent. However, if a child's talent potential is identified by academic achievement tests, then we should say s/he is academically talented. Similarly, if a child's talent potential is identified by means of experts' opinions and concrete products in a specific domain such as music, dance, athletics or mechanics, we should say musical talent, dancing talent and mechanical talent. This perspective of giftedness presented giftedness as an umbrella under which various forms of talents are listed. However, the idea of labelling talent based on identification means has raised many questions. If labelling a child as talented in music or talented in dancing is based on one means of assessment or 'experts' opinion', this may indicate that the model advocates unidimensional identification procedures in defining giftedness; a view that has been refuted by all the models discussed previously in this section.



*Figure 3.8 The Hypothesised Giftedness Construct according to Piirto
(1995, p. 368)*

In addition, Piirto (1995) claimed that schools and colleges focus on nurturing and developing academic talents, while other forms of talents are nurtured in conservatories, special programmes and camps. In this instance, she confined developing academic talent to the role of schools. While it is true that special programmes, conservatories and camps play a big role in nurturing students' talents, no one can disregard the role of schools in nurturing and developing non-academic talents. Such a position contradicts Piirto's model itself, in which she viewed school as one of the environmental suns that influences talent development. Another remark on Piirto's view of giftedness construct is the way she viewed creativity. As shown in

Figure 3.8, creativity is seen as a form of talent (creating talent) where creativity is present in all other forms of talents. In this sense, the role of creativity seems to be unclear. It is not clear whether creativity is seen as a talent, and if yes, then in what? If it is seen as an ability to be creative in a field of activity in which one has demonstrated talent, then there is no need to list it as a talent.

In respect of the present study, both Figures 3.7 and Figure 3.8 are important. The Pyramidal Model which focused on the developmental nature of giftedness shares many propositions with the other models which focus on this aspect; specifically, the external influences on the process of development which are named as environmental suns here. What is special about this model is the explicit mention of gender as an environmental influence, though the Pentagonal Model hinted at gender indirectly. Therefore, the Pyramidal Model has inspired the study to look at teachers' ITG and see to what extent gender is considered when thinking about giftedness. Are boys more gifted than girls or vice versa, and if they think so, why? Last but not least, the hypothesised giftedness construct has given another possible difference between the concepts of giftedness and talent. While Gagné's DMGT model perceived giftedness as constituents of talents, Piirto's model presented giftedness as a construct that is made up of many talents. The present study is not aiming to investigate how teachers perceive the two terms (gift/talent), but if this aspect is touched on by the participants, then teachers' ITG in this regard can be compared and analysed in reference to this model and Gagné's DMGT model as well.

3.3.6 Integrated notions from the models

Overall, these five models appear to share some consistencies and complementarities which have been integrated to form a clear understanding of giftedness. A discussion of how these consistencies and complementarities have been integrated to inform the theoretical framework of the present study is clarified below.

In general, the five models can be classified into two main categories (a) models that attempt to define giftedness as a concept that consists of a number of constituents such as Renzulli's Three Rings model and Sternberg's and Zhang's Pentagonal model and (b) models that attempt to define giftedness in light of the developmental nature such as DMGT, Pyramidal and MMG models. With regard to the first category, both models assume that giftedness is a result of an interaction between a set of criteria or components. According to Three-Rings model, giftedness consists of three constituents: above average intellectual ability, task-commitment and creativity, whereas according to the Pentagonal model, giftedness is defined in light of five criteria including: excellence, rarity, productivity, demonstrability and value. Despite the difference in the terms used in presenting the notions of each model, a thoughtful comparison between the two models may reveal a number of consistencies. First, both models use shapes to represent their notions. The Three-Rings model uses three interactive rings shape where each ring represents one of the components of giftedness and the middle-shared part of three rings represents 'giftedness'. This is the most important part of the shape as it is the part where the three components interact and make giftedness. The Pentagonal model uses a pentagonal shape in which each corner represents one criteria of giftedness. The absence of one criterion leads to the absence of giftedness. In addition, despite the difference in the number of

criteria and the terms used by both models, they share in a way or in another similar ideas which ultimately lead to a reasonable understanding of giftedness. For example, the Pentagonal model asserts that for an individual to be labelled as gifted, s/he must or potentially produce something in a specific domain. Though the model does not use the term 'creativity' itself, it can be understood that 'productivity' implies creativity because a gifted person has to excellently demonstrate a rare product in a particular domain. In relation to this, the Three-Rings model emphasises creativity by presenting it explicitly as one core constituent of giftedness. The model also highly considers creativity when it distinguishes between two types of giftedness: school-house and creative-productive. According to the model a real gifted person is the one who is able to come with original thoughts, solutions, materials and products in specific domains (see Section 3.3.1.5).

Although there are many models that tried to define giftedness as a developmental structure, the DMGT, the MMG and the Pyramidal models have been selected because they share some consistencies among them and they add to and complement each other. For example, while the DMGT differentiates between gifts and talents, the MMG and the Pyramidal models use the two terms synonymously. Despite this difference, the MMG's moderators and the Pyramidal model's suns are similar to Gagné's catalysts. The three models assert that the transformation of individual potential into concrete extraordinary performances requires a number of environmental and personal factors. In this regard, the models build on each other by suggesting more ideas in a way that could be seen complementary. For instance, the Pyramidal model is the only model that explicitly considers genes. In a later version of

the model, Piirto (1999) added genes at the base of the pyramid to suggest that gifted people have certain genetic predispositions.

Unlike past scholars (such as Galton, 1869), who argued that giftedness is inherited, the models in Section 3.3 seem to hold a reasonable compromise position, by acknowledging that giftedness is both **natural endowment and learned**. For example, Gagné (2010) referred to the natural endowment as 'natural abilities' and other factors that nurture giftedness as 'catalysts'. Among these catalysts are learning factors which Gagné (2010) considered as the intertwining factor between intrapersonal and environmental catalysts in the talent development process. In the updated version of the Pyramid Model, Piirto (2000) explicitly stressed genes and heredity as a ground level of the pyramid in addition to other internal components (personal attributes and cognitive abilities) which are also thought to be inborn. At the same time, the Pyramid model considered environmental factors (suns) essential for giftedness development, which indicates a nurture view of giftedness as well. The latest version of the MMG by Ziegler and Perth (1997) stressed the influential role of learning by depicting it as triangles across all stages of an individual's life (see Appendix 3.2). Likewise, Renzulli (2005) emphasised the necessity to provide a wide variety of educational opportunities beyond those ordinarily provided through regular instructional programmes to enable the interaction between the three rings to take place which ultimately allows giftedness to manifest.

Another criterion that these discussed models seem to complement each other on is the notion of potential vs. performance. The five models can be classified as **performance models** because they all seem to agree that gifted learners possess

potential (predictors/natural abilities) which need to be converted to extraordinary achievements. For instance, Renzulli's model distinguished between potential and performance. A person can have remarkable potential for mathematics, swimming or piano-playing, but until that potential is manifested in some type of superior performance, we cannot say that this person displays gifted behaviors. The MMG used 'predictors' to describe potential and 'exceptional achievements' to refer to the performance of gifted learners.

There is a general agreement that **high IQ is not necessary** for most manifestations of gifts among children and adult. Beside the intellectual factor, all models valued the significant role of non-intellectual factors such as personality and environmental factors in the development process of giftedness. For example, in the Pyramid Model (see Figure 3.7), cognitive ability is placed in the middle, indicating that it is a part of the whole and a high intelligence score is not the only measure of giftedness. From Renzulli's perspective, gifted individuals might be creative-productively gifted rather than so-called "schoolhouse gifted", so an above-average score is sufficient for an individual to be identified as gifted.

Are people gifted in general or they are only gifted in specific domains? A domain-general understanding of giftedness means that giftedness is perceived as a general potential to develop high competencies across a wide array of domains. However, the discussed models have **a domain-specific view of giftedness** which perceives giftedness as high potential or excellent performance in a specific domain, such as mathematics, science or technology. Piirto (1995) asserted that talents can be either academic or non-academic. Similarly, the MMG and the Pentagonal models stressed

that gifted individuals need to display extraordinary achievement and excellence in one or more domains. Likewise, Gagné (2010) distinguished between gifts and talents in relation to specific domains or fields. Renzulli (1978) assumed that gifted individuals possess two types of abilities, general and specific, and that these abilities are strongly connected.

Chances is another aspect that the models also consider but they regard it differently. Gagné's earlier position of 'chances' was originally as a causal factor associated with environmental catalysts, but in later versions of the DMGT 'chance' is no longer considered as part of the environment catalysts because Gagné believed that though chances play an influential role in a manifestation of a gift, a person has no control over it. Hence, Gagné (2010) created some room for it in the background of the components it influences (see Figure 3.2). On the other side, Piirto (1995) asserted that 'chances' is a casual environmental factor behind the existence of giftedness, so it can be seen as one of the environmental suns in Figure 3.7.

Gender is another component that the selected models regarded differently. For instance, the Pentagonal model emphasised the influence of gender while they were testing their propositions of the Pentagonal theory (see Section 3.3.4.6) in Hong Kong, but the two scholars did not focus on gender when presenting their model. While gender seems not to be highly considered by the MMG and the DMGT models, the Pyramidal model explicitly placed gender as one of the environmental suns along with chance, home, school and community and culture. Reading about gender and how it might influence giftedness has inspired the present study to investigate how participants relate gender to giftedness.

Motivation is regarded by most of the five models, but each model views it differently as well. The Pyramidal model suggests that the main factor behind a remarkably consistent and repeated performance is what Piirto labelled as 'thorn'. When a person is bothered by the state of thorn, s/he finds him/herself engaged in activities related to a specific domain and ultimately s/he becomes committed to that talent. This sounds similar to 'task commitment' in the Three-Rings model which is defined as the ability of gifted individuals to immerse themselves totally in a specific problem or area for an extended period of time. However, Piirto (2000) clarified that the 'thorn' operates as a prior state to task-commitment. In the DMGT, motivation is placed under the intrapersonal catalysts as one of the goal management components (see Figure 3.2). In the Pentagonal model, however, motivation is not given much attention.

Remarkably, **creativity** cuts across the five models which implies the high importance of creativity in understanding giftedness. To form better insights and understanding of creativity, the next section discusses it in depth.

3.3.7 Creativity

Despite extensive research on creativity, there is little consensus on what creativity means, how it is manifested, and how it can be developed. This is because people differ in their understanding of creativity and creative behaviours are valued differently in different contexts (Simonton, 1997; Sternberg & Lubart, 1991). There is a general consensus among psychologists and sociologists that creativity is not a natural phenomenon like a sunset, but it is a culturally constructed concept. Csikszentmihalyi (1996, p.28) defined creativity as *"any act, idea or product that changes an existing domain of knowledge or transforms an existing domain into a new one"*. Sternberg

(2018) referred to creativity as any behaviour that is novel, perhaps surprising, and compelling and he described it as an attitude toward life. According to the author, if a person aims to have a creative idea, s/he should be open to it, and at times, being willing to fight for it. For instance, a person might be creatively intelligent, but in the absence of a creative attitude, the individual is unlikely to be creative in any significant way.

Creativity is highly important at both the individual and societal levels (Sternberg, Jarvin & Grigorenko, 2010). At an individual level, a person needs creativity to solve problems in school, at work and in daily life. At the societal level, new scientific findings, new movements in art and new inventions are results of creativity. As stated by Sternberg et al (2010, p.82) "*the most important contributions to a society are generally made by those who are most creative*". In this regard, Neelands and Choe (2010) noted that creativity manifests itself when it is recognised and valued within specific cultural context. This means an individual can only be described as creative within a particular cultural context which publicly values particular dispositions, practices and outcomes. Besançon (2013) postulated that the values transmitted through the social environment promote or inhibit creativity and this promotion depends on the field and on the culture. In this respect, Csikszentmihalyi (1996) distinguished between two types of creativity: exceptional and ordinary. Exceptional creativity is described as 'cultural creativity', which means an idea or product that becomes part of the culture, whereas ordinary creativity is referred to as 'personal creativity'.

3.3.7.1 Creativity and giftedness

With no doubts, creativity and giftedness are strongly related, though scholars have varied views about the relationship between the two concepts. Some authors view creativity as the highest form of giftedness (Runco & Albert, 1986), while other authors consider it as a basic capacity for any form of high potential. For instance, Renzulli (1986) considered creativity, which includes fluency, flexibility and originality of thought, openness to new experiences, curiosity, risk taking and aesthetic sensibility, as one of the three components of giftedness or high performance. Educators who closely work with gifted learners recognise that creativity is a salient trait and they have to consider creative thinking when working on gifted educational program (Besançon, 2013). A question stands out about whether the creative capacity is a general trait or domain specific. Many authors such as Gardner (1983) support a rather domain-specific modular conception. For example, in the theory of multiple intelligence, Gardner (1983) maintained that people may be creative in each of the intellectual domains (linguistic, logical-mathematical, musical, spatial, kinesthetic, naturalist, intrapersonal and interpersonal) and the nature of the creative intelligence depends on the domain of activity. As exemplified by Besançon (2013, p.151), *“a child may have a high creative capacity in the scientific field (mathematics, sciences) but may have difficulty inventing a story. Another child may be creative in verbal tasks (such as inventing a story) but have difficulties making an original drawing.”* Hence, creative abilities can differ depending on the field.

3.3.7.2 Approaches to understanding creativity

Sternberg et al (2010) reviewed numerous theories and perspectives on creativity and they identified eight main approaches. In an attempt to construct a thorough understanding of creativity, a brief summary of each approach is given. The first

approach is mystical through which the theorists seem to hold mystical views of creative giftedness. They believe that giftedness is a gift from God or divine providence. The problem of this approach, however, is that it does not shed light on nature of creativity, or how to assess it or on how to develop it. Another approach to the study of creativity is a pragmatic approach. The proponents of this approach have been concerned primarily with developing creativity and secondarily with understanding it, but almost not at all with testing the validity of their ideas about it. Sternberg et al (2010) maintained that many of the interventions for gifted children have been based on a pragmatic approach and these interventions have lacked any theory and they have been viewed as things that work, for whatever reason.

The psychodynamic approach is considered one of the first 20th-century approaches to the study of creativity. This approach views creativity as the result of the tension between conscious reality and unconscious drives. Writers and artists produce creative work as a way to express their unconscious desires in a publicly acceptable fashion (Freud, 1959, as cited by Sternberg et al., 2010). Psychometric approach is another approach to the study of creativity and it focuses on the study of the relationship between creativity and intelligence as measured by IQ. The result of studying this relationship led to three basic findings. First, creative people usually show above-average IQs (above 120 as suggested by Renzulli, 1986). The second finding is that above an IQ of 120 does not seem to matter as much to creativity as it does below 120. In other words, creativity may be more highly correlated with IQ below an IQ of 120, but only weakly or not at all correlated with it above an IQ of 120. Studies conducted to support this approach suggested that extremely highly creative people often have high IQs, but not necessarily that people with high IQs tend to be extremely creative. The third finding suggests that the correlation between IQ and creativity is

variable, usually ranging from weak to moderate. In addition, this correlation depends in part on what aspects of creativity and intelligence are being measured, how they are being measured, and in what field the creativity is manifested. For instance, the role of intelligence is different in art and music than in mathematics and science. Another approach to creativity is the cognitive which attempts to construct an understanding of the mental representations and processes underlying creative thought. For example, one would already be studying the bases of creativity by studying perception or memory. Social-personality approach focuses on personality variables, motivational variables, and the sociocultural environment as sources of creativity. Researchers such as Amabile (1983) others noted that often creative people are characterised by certain personality traits such as independence of judgment, self-confidence, attraction to complexity, aesthetic orientation, openness to experience, and risk taking. In relation to this, Maslow (1968) postulated that boldness, courage, freedom, spontaneity, self-acceptance, and other traits may lead a person to realise his or her full potential.

The evolutionary approach was initiated by Donald Campbell (1960), who suggested that the same kinds of mechanisms that have been applied to the study of the evolution of organisms could be applied to the evolution of ideas. This idea was picked up by many researchers and one of the biggest advocates was Dean Simonton who proposed two basic stages in the generation and propagation of creative ideas: blind variation and selective retention. According to Simonton (1996) at the *blind variation*, creators do not have the slightest idea as to which of their ideas will succeed. Therefore, their best bet for producing lasting ideas is to go for a large quantity of ideas. They are driven by the belief that the more ideas they have in all, the more ideas they have that will achieve success. Then, in the second step, *selective*

retention, the creator works either retains the idea for the future or lets it die out. The creative ideas are the ones that are selectively retained and are judged to be novel and valuable. Finally, the confluence approach to the study of creativity hypothesises that multiple components must converge for creativity to occur. For example, Feldman, Csikszentmihalyi and Gardner (1994) suggested a systematic approach for understanding creativity which involved the interaction of the individual, domain, and field. According to their approach, a person draws upon information in a domain and transforms or extends it by cognitive processes, personality traits, and motivation. Sternberg's and Lubart's (1991) investment theory of creativity is another example of the confluence approach as it assumes that creative performance results from a confluence of six elements including intellectual processes, knowledge, intellectual style, personality, motivation, and environmental context. The investment theory also states that creative people are ones who are willing and able to buy low and sell high in the realm of ideas. Buying low means pursuing ideas that are unknown or out of favor but that have growth potential. Therefore, often, when these ideas are first presented, they encounter resistance. Yet, the creative individual persists in the face of this resistance, and eventually sells high, moving on to the next new or unpopular idea.

To sum up, this section aimed to analyse and critique a number of models of giftedness which provided an overall guidance for this thesis. The fact that these models differed in their emphasis and focus indicates that giftedness is more than a psychological construct. It is a multidimensional construct that involves other constructs such as motivation, intelligence and creativity that are defined, measured and valued differently. The variation among these models may explain why there is no dominant conception of giftedness at the theoretical level (Reis & Renzulli, 2009). This

will be more evident in the next section which will explore various conceptions of giftedness revealed by the empirical studies conducted in different contexts and cultures.

3.4 Previous studies on teachers' ITG

A great number of previous studies on teachers' ITG revealed that although teachers' ITG may differ across cultures, there are some similar views which teachers tend to hold. In light of this, this section looks at how teachers in various contexts and cultures describe their ITG.

3.4.1 Multidimensionality of giftedness

Most studies that investigated teachers' ITG have reported a multidimensional view of the construct. For example, Lee (1999) interviewed 16 early childhood teachers in the Queensland University of Technology in Australia, to examine a variety of conceptions of giftedness. Analysis of the patterns and inconsistencies among teachers' conceptions revealed that giftedness is perceived as a concept that has a variety of dimensions including: excellence, potential, rarity, behavior, innate ability, motivation and asynchrony. In addition, Lee (1999) reported that teachers seem to acknowledge the role of environment in shaping giftedness. Moreover, the study revealed a clear and fundamental similarities between Gagné's DMGT and the conception held by teachers with regard to genetic roles in giftedness. Gagné (1991) noted that in times past, giftedness was judged to be a gift from God, but nowadays, the source of this endowment is more properly recognised as genetic in nature. Lee (1999) found out that the perception of divinely-endowed giftedness is not a thing of "times past" but is indeed a current conception, held by some teachers.

Consistent with these findings, Jaffri (2012) explored the conceptions of 1178 Malaysian pre-service and in-service primary school teachers. The findings revealed that 82% of pre-service and 75% of in-service teachers agreed with the notion of God-given gifts. During the semi-structured interviews, most interviewees stated that giftedness is inborn, but they were not sure if it is inherited from parents, which suggests that giftedness is viewed as God's blessing and not necessarily inherited from biological parents. This seems to accord with Gagné's (1991) claim regarding the current prevailing view of the role of genetic nature in conceptualising giftedness. Jaffri (2012) also reported that more than 50% of the participants agreed with the notion that parents' education background correlates with the cognitive ability of gifted children. This means environmental factors are perceived as a significant factor in defining giftedness by Malaysian teachers. The findings of Laine's et al's (2016) qualitative study of Finnish Elementary teachers, showed that teachers view giftedness as more than only high IQ because it was described by cognitive, creative and motivational features of the gifted. Laine et al. (2016) noted that this finding of multidimensional aspects of giftedness implies a positive message about Finnish teachers' conceptions which should be considered when the education of the gifted is planned and differentiation is implemented in the classrooms.

With regard to the present study, exploring Omani teachers' ITG can also give a message about the way these teachers view gifted learners if their theories reflect a multidimensionality view that inevitably influences their attitudes towards these learners and ultimately affects their classroom practices. However, if their ITG indicate a unidimensional view, this may indicate something different in the way Omani teachers perceive giftedness and this in turn may affect the ways they deal with this

group of learners. This message should encourage the MOE's policy-makers and practitioners in the area of gifted education to rethink how to update Omani teachers' ITG and knowledge concerning giftedness and gifted learners.

3.4.2 Specific rather than general

A prevailing view of giftedness among teachers is to view giftedness as specific rather than general. In Lee's (1999) study, teachers seem to hold a view that for a child to be labelled as gifted, s/he needs to display excellence in one or more areas (specialist excellence). Although some teachers pointed to an overall ability to excel (excellence across all curriculum), the majority of teachers stated that to be 'truly gifted' is to be wonderful at sport or music or drama plus maths, science, English, history and everything across the whole board. Similarly, Finnish teachers in Laine's et al's (2016) study seemed to perceive giftedness as more domain-specific than domain general. Jaffri's (2012) participants also, to some extent, linked excellent ability or abilities with performance in a certain domain such as mathematics and science.

3.4.3 Malleable ability of giftedness

Most studies that have been conducted to explore teachers' beliefs of malleability of giftedness tended to support the notion that giftedness is a developmental construct (Reis & Renzulli, 2009). Kärkkäinen (2011) and Kärkkäinen and Rätty (2010) examined Finnish teachers' beliefs of the malleability of a learner's academic achievement. The findings revealed that teachers' beliefs tend to follow a self-attribution pattern; that is to say, if a learner thinks s/he is doing well at school, then teachers tend to believe that this child's competences are stable as though the child's potentials are close to maximum. However, if the child considers herself/himself doing poorly, teachers are willing to perceive him/her as being capable of improvement. These findings reflect that Finnish teachers' beliefs might not support the development of high-achieving

learners. In turn, this might imply that those gifted learners who manifest outstanding achievements might not be treated in a malleable way in which hard work, problem-solving activities and challenging tasks are encouraged and valued. However, these implications do not accord with Laine's et al's (2016) quantitative study of a sample of 463 teachers (N=463) which aimed to examine whether Finnish teachers view giftedness as a malleable or fixed concept. It was found that a malleable view of giftedness dominates Finnish teachers, as 54% supported the malleable (developmental) view of giftedness. However, drawing generalisations based upon the results of Laine's et al's (2016) study is questionable due to limitations related to the sample, the context and methodologies.

3.4.4 Intellectual traits and giftedness

Empirical evidence in the findings of a number of studies on teachers' conceptions of giftedness (Alamer, 2010; AlFahaid, 2002; Baudson & Preckel, 2013; Busse, Dahme, Wagner, & Wiczerkowski, 1986; Copenhaver & Mc Intyre, 1992; Endepohls-Ulpe & Ruf, 2006; Hernández-Torrano, Prieto, Ferrándiz, Bermejo, & Sáinz, 2013; Moon & Brighton, 2008) indicated that intellectual traits are still highly valued by teachers. For instance, Busse et al (1986) attempted to compare the perceptions of American and German teachers with regard to characteristics of gifted children through asking teachers to respond to a long list of traits which cover various areas of giftedness. The results revealed significant agreement among teachers of both countries with respect to intellectual abilities such as intelligence, quick intellectual grasp, curiosity and reading interests. Jaffri (2012) reported that more than half the participants from both groups of pre-service and in-service teachers agreed on the notion that gifted individuals have IQ test scores of more than 140. In line with these results, by using the experimental vignette approach to investigate teachers' views, Baudson and

Preckel (2016) found out that a student's intellectual ability is the strongest predictor of ratings on the four specified dimensions (intelligence, motivation, prosocial, maladjusted).

Similarly, Moon and Brighton (2008) conducted a survey study on 434 American public primary teachers to explore the beliefs and attitudes of these teachers concerning the manifestation of gifted potential in primary school age students. It was found that the vast majority of teachers tend to hold traditional conceptions of giftedness by describing a gifted learner as one who possesses strong reasoning skills, a general storehouse of knowledge and high linguistic skills including a strong vocabulary. In addition, strong early reading skills, the ability to work independently, a high level of motivation and persistence are among the characteristics associated with giftedness. The surveyed teachers attributed these observable behaviours and characteristics to either strong parents/home support or innate ability. In Spain, Hernández-Torrano et al (2013) attempted to analyse the characteristics that lead Spanish teachers to nominate students for gifted programmes. Without giving any guidelines or predetermined characteristics about gifted students, teachers in 52 schools across 15 school districts in the region of Murcia were invited to nominate students (7th to 10th graders) who would qualify to join an extracurricular gifted programme. Results showed that Spanish teachers tend to relate giftedness to high scores in the field of intelligence and factors related to academic subjects rather than variables in the field of arts. These results are consistent with Endepohls-Ulpe's and Ruf's (2006) study of 384 teachers from randomly chosen German primary schools which revealed that German teachers perceive giftedness mainly through cognitive characteristics as well as motivational characteristics, whereas social behaviours were rarely mentioned.

Most frequently mentioned cognitive traits included intellectual grasp, processing capacity, good memory, good results at schools and logical reasoning. The fact that teachers in both studies have positively perceived cognitive traits as components of giftedness could be explained by the fact that the majority of these traits are usually associated with academic success. It was found that when teachers are asked to describe the potential of gifted children, they tend to pay more attention to traits related to intellectuality or scholastic environment than personal traits (Endepohls-Ulpe & Ruf, 2006). Like the western views, AlFahaid (2002) and Alamer (2010) found out that Saudi teachers in both studies emphasised intellectual features such as superior general intellectual potential and ability, asking perceptive questions, possessing outstanding abilities as well as having great task commitment. Moreover, Saudi teachers also highly acknowledged memorisation and critical thinking. Alamer (2010) explained that perceiving memorisation as an important characteristic is not surprising because this ability is not only valued in schools but in Saudi society as a whole. Coming from a similar cultural back-ground, I do understand why memorisation is valued as one of the most outstanding abilities of giftedness. In Islamic societies, individuals who can memorise whole or parts of the Holy Quran and Hadith (Prophet Mohammed's sayings, Peace be upon him,) are greatly valued. Hence, it is not surprising that teachers associate such an ability with giftedness.

3.4.5 Social and personality traits

Studies on teachers' conceptions pertaining to giftedness revealed that social and personality traits are a debatable feature among teachers. For instance, in Hernández-Torrano's et al's (2013) study, features such as emotional management, the ability to relate to others and optimism seem to be highly valued by Spanish teachers when considering a student as gifted. These findings indicate that secondary Spanish

teachers tend to nominate students with positive behaviours rather than students with disruptive behaviours. However, Baudson and Preckel (2013) noted that when talking about the social and personality dimension of giftedness, two contradictory stereotypes seem to exist: the harmony and disharmony hypotheses. The former assumes that gifted students exhibit superior intellectual abilities are socially competent and better at adapting to new circumstances. In contrast, the disharmony hypothesis states that while it is true that gifted learners possess high intellectual abilities, they are socially awkward and emotionally unstable. In light of these two stereotypes, Baudson and Preckel (2013) investigated the beliefs of 321 prospective and practising German teachers by using a German so-called Big Five personality questionnaire; a five-factor personality inventory for children. Findings showed that students who are described as gifted were rated as more open to new experience, but more introverted, less emotionally stable and less agreeable. Therefore, Baudson and Preckel (2013) concluded that teachers' implicit personality theories about the gifted are in line with the disharmony hypothesis rather than the harmony one. Similar findings were also reflected by Baudson and Preckel (2016) as they found that gifted learners are rated as less prosocial and more maladjusted compared with average students.

With regard to personality attributes, key gifted education authors do not confine personality attributes to positive ones. For example, Piirto's Pyramidal model included both positive and negative attributes (see Figure 3.7). Csikszentmihalyi et al. (1993) and Simonton (1994) also listed aggressiveness and stubbornness among attributes that are present in most highly outstanding people. In line with this, a review analysis of hundreds of articles on gifted and talented children by Neihart, Reis, Robinson, and

Moon (2002) concluded that gifted individuals “... exhibit an almost unlimited range of personal characteristics in temperament, risk-taking and conservatism, introversion and extraversion, reticence and flamboyance, and effort invested in reaching goals. No standard pattern of talent exists among gifted individuals.” (p.1).

Jafri (2012) surveyed participants to see if they think gifted learners are cognitively, emotionally and socially well-balanced. Participants' responses were varied although the percentages of agreement and disagreement were quite similar. In Endepohls-Ulpe and Ruf (2006), negative behavioral characteristics formed a part of the participants' image of a gifted child. Endepohls-Ulpe and Ruf (2006) explained that the contradictory results concerning social and personal behaviours as criteria of giftedness might be due to the methods used for data collection (open-ended question vs rating scales). For example, when analysing free descriptions of gifted children using open-ended questions, negative or extremely positive aspects of social and personal behaviour stand out as central elements of the participants' conceptions of giftedness. On the other hand, when analysing rating scale descriptions, social behaviour was of no importance. In this respect, Hernández-Torrano et al. (2013) also questioned the influence of their data collection method on their obtained results by asking teachers to nominate students for gifted programmes without any predetermined checklist. The researchers then wondered what if these teachers had been provided with guidelines for the identification, would the results of their identification have then been different? Thinking about Omani teachers who have never or hardly ever received any pre-service or INSET programmes on gifted education, I wonder to what extent personality traits and social behaviours will be considered if they are asked to nominate a student for a special programme without

any guidance. Similarly, when thinking about collecting the data from teachers for this study, if these teachers are asked to express their ITG without me being there to guide them, will their ITG include personality and social aspects?

Contradictory views regarding social and personality traits have been expressed even within studies of the same context. For instance, Saudi teachers in ALFahaid's (2002) study, described gifted children as being bored or easily distracted and socially-maladjusted. In contrast, Alamer (2010) found out that Saudi teachers seem to be uncomfortable associating negative characteristics such as talkativeness, persistence and rejecting rules with giftedness. Given the fact that I belong to a similar context, this view is understandable, and can be explained by the inseparability of religion and culture in most Arab and Islamic countries which strongly influences people's lives and beliefs. For instance, with regard to the trait of talkativeness, in Arab culture talkative people are not appreciated. This is reflected in many well-known proverbs that reject the trait of talkativeness, such as '*the best talk is brief and meaningful*'. Concerning persistence and rejecting rules, these two traits are disliked in Arab and Islamic countries as well because they are very likely to hinder the unity and strength of the group. Group unity is an Islamic principle that is strongly emphasised.

3.4.6 Creativity and giftedness

Creativity has also been valued by teachers as a characteristic of giftedness in many studies. Copenhaver and McIntyre (1992) asked eighty-five elementary and secondary teachers to complete an open-ended questionnaire on their perceptions of gifted learners. The majority of teachers listed creativity as a characteristic of giftedness. Similarly, in the focus group interviews with the Saudi teachers and parents in Alamer's (2010) study, creativity was mentioned as one of the gifted children's

characteristics. Jaffri (2012) reported that more than half the participants (58% of pre-service and 59% of in-service teachers) agreed that gifted individuals are creative. However, despite the consensus on perceiving creativity as a component of giftedness, creativity as a construct varies from one culture to another which in turn has led to another issue. The findings of many studies implied that in some cultures, particular behaviours that are regarded as indicators of creativity may not be accepted as such in other cultures. Consequently, gifted students who display such behaviours are disregarded by their teachers when decisions are made on giftedness. For example, Rudowicz and Yue (2000) found out that while some characteristics, such as humor and aesthetic appreciation are commonly associated with creativity in the Western contexts, the same characteristics are rated as undesirable in Chinese conceptions of creativity. Al Jughaiman and Mower-Reynolds (2005) reported that those Saudi teachers who have internalised inaccurate concepts concerning creativity tend to experience conflicts with creative students in their classrooms. Hence, in some cultures, creative students may often be viewed as disruptive and disobedient, so they may not be regarded positively by their teachers (Westby & Dawson, 1995).

3.4.7 Family's economic status

Many studies that explored teachers' ITG (such as Jaffri, 2012; Lee, 1999; Moon & Brighton, 2008; Peterson & Margolin, 1997) have reported that teachers consider environmental factors when defining a gifted learner. One of the most largely influential environmental factors that was pointed out by a large body research is the economic status of a child's family. For example, in Moon's and Brighton's (2008) study, more than one third of the participants indicated that the potential for academic giftedness is not present in all economic groups in their society. This finding led them to argue that holding such a belief seriously disadvantages young students in poverty from

being considered for gifted programmes and services. In the same vein, Peterson and Margolin (1997) asked classroom teachers from two middle schools in a Midwestern community minority (the teachers were Anglo-American but were teaching a sizable Latino) to nominate students for a temporary programme for the 'gifted'. Teachers were not given any guidelines for nomination, yet during the discussions, teachers claimed that they used culturally dominant criteria such as excellence, talent and ability as a guide in assessing students' giftedness. Peterson and Margolin (1997) found out that Latino students and students from other minority groups were passed over and not selected. These findings suggest that teachers believe that some degree of wealth is a necessary condition in order for academic giftedness to be manifested and recognised. Peterson and Margolin (1997) supported their conclusion by statistics from *National Excellence* published in 1993, which showed that only 9% of students participating in programmes for the talented and gifted were in the bottom quartile of family income as compared with 47% in the top quartile. A possible reason for this inequity could be due to the fact that gifted students who are tired, poorly nourished, or distracted by family circumstances might not participate enough in classroom activities. For this reason, they cannot be recognised and recommended (Peterson & Margolin, 1997). Given the fact that a family's economic status can largely influence teachers' criteria of giftedness in western contexts, I wonder if Omani teachers do consider this aspect of a student's life when thinking about who is gifted. In this vein, however, I have to note that exploring the influence of the family's economic status is not as easy as it is in western contexts. This is because administratively, Omani society does not have that same classification system. The schools might have a record of students whose families qualify for government benefits, but teachers might not be aware of the economic situations of all students they teach. Yet, because of the

exploratory nature of the present study which investigates teachers' ITG and not relating these theories to specific students, it is still worth questioning teachers about their views regarding the role of the economic status of a student's family in relation to giftedness.

3.4.8 Gender and giftedness

Students' gender is found to crucially contribute to teachers' ITG. Hernández-Torrano et al. (2013) reported that seven percent more boys were nominated as gifted than girls. Findings also indicated that teachers tend to nominate males with higher abilities in cognitive areas such as verbal, numerical and mechanical reasoning, whereas females are nominated more on artistic abilities (such as bodily-kineasthic and musical) as well as emotional dimensions. Similarly, in Baudson's and Preckel's (2016) study which used case vignettes, gifted and average-ability boys were rated as more intelligent than gifted and average-ability girls. Sternberg's and Zhang's (1998) attempts to test the Pentagonal Theory in the USA and Hong Kong contexts indicated a considerable overlap between teachers' ITG in America and in Hong Kong with regard to the five criteria (refer to Section 3.3.4). The one difference that stood out, however, was that of gender. Participants in Hong Kong believed that excellence is more important for boys than for girls. The authors attributed this finding to certain sociocultural trends in China where women are traditionally viewed as inferior to men. A similar gender difference was also reflected by Alamer's (2010) study which revealed inconsistency among Saudi teachers in associating leadership abilities with males but not with females. While male teachers perceived leadership only in males, female teachers believed that both gifted boys and girls can have such a trait. Alamer (2010) attributed this conservative interpretation of leadership as a male quality within Saudi society to the nature of Saudi culture concerning its beliefs about women's

participation in social activities. In this vein, Siegle and Reis (1998) contended that these gender differences might be in part related to findings that teachers tend to attribute boys' success more to innate abilities and girls' school achievements more to effort.

To conclude, the above section examined teachers' ITG across various cultural contexts. This examination has shown that teachers largely agree on the importance of cognitive traits as a component of giftedness along with personality and social traits as well. However, it was found that some traits are inconsistently interpreted by teachers in different cultures, such as creativity. Another interesting point is that gender and economic status are perceived as important factors that contribute to the formation of teachers' ITG. These findings have illuminated this thesis to see to what extent Omani teachers consider such variables when thinking about giftedness. As said previously, understanding teachers' ITG is critical to any development of programmes and practices that address gifted and talented learners. Therefore, after constructing a general understanding about teachers' ITG in different contexts, the next section attempts to focus on the most common educational practices that occur within the field of gifted education to serve the needs of gifted learners.

3.5 Gifted education practices

Cohen and Ambrose (1993) depicted the relationship between theories, research and educational practices metaphorically by saying that *"the pearls of practice and the gems of research are crafted together by the golden links of theories"* (p.348). Through this metaphor, the authors are stressing the interactive link between theories and educational practices. Thus, the theories of giftedness should inform and provide guidelines for gifted education practices and successful educational practices should

contribute to theory-building. When talking about gifted education practices, there is a reasonable level of consensus among researchers of the field on the main elements of a programme designed to meet gifted learners' needs (Cohen & Ambrose, 1993; Davis & Rimm, 2004; Van Tassel-Baska & Stambaugh, 2005; Tomlinson, 2009). Tomlinson (2009) maintained that when developing gifted programmes, educators need to consider the following principles:

- The philosophy and the goals of the programmes should be interrelated and they both stem from the school's mission statement.
- A wide range of school personnel should be involved when designing gifted programmes as this will provide broad input into the programme's operation, which, in turn, will ensure the growth and success of those students identified as gifted.
- Regular classroom elements are central to the gifted programming. The regular classroom curriculum should be developed to be used as a catalyst for identifying and addressing the gifted learners' potential.
- Collaboration and communication between the programme and other key elements in schools is very important, so that information can be easily exchanged.
- The identification process should align with the school's mission, the nature of the school population, the programmes's philosophy and goals.
- The curriculum of the programme should be stimulating and challenging.
- There should be an articulated scope and sequence of content, process, and product goals for the identified gifted learners. This can be used to guide the learning experiences of these learners in both regular classrooms and specialised settings.

- Having indicators or rubrics is important to guide teachers and students in moving progressively towards expertise in student's talent area.
- Staff professional development should train teachers to recognise, develop and extend challenge.
- Continuous and regular evaluation of the programme through summative and formative evaluation to inform the programme's content and process and ultimately to maximise students' benefits.
- Sharing the evaluation outcomes with a wider range of stakeholders, so their input will be considered in the programme's decisions.

In line with Tomlinson (2009), Davis and Rimm (2004) also identified four major components to planning any gifted learner programmes including (1) programme philosophy and goals, (2) definition and identification process, (3) instruction and students and (4) programme evaluation. These components of gifted programme planning might not be viewed the same in all countries because of the variation in the policy and definition of giftedness that are adopted by the educational system in each country. Nonetheless, there is a reasonable agreement among gifted education specialists to consider these elements in any programme designed to address gifted learners' potential.

Nearly a decade has passed since the gifted education unit was established in the MOE in Oman, but gifted education practices are still very limited. Despite the interest of the Omani government in providing gifted learners with special educational opportunities, no special programmes have been developed yet within the MOE to achieve this aim. Alternatively, Omani teachers are highly encouraged to differentiate their teaching and modify the curriculum to meet the needs of students of different

abilities including gifted learners. In Chapter Two, an overview was given about the common existing practices in Omani context and some remarks and observations were drawn. This section attempts to give a brief overview of gifted education forms of practices in other contexts focusing on differentiation practices, its potentials and challenges.

3.5.1 Grouping

Reis and Renzulli (2010) distinguished between two types of grouping: tracking and instructional. Tracking is defined as the permanent placement of students into a class that is often remedial or advanced in nature with little chance of entrance or exit over the years. In contrast, most instructional groupings designed for academically talented students enable flexible movement in and out of grouping patterns. In relation to this, Rogers (2002) identified six grouping options that have been found effective in serving gifted and talented students including:

- Full-time placement in an enriched or accelerated programme
- Regrouping for an enriched instruction in a specific subject
- Cross-grade grouping for specific subjects
- Pull-out grouping for enrichment
- Cluster grouping with a mixed-ability classroom
- Cluster grouping within an ability classroom

3.5.2 Specialised schools

One of the common grouping forms is pulling out students from regular schools and placing them in specialised schools. A well-known example of such schools is Science, Technology, Engineering and Math Schools (STEM) in America which started in the early 1900s. STEM schools aimed to serve students who display high abilities and interests in Science, Technology, Engineering and Math (Thomas & Williams, 2009).

According to the authors, the specialised STEM schools were not originally established to enhance the skills and interests of gifted and talented students but rather to prepare a workforce with specific technical skills. Later and in response to the recommendations of educators of gifted and talented students, more schools were established (Thomas & William, 2009). Examples of these schools are the Oklahoma School of Science and Mathematics, the Illinois Mathematics and Science Academy and the Carol Martin Gatton Academy. In the UK, the King's Maths Schools can be mentioned as an example as it targets students with a particular aptitude and enthusiasm for Mathematics and it aims at widening students' participation in mathematical degrees and careers in future (<https://www.kingsmathsschool.com>). Another example of special schools is Päivölä Boarding School in Finland which is fully funded by Nokia, the largest information technology company in Finland (Tirri & Kuusisto, 2013). According to Tirri and Kuusisto (2013), the school selects 20 students who are mathematically talented 15- to 18-year-olds who graduate from upper secondary school in 2 years instead of the average of 3 years. Päivölä School provides a tailored curriculum that emphasises Mathematics and Natural Sciences; other subjects are taught at the Valkeakoski upper secondary school. The students are mentored to pinpoint their talents, enhance their strengths, plan their future, and build networks inside and outside Nokia.

The idea of educating students of high abilities in special schools sounds interesting but thinking about the problems associated with student identification systems to nominate students for such schools raises questions regarding who is eligible to join. In addition, such schools require high financial funding, which makes them politically vulnerable in case of economic crisis (Cohen & Ambrose, 1993). Oman, for example,

is among the GCCC that are heavily dependent on oil to fund its national budgets. In 2016, government spending was highly reduced due to the oil crisis. Consequently, the budget of the MOE was cut to such an extent that the MOE was forced to give up many projects and training programmes. In 2020, Oman also reduced the allocated budgets for ministries and government units in response to the coronavirus and the drop-in oil prices. In addition, considering the geographical nature of Oman, if the notion of a special school is applied, it is most likely to be in Muscat, the capital city. This means, beside the school's basic needs, students' accommodation, transport and other logistic services need to be provided. Unless the MOE decides to open school branches in the eleven governorates, though opening branches there will require an even higher budget, which I do not think the MOE can afford.

3.5.3 Distance or online learning

Although empirical studies on the effectiveness of distance learning with gifted learners are limited, the available findings indicate promising outcomes (Wallace, 2009). Wilson, Little, Colman and Gallagher (1997) carried out a project involving high school students at the North Carolina School of Science and Math. During the project, gifted students throughout the state were provided with advanced classes through interactive videos. In evaluating the programme, many students said that while they still preferred to have the teacher in the room, they learned greatly, and their time was well spent. Wallace (2009) conducted a study of 690 students, who were involved in an online course run by the University of John Hopkins Centre for Talented Youth, to explore the effectiveness of distance learning for gifted students of different age groups. About 94 % students lived in America, while the remainder were from 16 other countries. Findings indicated that distance education can be an effective approach to

accelerate and enrich educational opportunities available to gifted learners across all ages from KG to 12.

Bearing in mind the existing situation of gifted education in Oman, the scarcity of empirical studies on the use of online learning for gifted learners is not surprising. However, findings of studies conducted to examine teachers' perceptions concerning the effectiveness of online learning can be used as an indicator of the possibility of applying e-learning as a means to support gifted learners in the near future. Most local studies revealed that while e-learning is highly valued as being as effective as face-to-face instruction in terms of students' achievement, teachers, in many instances, do not use it and sometimes resist the implementation of technology (Al-Senaidi, Lin, & Poirot, 2009; Al Anqoudi, 2009; Al Rawahi & Al-Mekhlafi, 2015; Osman & Ahmed, 2003). Al-Senaidi et al. (2009) attributed such resistance to many reasons: poorly designed software, technophobia, doubts that technology helps in achieving learning objectives and fear of redundancy. Al Rawahi and Al-Mekhlafi (2015) conducted a small exploratory study on 13 MOE Omani teachers, supervisors and trainers to ask them about their opinions and experiences with online collaborative projects. The findings parallel the findings of an earlier study by Al Anqoudi (2009) which showed that although Omani teachers believe in the usefulness of online collaborative projects for students and teachers, they usually fail to set up such projects due to several challenges. Among these challenges are teachers' lack of awareness of the usefulness of online projects, insufficient support provided to teachers from administrators during the implementation of these projects, a heavy workload and limited computer labs and internet access facilities in schools.

3.5.4 Acceleration

One specific educational practice in gifted education is academic acceleration. There are different forms for academic acceleration including early entrance, grade-skipping, subject matter advancement, advanced placement testing and concurrent high school/college enrolment (Hoogeveen, van Hell, & Verhoeven, 2012; Southern & Jones, 1992). Although the literature on acceleration demonstrates positive academic attainment to gifted students, educational practitioners usually resist allowing students to take this option (Vialle, Ashton, Carlon, & Rankin, 2001). Studies carried out in America, Europe and Australia reflected this pattern of support for acceleration in research, but resistance for it in practice (Hoogeveen et al., 2012; Southern & Jones, 1992; Vialle et al., 2001). Hoogeveen et al. (2012) conducted a survey study to investigate the attitudes of 334 Dutch secondary teachers of acceleration and accelerated students. About 77% of the teachers considered acceleration in primary school often or always a useful option. Teachers' attitudes about the motivation and achievement of accelerated students was less negative. However, the teachers appeared to be most concerned with the isolation of accelerated students and also seemed a bit worried about the social competence and the development of emotional problems. Teachers' opinions about the accelerated students' social adjustment and motivation was explained by teachers' experience with accelerated students. That is to say, as the amount of experience with accelerated students increased, teachers tended to express fewer positive attitudes about student's social competence, school motivation and achievement. They also had more negative opinions about the students' emotional problems and social isolation. With respect to Oman, acceleration

has not been regulated and the MOE does not support acceleration as an option for gifted students.

3.5.5 Differentiation

Differentiation of curriculum to meet students' differing learning rates, styles, interests and abilities is considered an extremely critical strategy, especially in meeting the needs of gifted learners (Archambault, Westberg, Brown, Hallmark, Emmons, & Zhang, 1993; VanTassel-Baska & Stambaugh, 2005). Within the philosophy of differentiation, gifted learners are perceived as a diverse group whose needs cannot be met with a single gifted curriculum. Therefore, differentiating learning experiences for gifted students does not only include providing challenges considered beneficial for gifted students, but also curricular and instructional modifications geared towards individual student's needs. During differentiation experiences for gifted learners, teachers focus on thinking skills, abstract concepts, advanced level of content and a blending of content, process and product to enable gifted students to deal with the content, ideas, problems or themes in a greater breadth and depth than through the regular curriculum.

Realising the effectiveness and the benefits of differentiation in meeting the needs of gifted learners, Hertberg-Davis (2009) noted that many schools across America decided to eliminate or cut back on more traditional programmes in favour of curriculum differentiation and instruction in regular classrooms. Hertberg-Davis (2009) also contended that differentiation of regular classroom instruction is the perfect solution for issues that have stood as barriers in front of gifted education. Moreover, Hertberg-Davis (2009) opined that classroom differentiation is less expensive compared to special programmes because differentiating instruction in the regular

classroom does not cost any more than teaching a one-size fits all curriculum. In fact, I do not agree with Hertberg-Davis's (2009) claim because if a teacher really wants to implement well-planned differentiated lessons for different abilities in a regular classroom, this will require more resources and stationary materials compared to a one-size fits all curriculum. Let us imagine a Science teacher who has to carry out an experiment to test chemical interactions. If this teacher plans to vary this task according to diverse levels, s/he will need more chemicals and more appliances. In addition, effective differentiation requires a teacher to seek resources beyond the prescribed curriculum, such as higher level readings, advanced resources suitable for age-appropriate and community personnel willing to act as a content mentor for a period of time (VanTassel-Baska & Stambaugh, 2005). Thus, while it is true that differentiation might cost less than special programmes in purely financial terms, it is very demanding for the teacher and also requires sufficient funding.

Generally speaking, teachers are aware that regular classroom differentiation is beneficial in serving classroom diversity. Nevertheless, substantial empirical evidence has consistently revealed that little differentiation is occurring for gifted students in regular classrooms due to several barriers. First, teachers often find it difficult to meet students' needs in a high-stakes testing culture where pressure is placed more on passing standardised tests (Archambault Jr et al., 1993; Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005; Hertberg-Davis, 2009; Westberg & Daoust, 2003). Brighton et al (2005) stated that high-stakes testing has made regular classrooms even less beneficial to gifted students because teachers try to use the majority of time and resources on test preparation at the expense of other strategies and approaches. Similar concerns were also indicated by Westberg's and Daoust's (2003) study which

covered a sample of 1,366 third and fourth grade teachers. The teachers seemed to believe that the best methods to prepare students are by simulating testing experiences in the classroom and emphasising traditional techniques such as repetition, worksheets and drill skills. VanTassel-Baska and Stambaugh (2005) referred to this situation as a fear within the accountability system. VanTassel-Baska and Stambaugh (2005) argued that if teachers/educators really acknowledge the diverse needs of learners, then testing should not be an obstacle, but it should urge them to utilise differentiation as a means to meet these needs. The researchers supported their argument by the findings of a study on compacting the curriculum by Reis, Westberg, Kulikowich, and Purcell (1998) , which suggested that gifted learners do not score significantly lower on standardised tests when they were studying a compact curriculum (as cited in VanTassel-Baska & Stambaugh, 2005).

Second, many teachers resist differentiation because they lack time for planning as it requires longer to design a well-planned differentiated lesson or unit. Moreover, it is not enough to plan individually when attempting to address gifted learners' needs. Teachers need to coordinate with teachers of higher grades, so they can appropriately accelerate the content. Likewise, teachers of the same grade levels need to meet and discuss how the curriculum can be modified to support gifted learners. Yet, many studies revealed that teachers' meetings at schools are used for other school work and instructional planning is not the focus of these meetings (DuFour & Eaker, 1998; as cited in VanTassel-Baska & Stambaugh, 2005).

Third, research revealed that in heterogeneous classrooms where teachers claim that they do differentiate, gifted students are not often included due to misunderstandings

about this instructional practices among teachers (Hertberg-Davis, 2009). Archambault Jr et al (1993) found that highly able students in regular classrooms receive little differentiation in instructional and curricular practices from teachers. Consistent with this, Westberg and Daoust (2004) pointed out that during differentiation, teachers tend to concentrate more on weak or slow learners because they believe that gifted students can cope, and they do not need differentiation. Similarly, Hertberg-Davis (2009) noted that many teachers believe that differentiation is a form of scaffolding for struggling learners rather than a strategy of meeting the needs of learners of all levels. In this vein, through my career as an English teacher trainer, which involved observing actual lessons, I have noticed that differentiation is seen as primarily a group work strategy and fun choices. Some teachers tend to use gifted students as anchors in group work, so the work can be done quickly. Some teachers even tend to get gifted learners to help teaching other struggling learners. I wonder how such practices are claimed to be forms of differentiation. Differentiation principles stress that differentiation should create challenging opportunities for the gifted learners, so what kind of challenges can be made through such practices? This also might raise a question related to the sources of such ideas: where do these misunderstandings and misuses of differentiation come from?

Fourth, Hertberg-Davis (2009) postulated that these misuses of differentiation are a result of a lack of teachers' sustained training in the specific philosophy and methods of differentiation and a lack of their general knowledge concerning the nature of giftedness and gifted learners. He contended that most teachers expected to differentiate, receive little training and support; there may be a single day workshop or a whole school workshop. Such forms of training, however, cannot guarantee that

teachers' ways of conceiving teaching and learning will change; nor can they alter teachers' beliefs about which students they should address. In this vein, studies have shown that even with constant training on differentiation, teachers still do not differentiate or even misuse this approach practices.

To sum up, differentiation of instruction in the regular classroom is critical to address the needs of those students who are already identified as gifted and it also unlocks the talents of other students. However, I still believe that it functions best as a component in a spectrum of services provided to gifted learners. As we saw above, there are common misunderstandings and frequent misuses of differentiation among teachers. Although most of the studies mentioned above investigated teachers' practices in western countries, as a teacher trainer whose part of my responsibilities is to attend classroom lessons, I have hunches that the same scenarios occur in Omani classrooms as well. Current realities of Omani government schools such as large class sizes, limited resource materials, lack of planning time, lack of structures in place to allow collaboration with colleagues, and ever-increasing numbers of teacher responsibilities indicate that the process of differentiating regular classroom instruction is even more daunting. This is not to say that regular classroom differentiation does not work at all, but we cannot guarantee that it is being done properly due to the highlighted challenges associated with it.

3.6 Summary of the Chapter

Maxwell (1996) defined a conceptual framework as a system that consists of concepts, assumptions, ideas and theories that inform a researcher's investigation. Through this comprehensive definition, Maxwell (1996) depicted a conceptual framework as a visual display or a picture of what a researcher thinks is currently going on with the

phenomena s/he is studying. In line with this, Berman (2013) viewed a conceptual framework as 'a road map' that guides the researcher throughout the whole process of the study. It usually begins with the key concepts, the theoretical framework underpinning the professional context of the study, the study themes and questions, the methodological implementations of the study, the results and analysis, and finally, the theoretical and practical findings of the research.

As for the present study, it aims to explore the Oman teachers' ITG and the existing gifted education practices at cycle two Omani government schools and the challenges encountering it. Accordingly, this chapter has focused on two main concepts: namely, the conceptions and the implicit theories of giftedness and gifted education practices with the embedded challenges facing each form of practice. To emphasise the strong relationship and interaction between the two concepts, I used a cog shape, as shown in Figure 3.9. This shape stresses the idea that implicit theories, beliefs and conceptions that people in a particular society hold about giftedness are inseparable from the implemented gifted practices. It is widely agreed that the way in which giftedness is defined in a context has consequences on the whole of gifted education including the identification procedures, programme offerings, and its ultimate success overall (Sternberg & Davidson, 1986; Renzulli, 1986; Lee, 1999; Philipson & McCann, 2007; Schroth & Helfer, 2009; Siegle et al, 2010; Tirri & Kuusisto, 2013). Thus, Omani teachers' ITG and gifted education practices are supposed to interact in a manner that fosters the enhancement of gifted education Omani context.

The giftedness models which were discussed in Section 3.3 have deeply informed the study. Although the five discussed models differ in how they defined giftedness, they

all emphasise the multi-dimensional view that perceives giftedness as being more than high intelligence. In addition, analysis of the five models raises a number of questions in order to understand the construct of giftedness. These questions were, therefore, largely utilised in designing the guide of the focus group interview (see Appendix 4.5A).

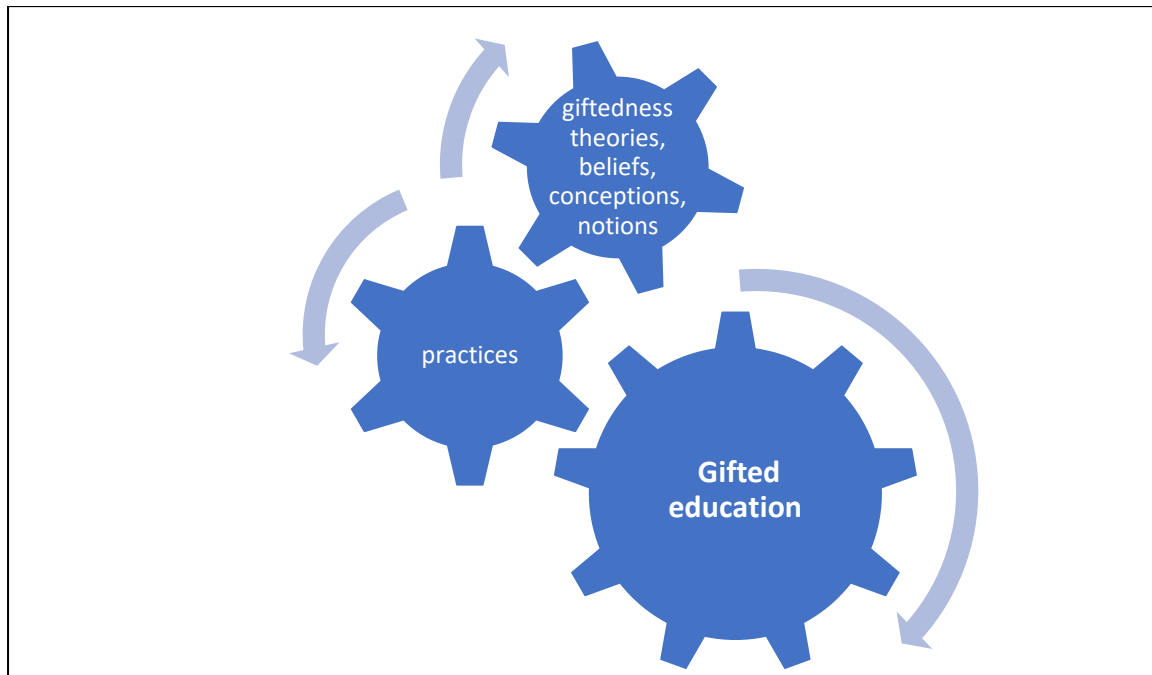


Figure 3.9 Constructs of the study

The framework of the present study was also informed through examining the construct of giftedness in other cultural contexts. The study advocates the notion of most giftedness scholars (Sternberg & Davidson, 1986; Philipson & McCann, 2007; Kaufman & Sternberg, 2008; Lawrence, 2009; Neihart & Toe, 2013) who stressed the role of culture and contexts in shaping beliefs and values about giftedness and talent development. Accordingly, this section urged me to examine how cultural values and Islamic principles contribute to shaping Omani teachers' ITG. In addition, it interestingly showed more ingredients that may contribute to teachers' ITG not explicitly discussed in Section 3.3, such as gender and family economic status. Thus,

these findings have inspired the guide of the teachers' interviews to see how gender and family economic status are considered by Omani teachers when thinking about giftedness.

The last construct discussed in the chapter was common practices of gifted education being implemented around the world. Through this section I attempted to inform myself as a novice researcher in the field of gifted education and to inform the study with the common practices and the associated challenges behind each form of gifted education practices. The obtained insights and thoughts are used in the guide of the focus group interviews for schools' administrators which is mainly devised to investigate the existing practices in the four school cases.

Chapter Four: Methodology

Introduction

The main aim of the present study is to identify Omani teachers' ITG and the existing practices relating to gifted education within cycle two government schools in the Sultanate of Oman. In particular, the study considers three main issues: (1) the ITG from the side of Omani teachers, explored in terms of the meaning of giftedness, the characteristics of gifted and talented learners and the perceptions of the developmental nature of giftedness; (2) the existing practices of gifted education in Omani government schools; and (3) the challenges encountering gifted education at these schools.

This chapter describes the methodology adopted to undertake the study. It firstly discusses the philosophical assumptions that have informed the study. This is followed by the research design adopted to conduct the study. Then, the methods (metaphorical analysis, focus group interviews) used to generate the data are presented in terms of giving a theoretical overview of each method followed by the implementation procedures. Then, the data generating process and data analysis are outlined. This is followed by a discussion of the data quality and the ethical considerations of the study. Finally, the chapter concludes by highlighting the limitations of the study with respect to its scope and design.

4.1 Philosophical assumptions

The question of which paradigm a researcher can adopt for his/her study has always been a subject for debate. Guba and Lincoln (1994) asserted that a researcher must

select the paradigm that best relates to the topic under investigation. It seems that the interpretive paradigm closely matches the philosophical assumptions of the current study for several reasons. Ontologically, interpretive research cannot accept the idea of being a reality out there which exists irrespective of people because reality is seen as a construct of the human mind (Bassey, 1999). Thus, the ultimate goal of such research is understanding a phenomenon through getting inside the people involved and understanding it from within (Cohen, Manion & Morrison, 2011) rather than making generalisations about a whole population. Moreover, interpretivists adopt relativistic ontological view where a single phenomenon can have multiple interpretations (Creswell, 2007). It is based on the notion that no fixed knowledge can be obtained; all realities can be accepted (Willis, Nilaknta & Jost, 2007). Therefore, an interpretive researcher attempts to *“look for complexity of views rather than narrow the meanings into a few categories or ideas”* (Creswell, 2007, p. 20).

Epistemologically, interpretivists believe that reality is socially negotiated and constructed through interaction with others and the best way to study and understand a phenomenon is through the eyes of people in their lived experience (Andrade, 2009; Creswell, 2007; Weaver & Olson, 2006; Willis et al., 2007). Thus, interpretivists maintain that the construction of social reality is based on people’s definitions of it and is obtained only through social constructions such as language, consciousness, shared meanings, documents, tools and other artifacts (Andrade, 2009). In this vein, Radnor (2002) asserted that people perceive social reality in different ways, so their actions and decisions are influenced by their interpretations of their reality. Hence, the task of the interpretive researchers is *“to make sense of their world, to understand it,*

to see what meaning is imbued in that situation by the people who are part of it' (p. 21).

From the above, it is apparent that interpretive researchers do not recognise the existence of an objective world, but rather they view the world as being strongly bound within a particular time and specific context (Andrade, 2009). It is not possible to generate objective descriptions of realities because these are always coloured by historical, cultural, ideological and linguistic understandings (Creswell, 2007; Sandberg, 2005). In this regard, Pring (2000) asserted that in interpretive studies, value-free knowledge (objective epistemology) is impossible because a researcher is affected by his/her personal opinions, attitudes and values.

4.1.1 The role of an interpretive researcher

Unlike positivists, in the interpretive research process the researcher is given a more active role as s/he is seen as an integral part of the social reality being researched and they cannot detach themselves from the subject they are studying (Andrade, 2009; Creswell, 2007; Willis et al., 2007). The investigator and the investigated are viewed as interactively linked in the creation of findings and the researcher is viewed as the vehicle by which social reality is revealed (Denzin & Lincoln, 2000). This is because the researcher needs to keep in touch with the participants in their own settings in order to understand their views and definitions of the phenomenon, so they act as the main data collector. Added to that, the researcher's interpretations play a key role in making meaning of the collected data, so s/he is regarded as the meaning-creator.

Interpretive researchers do not often start with theories, rather they aim to generate theories or develop patterns of meanings throughout the research process (Creswell, 2007). To interpretive researchers, the purpose of research is not generalisations, but their purpose is to advance knowledge through describing and interpreting the phenomena in an attempt to find shared meanings with others (Bassey, 1999). Through these interpretations, a researcher seeks deep perspectives on particular events and theoretical insights.

4.1.2 Paradigm of the present study

The present study is grounded in the interpretive paradigm for many reasons. Firstly, the main aim of the present study is to find out what theories, beliefs and conceptions Omani teachers hold pertaining to giftedness and identify existing practices at their schools and then find out what challenges Omani government schools encounter pertaining to gifted education. Therefore, it can be argued that understanding the existing conceptualisations of giftedness and exploring the actual practices at schools meet the ontological assumption of interpretive research. To put it simply, an interpretivist often tends to believe in the existence of multiple realities and it is believed that participants (teachers and administrators) create, modify and interpret their social world differently based on their subjective experience. Secondly, the present study is underpinned by a relativistic nature of the social world because it assumes that the participants will reveal diverse realities of giftedness and gifted education practices because these realities are always coloured by historical, cultural, ideological and linguistic understandings (Creswell, 2007; Sandberg, 2005). Thirdly, the ultimate goal of the study is not to test a hypothesis, nor to discover laws and nor to generalise. Rather, it aims to construct a deeper understanding and to provide explanations and interpretations about the phenomenon under study as it is perceived

by the participants. Fourthly, epistemologically the present study believes in the assumption that in order to get an understanding and to construct subjective knowledge about giftedness and its practices in Omani government schools, social interaction with people involved in this field is a key method. This suggests the necessity of establishing a dialogue (focus group interview and metaphor sharing) between myself as a researcher and all the participants involved. Such a social and inter-subjective interaction will hopefully lead to an in-depth and well-informed understanding of the studied phenomenon (Silverman, 2004). These interactions are guided by ethical codes which Radnor (2002) regarded as an important principle of interpretative research. Fifthly, interpretivists assume that a researcher's background, attitudes, values and experiences are vital in making sense of reality (Creswell, 2007). This suggests that it is impossible for me, as a researcher, to detach myself from the present study. In this respect, it is important to reflect that in this study I position myself as a semi-insider researcher because while it is true that I am not a member staff of the investigated schools, my job as a teacher trainer in the MOE will inevitably have an influence on the research process. My prior teaching experiences, my current training background and relationships will unavoidably influence the study, whether positively or negatively. This influence will be reported and made transparent throughout the study by adopting a reflexive role. After clarifying the philosophical stance of this study, the research design will be demonstrated in the following section.

4.2 Study design

The study design a researcher adopts serves as a theoretical underpinning for the study and is closely connected to the research questions, the topic of the study and the participants s/he plans to include in the study (Lichtman, 2013). Therefore, the

research design should be appropriately developed in a way that helps to answer the research questions. Yin (2014) describes a research design as:

A logical plan for getting from here to there, where here may be defined as the initial set of questions to be answered, and there is some set of conclusions (answers) about these questions. Between there and here may be found a number of major steps, including the collection and analysis of relevant data.
(p.28)

4.2.1 Case study design

A case study is a detailed and in-depth examination of a particular case or several cases and it is applied when the researcher seeks to provide rich and detailed insights of a particular phenomenon in its natural setting (Lichtman, 2013; Stake, 1995; Yin, 2014). This in-depth examination of the case is done through collecting detailed information using a variety of data-collection methods over a sustained period of time (Creswell, 2014). However, when choosing case study as a design, a researcher needs to consider at least two main steps: defining the case and bounding the case. A case or unit might be as small as one individual or as large as an entire school or a particular programme. To reduce ambiguity and confusion in defining the case, Yin (2014) recommended that a researcher needs to define the research questions as these questions might point to the case. In addition, defining the case also requires the researcher to place boundaries or limits around what will and will not be studied in the scope of the research project and who to include and who to exclude as well.

As for the present study, it aims to find out: (1) what ITG Omani teachers working in cycle two Omani government schools hold and how they have constructed these theories, (2) what current practices are available with regard to gifted education at these schools and (3) what challenges gifted education is facing in these schools. These questions cannot be answered without considering the setting, the schools, and

more specifically cycle two government schools (Grades 5-9). This is because it is in these settings where the major parts of teachers' ITG are developed and where most gifted educational practices take place. Therefore, it would have been impossible to obtain an in-depth understanding of the investigated phenomenon without considering the context in which it occurs (Baxter & Jack, 2008). However, it would be unreasonable for me to look at all cycle two schools across Oman (amounting to 278 schools, according to the annual educational statistical book 2018/2019). Subsequently, selecting a number of schools to work with as the cases for this study can still help to address the aims and study questions and make the study manageable and achievable.

4.2.2 Multiple case design

Yin (2014) noted that evidence from multiple cases is more compelling and more robust than from a single case. Accordingly, the present study adopted the multiple case design by selecting four school cases based on the assumption that a multiple case design (as named by Yin) or a collective case design (as named by Stake) will allow me to examine several cases (schools), so that I can obtain a range of in-depth insights into the central issues of investigation. In addition, the multiple case design will enable me to analyse and compare within each school and across schools (Baxter & Jack, 2008).

As with the number of cases to include in a single study, Creswell (2007) stressed that a single study should not include more than four or five case studies, as this number should provide ample opportunity to identify the themes of the cases as well as conduct cross-case themes analysis. The selection of the cases whether for single or multiple case design has been extensively discussed by key researchers (such as

Stake, 1995; Bassey, 1999; Yin, 2014). They suggested different categorisations of which cases are selected when adopting a case study design. For instance, Stake (1995) distinguished between intrinsic and instrumental case studies. According to the author, an intrinsic type is used if the researcher is interested in a particular case for its own sake irrespective of outside concerns. On the other hand, an instrumental case is used when a researcher refers to particular cases not because of his/her interest in these cases, but because focusing on them may give him/her insights to understand other cases. Such a way of selecting cases is used when the aim is to provide insight into an issue or help to refine a theory. This means that the selected cases are of secondary interest, play a supportive role and facilitate understanding of another matter/ issue. Yet, the selected cases are often looked at in-depth and their contexts are investigated in detail. These cases may or may not be seen as typical of other cases (Stake, 1995). Bassey (1999) referred to instrumental cases as theory-seeking cases and Yin (2014) named them exploratory cases.

Guided by the overall exploratory purpose of this study, four schools in Batinah North governorate were selected as instrumental cases for this study. These four schools were not selected because they are special, but because they are typical cycle two government schools chosen purposefully to gain insights and a deeper understanding of gifted education in cycle two Omani government schools. However, when selecting the school cases, I tried to include schools from different locations within Batinah North governorate to see how the school's location influences participants' responses. Table 4.1 gives an overview of the four school cases under study:

School A (Grades1-9): is located in a very populated area near the coast and is the furthest from the BNGED. Though the study intended to investigate only cycle two female government schools, I was surprised to find out that there are lower grades 1-4 studying at this school as well. However, thinking about the overall aims of the study, I decided to continue the investigation at this school. The school is partially mixed in gender as students from grades 1-4 are boys and girls, whereas higher grades from five to nine are all females. The administrative and teaching staff are all females and there are about 800 students, 80 teachers and 17 administrators.

School B (Grades5-9): is also located in a very populated area and is the nearest to the BNGED. The school is fully females as students, teachers and administrators are all females. There are about 56 teachers, 11 administrators and 727 students at this school.

School F (Grades1-9): is located in a very populated area as well, but it is the nearest to the Industrial Port and Free Zone Corporate area. It is partially mixed in gender because it includes grades from 1-9, so grades 1-4 are mixed and grades 5-9 are only girls. The administrative and teaching staff is all females. There are about 776 students, 69 teachers and 10 administrators at the school.

School D (Grades1-12): is a mountainous rural school, located about more than 35 kilometers from the centre of Batinah North governorate. Like most remote schools, co-education is applied at the D School because there are small numbers of people living in these areas and therefore the number of the schools is limited. Thus, students, teaching and administrative staff are all mixed gender. There are about 550 students, 65 teachers and 9 administrators at the school.

Table 4.1

An Overview of the Four School Cases

School case	Location	Grades	Mixed or not (gender)	Staff M/F	No of Teachers	No of administrators	No of Students
A	Furthest from the BNGED	1-9	1-4 Mixed	Female	80	17	800
B	Nearest to the BNGED	5-9	Not Mixed	Female	56	11	727
F	Industrial area	1-9	1-4 Mixed	Female	69	10	776
D	Mountainous rural	1-12	Mixed	Male & Female	65	9	550

In sum, the above section has discussed the use of the case study as an overall design for this study. This type of design is becoming more prevalent, but it requires extensive resources and effort (Yin, 2014). In order to gain an in-depth understanding, detailed multiple sources of information are utilised, namely teachers' metaphorical images of gifted learners, focus group interviews with teachers and administrators of the four

school cases. The following section explores in more detail the theoretical backgrounds and implementation of these methods.

4.3 Research methods

The primary aim of interpretive qualitative studies is to obtain a better understanding of a phenomenon by digging deeper into the experiences of those who have directly experienced it. In this sense, qualitative studies fully acknowledge the participants' unique viewpoints that can only be completely understood within the context of their experience and world view. Therefore, the value of qualitative research to empirical studies is that it generates a richer, deeper understanding of the meanings that people place on actions, events, and relationships (Castleberry & Nolen, 2018; Bengtsson, 2016). To fulfil these aims, the current study has utilised two main methods: metaphorical analysis and focus group interviewing. Table 4.2 gives a summary of the data-collection method and the research question it answers:

Table 4.2

A Summary of Research Questions and Methods

RQ	Investigated area	Method	Comments
RQ1	Teachers' metaphors of a gifted learner	Metaphor analysis	Before Teachers' focus group interviews
RQ2	Teachers' Implicit Theories of Giftedness (ITG)	Teachers' focus group interviews	The same teachers involved

RQ3	Sources of teachers' ITG	Teachers' focus group interviews	in the metaphor activity
RQ4	The existing gifted education practices	Teachers' focus group interviews & Administrators' focus group interviews	
RQ5	The challenges facing gifted education	Teachers' focus group interviews & Administrators' focus group interviews	

4.3.1 Metaphors

A metaphor is defined as a word-based image, a figure of speech in which one thing is represented as being another thing which it is asserted to resemble (Gould, 1996). Ortony (1993, as cited in Mahlios & Maxson, 1998) defined metaphors as those analogic devices that lie under the surface of a person's awareness. According to Ortony, metaphors serve as cognitive devices for learning new information, concepts and skills and they are used as a mean for framing and defining experience in order to achieve meaning about one's life. These definitions suggest that metaphors can be used as a means to communicate personal ideas, beliefs and understanding (Hamilton, 2016; Sam, 1999). Lakoff and Johnson (1980, as cited in Sam, 1999) stated

that we as human beings tend to use metaphors to conceptualise, represent and communicate many of our thoughts and actions. In line with this, Kasoutas and Malamitsa, (2009) added that people use metaphors mainly for three reasons: (a) to express their ideas and beliefs that cannot be fully expressed through literal language (b) to capture the complexity and multiplicity of experiences and ideas and (c) to communicate ideas more effectively and vividly than through the use of literal language. Munby (1986) emphasised the powerful link between metaphors and the construction of reality. Realising the powerful ability of metaphors in disclosing people's hidden thoughts, views and theories concerning a specific topic, I found myself attracted to the idea of using metaphors in my study. I believe that devising metaphors enabled me to gain a better insight and multidimensional understanding of Omani teachers' implicit theories, views, feelings, and their experiences related to giftedness and gifted learners.

4.3.1.1 Metaphors and teachers' thinking

Within the field of education, there has been a growing interest in considering educational ideas and phenomena by relating them to concrete things (metaphors) which were previously understood and experienced (Botha, 2009; Hamilton, 2016; Mahlios & Maxson, 1998). Munby (1986, p. 197) maintained that "*the study of teachers' metaphors is a compelling alternative to the conventional and formalistic approach to the study of teacher cognition*". That is evident in the increasing number of recent studies using metaphors to explore teachers' thinking about different educational issues (such as Buchanan, 2015; DeLeon-Carillo, 2007; Hamilton, 2016; Mahlios & Maxson, 1998; Kasoutas & Malamitsa, 2009; Sam, 1999; Shaw & Mahlios, 2008; Olthouse, 2014). Due to the paucity of gifted education studies which have employed metaphors as a method, for the purpose of clarification the discussion within

this section will be drawn upon literature as to how metaphors have been used to study and uncover teachers' thinking and beliefs about teaching and learning in general.

In teacher education, metaphors have been extensively used for reforming teaching practices, rethinking teacher roles and discovering different assumptions about knowledge which influence teachers' teaching and learning (Kasoutas & Malamitsa, 2009). For example, during many in-service and prospective teachers' education programmes, teacher educators usually try to find out what ideas and beliefs teachers bring with them about pupils and classrooms and how their thoughts about themselves as teachers relate to pupils, curriculum and teaching. The use of metaphors can give insights about how these teachers think and act during teaching and how they interpret the experience of teaching (Hamilton, 2016; Mahlios & Maxson, 1998). Through this information, teacher educators can direct or redirect teachers' learning. For instance, Buchanan (2015) tried to capture Australian primary prospective teachers' metaphors of teachers through hand-drawn images. The researcher coded each metaphor's alignment with teacher-centred or learner-centred pedagogy. Buchanan (2015) reported that many metaphors created by the participants indicated teacher-centred perceptions of teachers. Another example of metaphors study is by Shaw and Mahlios (2008), who examined prospective teachers' metaphors used to describe teaching. The generated metaphors included gardening, golf, marathon, guiding and lighting a candle. The concrete images revealed by this study and others have been associated with conceptual categories to include teachers as a cooperative leader, knowledge provider, challenger, nurturer, innovator, trainer, entertainer and change agent. These findings suggest that employing metaphor analysis in teacher education coursework may positively help prospective teachers' abilities to frame and more deeply

understand their own ideas about various educational issues. Moreover, through connecting teachers' metaphors and the corresponding ideas and understanding of educational topics (such as teaching and schooling), researchers and teacher educators can obtain access to a multidimensional understanding of the perceptions these teachers hold. Based on this, actions can be taken to direct and redirect teachers' beliefs (Hamilton, 2016).

An important dimension that should be considered when exploring teachers' personal theories and beliefs through metaphor generation is to find out the source of associating the investigated concept with specific metaphors. A study conducted by DeLeon-Carillo (2007) of 125 Filipino prospective teachers discussed the ways in which participants selected, drew and wrote about metaphors that connected to what a teacher is. Their drawings and explanations associated teachers with metaphors such as bulbs, books, fountains and cabinets. The researcher stated that the metaphorical images generated by the participants appeared to connect back closely to their earlier personal educational experiences, as well as traditional orientations of family and culture. In this vein, Kasoutas's and Malamitsa's (2009) study of 156 in-service teachers attempted to explore the factors that influence Greek teachers' choice of metaphors concerning teaching and learning. The results revealed that teachers' metaphors are strongly related to teachers' personal beliefs, aesthetics as well as experiences. These results revealed how current culture and actuality in Greece have an impact on teachers' thinking about teaching and learning.

The third research question examines the sources of the implicit theories of a gifted learner held by Omani teachers. Therefore, starting this study by investigating

teachers' metaphorical thinking about a gifted learner can work as a starting point for answering this question. By digging deeper into how teachers constructed their metaphorical images pertaining to gifted learners and by associating these images with certain theories related to giftedness might help me in identifying the origins of these implicit theories. It could originate with their previous learning experience with someone whom they think was gifted or it could be their cultural view of a certain animal or object that is viewed as being distinguished.

As mentioned earlier there has been a growing body of literature on the use of teachers' metaphorical images in in-service and prospective teachers' education programmes to understand how these teachers conceptualise themselves as teachers and how they conceptualise their pupils and their classroom. Despite the potential role of metaphors in unveiling salient aspects of a construct and their ability to reflect multiple conceptual associations, teachers' metaphors of a content area have rarely been explored (Shaw & Mahlios, 2008; Olthouse, 2014). Within the field of gifted education, metaphorical images have been devised by researchers such as Borland (2005) and Tolan (1997) to depict their understanding of giftedness and gifted learners. For instance, Borland (2005) used a chimera metaphor to present his image of 'who is a gifted learner?'. Through this metaphor, the researcher wanted to explain how difficult the concept of a gifted learner is when no one can agree on who a gifted learner is. Tolan (1997) used a cheetah metaphor to express his image of gifted learners as a breed apart but they, like cheetahs, are endangered because of achievement-oriented thinking about gifted learners. Tolan (1997, p. 2) stated that:

The child who does well in school, gets good grades, wins awards, and performs beyond the norms for his or her age, is considered talented. The child who does not, no matter what his innate intellectual capacities or

developmental level, is less and less likely to be identified, less and less likely to be served.

Through the cheetah metaphor, Tolan wanted to say that gifted children are endangered. Like cheetahs, gifted learners are born with distinct traits and abilities and although these traits might be ignored, true giftedness cannot be eradicated. Zoos, regardless of their limitations, are doing their best to provide cheetahs with what they need to survive. Likewise, schools should do their best to offer what will help gifted learners' talents to manifest and eventually survive.

4.3.1.2 Metaphors in the present study

It is important to highlight here that some purposes of the present study have been shaped by the decision to use metaphors as a data-collection method. Because of this, some of the purposes are substantive and others are methodological. With regard to methodological purposes, my literature review has revealed a number of empirical studies conducted in different cultural contexts to examine teachers' ITG, but very rare studies employed metaphors as a tool to understand in-service teachers' ITG. Therefore, examining Omani teachers' metaphorical images of gifted learners in the present study is hoped to contribute to the methodology of gifted education research globally and locally. At the local level, this study might be the first to employ metaphor analysis as a tool for collecting data from Omani teachers for research purposes. Therefore, in addition to finding out what metaphors Omani teachers may associate to giftedness, the study also tested how this method works with Omani teachers and so represents a distinctive feature of this study.

In respect of substantive purposes, metaphors serve as cognitive devices to elicit new information, insights, understanding and concepts about the topic under study. Based on the metaphors teachers revealed, I initially attempted to (a) describe the patterns that exist among them to describe their sense of a gifted learner and (b) identify the similarities and differences that occur among metaphors generated by teachers. The second purpose was that insights and ideas obtained by the metaphorical analysis were used for further development and to refine the questions in the teachers' interview guides.

4.3.1.3 Difficulties when working with metaphors

There are three common problems associated with metaphor analysis when used in research: (a) too many possible interpretations, (b) some responses are too ambiguous and abstract to be interpreted and (c) one metaphor can be interpreted differently by different researchers (Kasoutas & Malamitsa, 2009; Sam, 1999). Olthouse (2014) also pointed to the difficulty of differentiating between a participant's original metaphor and the researcher's interpretation of the metaphor. In the present study, the problem of ambiguity in teachers' metaphors was minimised through employing multimodality. To explain this more fully, teachers' metaphorical images of a gifted learner were expressed and clarified through the use of various modes: (a) visual representation, (b) written descriptions and (c) digging into the metaphors during teachers' focus group interviews.

Another difficulty associated with the use of metaphors in research is the fact that conceptual metaphors are not merely generated by the interviewee, but they could have been inherited from the community s/he lives in. A person's metaphors could be a reflection of the culture to which they belong because cultures embed a changing repertoire of favoured metaphors which reflect particular principles and aesthetics

(Kasoutas & Malamitsa, 2009). Therefore, it is not surprising to find that people belonging to the same culture tend to use specific metaphors. Consequently, as Kasoutas and Malamitsa (2009) contended that theories constructed from metaphors cannot ever be combined to form a consistent global theory, but, rather, they can add to the local theories. This is compatible with the philosophical assumptions of the present study which assumes that teachers' ITG vary across cultures and countries. Therefore, it was not surprising to find that the results unveiled similarities among the generated metaphors because the investigated teachers belong to the same cultural context. Such influences are not considered as drawbacks to this study, but rather as a factor that serves its overall goals.

4.3.1.4 Piloting the metaphor activity

The activity was piloted first with a group of three Omani Ph.D. students of whom 2 are educators in the MOE and then the actual piloting was with a group of five cycle two female teachers. The first piloting took place at my flat in Exeter and the second was at a cycle two school. Both groups were previously informed about the purpose of the meetings and they were introduced to the activity by using the plan outlined in Appendix 4.1. However, instead of showing the teacher's metaphor (a teacher as a gardener) on a PowerPoint slide, the image was presented to participants orally with the help of A4 paper (See Appendix 4.2).

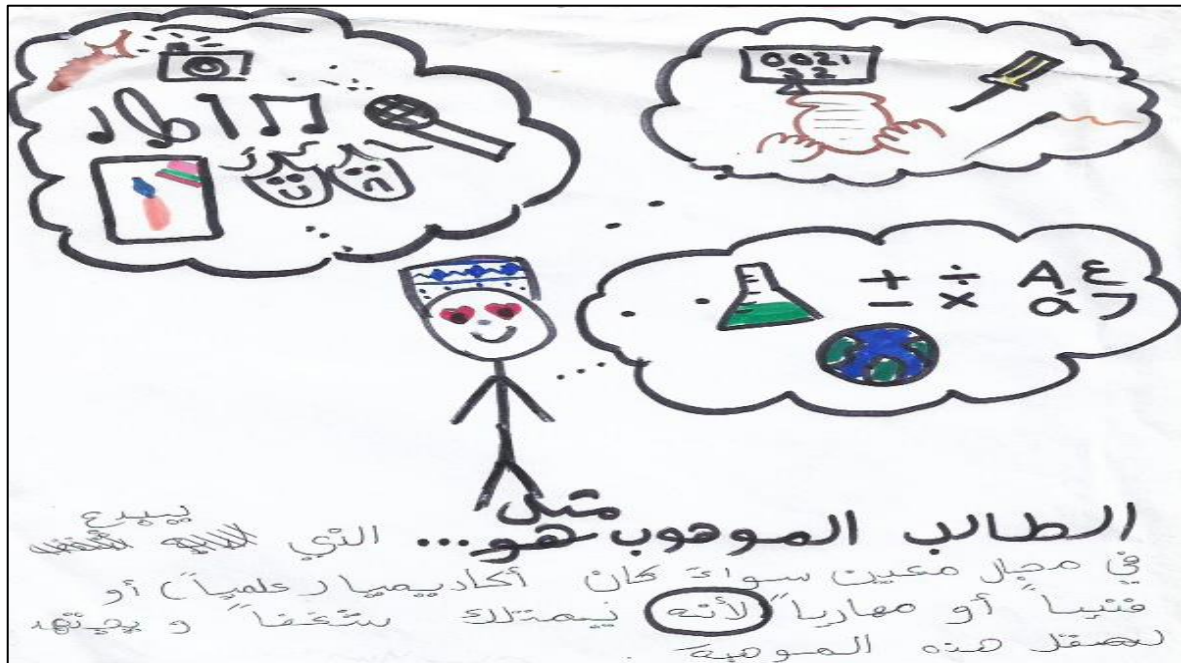


Figure 4.1. The metaphorical image of the first piloting group

For the first piloting group, although the participants showed understanding of the activity and they seemed very enthusiastic about what they were supposed to do, the outcome of the activity was not as expected. As shown in Figure 4.1, instead of giving a metaphorical image of what they think ‘a gifted learner’ is like, participants presented their definitions of what a gifted learner is; this is not what this activity was aiming for. From the very beginning I realised that misunderstanding, but the participants were urged to complete the activity to see how the interaction developed between the group members and to discover what was wrong with my instructions. When they finished doing the activity, I told them that was not what I was looking for and that they seemed to misunderstand the task. Based on their experience of doing this activity, the participants were invited to think of the possible reasons for their misunderstanding and how the pre-activity instructions could be improved to achieve a better implementation that can guarantee the achievement of the actual purpose of the activity. The participants suggested the following:

- Using a special activity form instead of a blank sheet.
- Extending the time of the metaphor activity from 30 minutes to at least 40 minutes and for this time to include the setting up of the activity.
- The misunderstanding was mainly attributed to the absence of a metaphorical device such as 'like' or 'as'. The participants said that they did not think of a metaphorical image because the statement in the activity form (see Appendix 4.3, Part Two) does not include a metaphorical device that tells them to give an image not a definition. It is important to highlight that I am aware of the linguistic difference between metaphors and similes, in that a metaphor does not require the use of a device such as 'like', whereas a simile is usually given by using such devices. Therefore, for the purpose of eliciting images from the teachers and to reduce confusion, I included the Arabic word 'mithel=like or 'ka'=as in the statement in the refined activity form (Appendix 4.4).
- Participants did not like the idea of putting a word limit in the description of the metaphor (see Part Two in Appendix 4.3), as they felt that a word limit may restrict their thinking, or it may negatively affect their desire to write. Based on their suggestion, the word limit was removed from the final version of the metaphor activity form (see Part 2 in Appendix 4.4) and participants were invited to write as much as they liked.
- The biggest controversial point was whether to use a teacher metaphor or a gifted learner metaphor (see Appendix 4.2) when defining and explaining the concept of metaphor. Participants in the piloting activity felt that if a gifted learner metaphor was used during the set up for the activity that would have eradicated the confusion. Therefore, to ensure full understanding it was decided to use both images with the second piloting group and see how they

gifted learner. They also completed Part Two properly in the activity form in which they stated a gifted learner is like 'Conan' for several reasons.

4.3.1.5 Main metaphor activity

The initial plan was to give participants a sheet of paper and encourage them to generate their metaphors spontaneously by completing a statement which says, 'a gifted learner is like...'. However, because the idea of metaphorical thinking is new to Omani teachers, it was decided that it would be best if the teachers were instructed on what a metaphor is by conducting a 30-minute induction meeting prior to the implementation of the metaphor activity. This meeting was successfully held with four subject teacher groups (English, maths, science and IT) at the B School because at the time I visited the school, students had just started their mid-semester leave and the teachers had no teaching duties. However, it was difficult to hold this meeting in the other three school cases because by the time I visited them, students had been back to school and it was very difficult to get all the four subject teacher groups together at the same time. Even getting teachers of the same subject together was not possible because teachers had lessons and other school duties; it was impossible to get them all at one place at the same time. Thus, it was decided that teacher participants would be instructed on what metaphorical thinking is and the nature of their participation during the actual process of the metaphor activity. The meeting for conducting the metaphor activity was arranged in coordination with the senior teachers at each school case (maths, science, English and IT). To make this meeting even friendlier, the room was organised and supplied with refreshments. Overall, this meeting aimed to:

- Instruct teachers on how metaphorical images can be used to express implicit theories pertaining to any topic and how this tool would be used with them to unveil their implicit theories pertaining to a gifted learner and giftedness.
- Inform participants more about the study and obtain their formal written consent.
- Do the metaphor activity.
- Strengthen the relationship with the participants who would also be needed for further interviews.

As a core task, teachers were asked to generate their metaphorical images of a gifted learner according to the four subject groups. The reviewed form (Appendix 4.4) was used in which subject groups were asked to complete the statement '*a gifted learner is like ...*' and then present their metaphorical images visually. The groups were given the freedom to present their metaphors in any form they liked: drawings, photos, sketches, mind-maps or diagrams. As a final part of this activity, participants were required to entitle their metaphorical images and produce a short-written description in which they described their image and their reasons for choosing that image. With most groups this activity took between 40 to 45 minutes from start to finish.

4.3.2 Interview

Qualitative interviewing is defined as a powerful and flexible tool to capture the voices and the ways people view a particular phenomenon and make meaning of certain experiences (Rabionet, 2011). Cohen et al. (2011) noted that interviews can be employed in research to serve four main purposes:

- (a) The primary method for collecting the data
- (b) The primary method to examine hypotheses or to generate new ones

- (c) An explanatory tool to identify variables and relationships
- (d) A complementary or supplementary tool to other methods in a research study

Considering the exploratory nature and the research questions of the present study, interviews are employed for two purposes: (a) as complementary or supplementary methods alongside the metaphors and (b) as the primary method. With respect to the former purpose, the use of interviews as a complementary tool aims to follow up the results revealed by other methods (metaphors) and to dig deeper into the participants' given answers and their reasons for responding in that way. With regard to the second purpose, interviews are conducted as a primary method to answer questions that were not targeted through the metaphor analysis. The present study employed a special type of qualitative interviewing known as a focus group interview, which is recently has become very popular among education and social sciences researchers (Dilshad & Latif, 2013; Punch, 2009). The rationale behind using focus group interviews is driven by Brinkmann's and Kvale's (2015) position, which says that focus group interviews are well situated for exploratory studies in a new domain because the lively interaction may bring forth more spontaneous expressive and emotional views than in an individual interview and this is congruent with the aims of this study. When focus group interviewing is used, there are a common set of elements that need to be considered. The following section will attempt to discuss these elements in relation to the present study.

4.3.2.1 Focus group interviews

A focus group interview is basically a group interview compromised of a number of individuals with certain characteristics who focus the discussion on a given issue or topic of interest to the researcher (Cohen et al., 2011; Dilshad & Latif, 2013; Lichtman,

2013; Morgan, 1996). Cohen et al. (2011) pointed out that a focus group is a form of group interviewing, but in group interviewing the reliance is more on the group interaction when discussing a topic supplied by a researcher to yield a collective rather than individual view. Most authors (Brinkmann & Kvale, 2015; Cohen et al., 2011; Dilshad & Latif, 2013; Krueger & Casey, 2014; Lichtman, 2013; Punch, 2009) referred to the researcher who uses focus group interviews as a moderator rather than an interviewer because in focus group interviewing the process is not alternating questions and answers as in traditional interviews (Punch, 2009). Rather, focus group interviews require skillful facilitation and management by the moderator (the researcher) who plays a critical role in organising, facilitating, moderating and recording group interaction.

4.3.2.2 Why focus group not individual interviews?

As has been indicated earlier, the present study aims to investigate the field of gifted education in the Omani school context through investigating Omani teachers' ITG and gifted education practices that are currently taking place at cycle two government schools. The decision to opt for focus group interviews over individual interviews has been driven by many hallmarks of focus group interviews which are thought to meet the aims and the philosophical assumptions of this study. First, focus group interviews are predominantly useful when a researcher aims to explore people's understanding and experiences of an issue and the reasons behind their particular pattern of thinking (Dilshad & Latif, 2013). In addition, Morgan (1996) argued that focus group interviews provide access to forms of data that are not obtained easily by participants' observations or individual interviews. This may be because focus group interviews are seen to provide a more natural interaction than that of individual interviews, as

participants interact and are influenced by each other just as they are in real life (Krueger & Casey, 2000).

Therefore, the interaction that takes place between the members of focus group interviews is highly valued by most authors who have written on group interviewing (Brinkmann & Kvale, 2015; Krueger & Casey, 2014; Lichtman, 2013; McLafferty, 2004; Morgan, 1988). For example, Morgan (1988, as cited in Punch, 2009, p. 147) pointed out that *“the hallmark of focus group interviews is the explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in the group”*. Therefore, a well-facilitated interaction can help in bringing to the surface aspects of a situation that might not emerge during individual interviews (Lichtman, 2013; Punch, 2009). This means that group interaction can also stimulate participants to make their implicit views, perceptions and reasons explicit. Such a hallmark is congruent with the aims of the present study and makes group interviews a more attractive data-gathering option than individual interviews. It is assumed that teachers' ITG and gifted learners can be probed and disclosed more deeply as the participants listen to their peers' views and experiences and reflect back on their own experiences and thoughts. Consequently, focus group interviews were an appealing tool for me as a researcher that enabled me to discover more about cycle two Omani teachers' shared theories, common personal beliefs, understandings and views. Due to its powerful ability to unveil people's implicit theories and views regarding a certain topic, focus group interviewing is thought to work as an excellent way to understand cultures (Savin-Baden & Major, 2013). This hallmark is another motive for choosing focus group interviews over individual interviews in this study. This study assumes that Omani teachers' ITG are influenced by their culture. Therefore, focus group interaction

can powerfully encourage participants to disclose cultural views pertaining to giftedness.

The present study also aims to explore the existing practices pertaining to gifted education and the challenges facing gifted education at the four cycle two governmental schools in Batinah North Governorate. This aim was achieved through conducting focus group interviews with a number of administrators at each school case. It was believed that this type of interview would also encourage the administrators to freely talk about their perceptions, views and experiences about gifted education at their schools. Initially, I thought of individual interviews with one administrator in each school, but the plan changed for several reasons. First, by studying the four school contexts, it appeared that there was no particular person at these four schools who was formally responsible for managing gifted practices. Thus, it was difficult to decide on who was the best person to talk to about the current practices and possible challenges the schools face with regard to gifted education. Hence, I assumed that holding a group discussion with a number of administrators (at least three participants) at each school could generate rich data needed to answer the research questions. Beside this, focus group interviews saved my time and allowed the gathering of large data in less time and for less cost (Stewart & Shamdasani, 2014).

4.3.2.3 Drawbacks of focus group interviews

While focus group interviews seem appealing to achieve the collection of a large amount of data, they have been criticised just as any other research method. One of the criticisms that has been associated with focus group interviewing is the problem of only one voice being heard. Cohen et al. (2011) pointed out that is particularly true if

there is a dominant member of the group. In the present study, this is more likely to occur especially with the administrators' interviews due to the hierarchical status of the group members. I assumed that the administration staff in each school are best interviewed as a group to answer the questions concerning practices and challenges, but it was not possible to have administrators of the same hierarchal status. School principals were among the ones who were first invited to take part in these interviews alongside two other members of the administration staff. Thus, having the school principals in the group interview might have restricted other participants from speaking out freely. The same thing could have also happened in the teachers' groups. Vocal participants tried to dominate other members in the course of group discussion.

Stewart and Shamdasani (2014) stated that the data collected might be biased if there was a dominant member amongst the group. However, as pointed out earlier these drawbacks might apply to any other research method and as a moderator, I attempted to distribute the participation chances between participants and control the dominance of any individual member (Krueger & Casey, 2014).

Another criticism relates to the data and findings revealed in the focus groups, which are seen as insignificant and less reliable (Stewart & Shamdasani, 2014). This criticism, however, is also associated with any qualitative data collection method, but the validity and trustworthiness of the collected data can be increased by employing more than one method. In relation to this, Krueger and Casey (2014) suggested that the quality of the collected data can be raised by controlling the size of the group and the interview time. The smaller the groups, the better the findings can become. Following this advice, the number of participants in all groups did not exceed five members. Other considerable limitations associated with the focus group interviewing

include difficulty getting people together on time for the group session, intra-group disagreements and possible conflicts (Cohen et al., 2011). Furthermore, the interview transcripts are somewhat daunting and chaotic (Brinkmann & Kvale, 2015).

4.3.2.4 The composition of focus groups

The main intent of the focus groups is to promote self-disclosure among participants. It is assumed that people are more likely to disclose and share when they feel they are alike in some ways (Krueger & Casey, 2014). Some researchers (Dilshad & Latif, 2013; Krueger & Casey, 2014; Lichtman, 2013) suggested that the key consideration in recruiting participants to these groups is to have commonalities or experience with regard to the topic under study. Cohen et al. (2011) stressed that the group should have homogeneity of background in the required area, otherwise the interaction will lose focus or become unrepresentative. Krueger and Casey (2014) maintained that this homogeneity can be broadly or narrowly defined, and this is determined by the purpose of the study. As the present study intended to look at how cycle two female teachers at Omani government schools define giftedness and what sort of gifted education practices they are involved in at their schools, only female teachers who teach cycle two grades (Grades 5-9) were targeted for the focus group interviews. The study did not aim to generalise in the traditional sense; therefore, it was not necessary to make sure that groups represent the population in terms of age, race, ethnicity or educational level. Similarly, with the schools' administrators; group members varied in terms of age, professional position and qualification. Yet, they have commonality of being an administrator in a cycle two government school.

As emphasised by Krueger and Casey (2014), the quality of discussion in focus groups is strongly affected by the size of the group. Most researchers (Krueger & Casey,

2014; Lichtman, 2013) who wrote about focus group interviewing recommended a group of six to 12 people; although Krueger and Casey (2014) recommended that the typical focus group can consist of five to eight. Following Krueger's and Casey's advice and for management purposes, in the present study each teacher focus group consisted of four to six teachers representing different metaphorical groups. For the administrators' interviews, it was difficult to recruit more than three to four administrators in each focus group interview due to the limited members of administration teams who are concerned with gifted education in each school. Anderson (1990) suggested using smaller numbers in focus groups interviews when the topic under study needs to be explored in greater depth and where participants have substantial experiences to share. Since this was exactly the case of my four schools' administrators who seemed very involved with the topics being discussed, I took this as a rationale to claim that recruiting only three participants in the interviews was sufficient.

4.3.2.5 Deciding on the number of groups

The main goal of focus group interviews *"is not to reach consensus about, or solutions to the issue discussed, but to bring forth different viewpoints on an issue"* (Brinkmann & Kvale, 2015, p. 175). The collected data will then be compared and contrasted across groups. In order to meet this goal, Krueger and Casey (2014) proposed that the researcher needs to conduct at least three focus group interviews. Thus, being limited by time and the availability of participants, I assumed that conducting three focus group interviews with teachers at each school case would be sufficient. Regarding the focus group interviews with the school's administrators, there was no possibility of increasing the number of groups due to the small number of administration team members in each school. Therefore, I assumed that interviewing

three administrators as one group in each school could generate sufficient data to answer the questions related to the existing practices and challenges in each school. Table 4.3 and Table 4.4 demonstrate the number of the focus group interviews that had been planned and the number of the interviews that were actually carried out beside the number of participants in each group:

Table 4.3

Number of Planned and Conducted Focus Group Interviews and Teacher Participants

School Case	No. of planned interviews	No. of conducted interviews	No. of participants
School A	4	3	14
School B	4	3	14
School F	4	3	13
School D	4	2	9
Total	16	11	51

Table 4.4

Number of Planned and Conducted Focus Group Interviews and Administrator Participants

School Case	No. of planned interviews	No. of conducted interviews	No. of interviewed administrators
School A	1	1	1
School B	1	1	2
School F	1	1	2
School D	1	1	3
Total	4	4	8

4.3.2.6 Interview guides

Two interview guides were used in the present study: a teachers' guide (Appendix 4.5A) and an administrators' guide (Appendix 4.5B). The main purpose of using interview guides was to direct group interaction and to stimulate discussion about the topic of the study as well as to ensure all the required information was obtained during the interviews (Kvale, 2008). In addition, it was hoped that devising the guides would result in a good use of interview time, as well as keeping interactions more systematic and focused. It is worth noting that the questions in the guides acted only as a guide, so other questions and comments were posed during the actual interviews when necessary to stimulate discussion (Kvale, 2008; Lichtman, 2013; McIntosh & Morse, 2015; McLafferty, 2004; Punch, 2009). The questions in the two guides were evaluated with respect to both a thematic and a dynamic dimension (Kvale, 2008). According to Kvale (2008), a good interview question should "*contribute thematically with regard to producing knowledge, and dynamically with regard to the interpersonal relationship in the interview.*" (p.57). Therefore, the questions in the teachers' guide (see Appendix 4.5A) relate to the teachers' metaphors, implicit theories and their sources and teachers' practices with regard to gifted education. These themes relate to the theoretical conceptions of the study and the subsequent analysis of the interview (Kvale, 1996, 2008). Similarly, the questions in the administrator's guide were structured in relation to the themes and research questions of the study (see Appendix 4.5B) to direct the interview towards exploring the current gifted education practices and challenges facing their schools. It was assumed that the school's administrators would be able to answer the questions related to these issues (practices and challenges), as most of them have a long experience of various educational jobs in government schools.

4.3.2.7 Interview guides development

The interview guides in this study followed the questioning route strategy suggested by Krueger and Casey (2014) because this strategy is believed to increase the consistency in the way questions are asked across the groups. The list below demonstrates the types of questions used in designing the two guides as inspired by Krueger's and Casey's (2014) categorisation. Each type of question is supported with examples from the two guides in Appendix 4.5A and Appendix 4.5B:

- ❖ **Opening Questions:** Are designed to get all participants to talk early in the discussion and to make them feel comfortable, for example by asking them about themselves and their families, so they should be easy to answer quickly. These questions are not to obtain information, so typically they are not analysed.
- ❖ **Introductory questions:** Are designed to introduce the topic of the interview and to get participants thinking about their connection to the topic. Such questions often give the moderator clues about participants' views.

Type of questions	Area investigated	Interview questions (teachers)	Purpose of the question
Introductory	Lead in	Do you remember the metaphorical image you generated to represent your thoughts of a gifted learner? What was it?	Introduce the topic

- ❖ **Transitional questions:** While the introductory questions open up the discussion, transition questions move the discussion closer to the key questions.

Types of Question	Area investigated	Interview questions (administrators)	Purpose of the question
Transitional question	-	Having talked about the concept of gifted education in general, can we now move on to talk about gifted education at your school?	Linking

❖ **Key questions:** Drive the discussion and require sufficient time to be developed, discussed and analysed. They are usually probed and prompted by the moderators to get deeper responses. In this regard, Krueger and Casey (2002) pointed to various forms of key questions including:

- Open-ended questions which should be linked to recent experiences and events because they reveal what is in participants' minds and allow them to decide on the direction for their responses.
- Avoid dichotomous questions where the answers are either Yes or No.
- Think-back questions which take participants back to an experience and get them to talk about it; such questions set a context for participants and help them talk about their personal experiences.
- The use of probes and prompts, such as short comments or questions to further stimulate the discussion.

Type of question	Area investigated	Interview questions (administrators)	Purpose of the questions
Key questions	Existing gifted education at each school	-Could you describe in one word the status of gifted education at your school? -Can you name any activity or initiative that your school organises or is involved in which you think is serving and meet gifted learners' needs?	Get deeper answers

Closing questions: Bring closure to the discussion and they often ask participants to reflect back on their responses. There are three types of questions to be used at this stage: (1) all things questions, (2) summary questions and (3) final question.

Type of question	Area investigated	Interview questions (Teachers)	Purpose of the questions
Ending question	Interview closure	<p>All things questions: Suppose you have one minute to talk to the minister of education in Oman, 'what would you ask her to do in relation to gifted education?</p> <p>Summary question: How well does that summarise what was said here? Is that adequate to express what has been said?</p> <p>Final question: Have we missed anything? Do you have anything you want to add?</p>	Checking and interpreting participants' responses

The overall plan of the focus group interviews consisted of three main parts: opening and introductory, main body and closure. The opening and introductory part was important as it put participants at ease and set ground rules for the discussion, such as mobile phones, respect and clarity of voice. Moreover, this part was used to share some basic information about the study and myself. The main body of both teachers' and administrators' interviews is presented in Table 4.5.

Table 4.5

The Body content of Focus Group Interview for Teachers and Administrators

Area of discussion	Teachers	Administrators
<i>Metaphors' data and teachers' reflection on metaphor as a tool</i>	✓	-
<i>Dimensions of giftedness</i>	✓	-
<i>Sources of teachers' ITG</i>	✓	-
<i>Common practices of gifted education practices</i>	✓	✓
<i>Challenges</i>	✓	✓
<i>Recommendations/ suggestions</i>	✓	✓

4.3.2.8 Recruitment process

Teachers who participated in the metaphor activity had been previously informed that they would be invited for an interview to discuss their metaphors and other issues related to the topic of gifted education. Therefore, on my visits to the schools for interviews, these teachers were targeted. Senior teachers at the four school cases played a big role in assisting and facilitating the interviews as they were the ones who initially invited the teachers and urged them to take part. In addition, they took the responsibility of finding a quiet place for conducting the interviews and they also helped in adjusting some teachers' timetables to attend the interviews.

The administrators were approached through the schools' principals who also played a big role in the process of recruiting administrators. I had personally communicated with the four school principals prior to the selection of school cases to inform them and obtain their consent about their schools' participation in this study. The principals who agreed were also asked to give names of administrators who are responsible for caring and following up gifted learners and gifted education at their schools. The principal of the D school nominated herself to be one of the participants of the interview. Here, I have to clarify that in the Omani school context, the word 'administrator' refers to any member of the school administration team who has a specific set of administrative responsibilities at the school. Although most of them used to be teachers, after being assigned to these administrative positions, they no longer teach. For the purpose of clarification, Table 4.6, presents the three types of administrators who participated in the four focus group interviews along with their duties.

Table 4.6

Administrators' Titles and Duties

Administrator	Who?
School principal	<ul style="list-style-type: none"> -Leads teachers and staff and ensures that students meet their learning objectives. -Oversees the school's day to day operations and review school policies and procedures. -represents the school at events and attends meetings -Ensures that the school is following MOE regulations
Social worker	Provides social services and guidance to students and offers the social educational care to different categories of students, among whom are gifted learners.

School activities specialist	Activates the school extracurricular activities and follows up the formation of school societies. One of his/her duties is to follow up gifted learners at the school and provide them with the necessary support and care.
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4.3.2.9 Piloting interview guides

Once the interview guides were designed, they were refined before the actual implementation through pilot testing. McIntosh and Morse (2015) emphasised the importance of piloting interviews to ensure the cogency of the guides' questions. Through guide piloting, the researcher can check if s/he has included all the necessary questions and if the questions elicit the type of answers anticipated. In addition, guides piloting can help the researcher to assess the language of questions in terms of clarity and ambiguity. Furthermore, this step enables the researcher to check if the questions are in a logical order and if they motivate interviewees to participate in the study. The process of guide piloting requires the researcher to be aware of certain concerns. For example, Creswell (2013, p.165) pointed out that pilot cases are selected on the basis of "*convenience, access and geographic proximity*". In this regard, it is important to highlight that the teachers' focus group interview was supposed to be conducted with the same teachers who took part in the metaphor activity. Thus, the two interviews piloting were done at the same nearby school where the metaphor activity was piloted. The piloting of the interview with teachers was held with the same group of teachers with whom the metaphor activity was piloted. As for the administrators' interview guide, it was also piloted with two administrators from the administration team of the same school where the metaphor activity and teachers' interview guide were piloted.

The process of piloting the two guides went smoothly and both groups of participants seemed to understand the questions easily without need for further clarification. However, it is worth mentioning that the inclusion of the transitional questions in the two guides worked greatly in directing the interviews, so these questions were kept as they were for the actual interviews. One amendment was carried out on the teachers' guide and that was the omission of the step that asks interviewees to write their own definitions of a gifted learner prior to the discussion of giftedness dimensions. This is because I felt that the inclusion of such a step would interrupt or slow down the flow of teachers' talk at this stage of the interview. Besides, bearing in mind that the time allocated for each interview was only 40 to 45 minutes, I realised that giving teachers five minutes to write their own definitions was too much and this may negatively affect the time allotted for other main questions of the interview.

4.4 Research quality assurance (Trustworthiness)

Qualitative researchers argue that because the nature and the purpose of quantitative and qualitative studies are different, it is erroneous to apply the same criteria of worthiness or merit (Krefting, 1991). Due to the issue of inappropriateness of quantitative criteria in the assessment of qualitative research, alternative models have been developed to ensure the rigour of the findings of qualitative research. Guba's (1981) model is comparatively well-developed and has been used widely by qualitative researchers, particularly educators and nurses. This model is based on the identification of four aspects of trustworthiness that are relevant to qualitative research: credibility, transferability, confirmability and dependability. Despite the fact that Guba proposed this model for positivist and natural science research, social science researchers use the criteria whether fully or partially. Denzin and Lincoln (2011), for instance, pointed to the same four criteria when assessing the rigour of the

constructivist-interpretivist paradigm. Likewise, Creswell and Miller (2000) referred to the same four criteria and strategies for assessing the trustworthiness of qualitative data. Hence, to increase the rigour of this study's findings and to enable readers to assess the value of the findings, the same four criteria have been considered through adopting various strategies.

4.4.1 Credibility

Credibility is perhaps the most important criterion for the assessment of qualitative research (Krefting, 1991). It means "*establishing confidence in the truth of the findings of a particular inquiry for the subjects with which and the context in which the inquiry was carried*" (Guba, 1981, p. 79). This suggests that the researcher's job is to represent the multiple realities revealed by the informants as adequately as possible. In order to increase the credibility of the findings of this study, a number of strategies were considered. Cohen et al. (2011) noted that we can ensure that the study investigates what it actually intends to (internal validity) through using well-designed methods and triangulation. Triangulation involves the employment of different methods to produce much qualitative data (Shenton, 2004). This study attempted to make use of triangulation through using two different methods with the teacher participants. To clarify, the metaphor analysis phase was followed by the focus group interviews so that the data obtained from the metaphor analysis were checked and furthered through the data obtained from the interviews.

Another validity procedure is for researchers to stay in the research field for a longer time. Creswell and Miller (2000) opined that prolonged engagement allows gaining a credible account by building a tight and holistic case. This strategy is congruent with the nature of this study, which adopted a multiple case study design. The preliminary

visits to the four school cases enabled me to build a better understanding of the four contexts and the participants. In addition, spending quite a long time at the four investigated schools facilitated finding gatekeepers such as senior teachers and schools' principals, who allowed quicker access to participants, namely teachers and administrators. These visits also helped in building trust with participants and sites, as well as establishing rapport so that the participants became more comfortable with disclosing information (Creswell & Miller, 2000; Shenton, 2004).

In addition, many researchers (Creswell & Miller, 2000; Guba, 1981; Krefting, 1991; Shenton, 2004) emphasised 'member check' as a strategy to promote credibility. Member check refers to testing the data with the members from whom the data was drawn to check how accurately participants' realities were represented in the final account (Creswell & Miller, 2000). To some extent, this study considered this strategy when conducting the focus group interviews with both groups. As shown in the teachers' interview guide (Appendix 4.5A), the interpreting questions were included at different stages of the interviews to assess whether the interpretations accurately represented the participants' responses or not. In addition, the nature of the primary method in this study, namely focus group interviews, enabled me, as a researcher, to probe and prompt the responses given by the teachers and administrators, a feature that helped in reducing the doubts and increasing the credibility of the obtained data. Moreover, the piloting stages of the metaphor activity and focus group interviews and the consequent incorporation of changes enhanced the validity and truth of the data collection methods. Another strategy strongly suggested by many researchers (such as Creswell & Miller, 2000; Guba, 1981; Krefting, 1991) is peer debriefing, which refers to the review of the data and research process by someone who is familiar with the

research or the phenomenon being explored. As the present study is a PhD thesis, it has been constantly reviewed and checked by my two supervisors, one of whom has had a long career in gifted education field. Thus, the feedback I got from the two supervisors provided support, challenged my assumptions, pushed me to the next step methodologically, and asked hard questions about methods and interpretations (Creswell & Miller, 2000). Indeed, the assistance of the supervisors has added credibility to this study.

4.4.2 Transferability

This criterion of assessing the study trustworthiness is concerned with the extent to which the findings of a study can be applicable to other contexts or situations (Shenton, 2004). Stake (1995) argued that although each case may be unique, it is also an example within a broader group and, as a result, the prospect of transferability should not be immediately rejected. To allow readers to assess how transferable the findings are to other contexts, Guba (1981) and Creswell and Miller (2000) emphasised the importance of providing significant details and a vivid description of the study when writing it up. According to Denzin (1989, as cited in Creswell & Miller, 2000, p. 129), this writing process involves *“describing a small slice of interaction, experience, or action; locating individuals in specific situations; bringing a relationship or an interaction alive between two or more persons; or providing a detailed rendering of how people feel.”*

Correspondingly, Denzin and Lincoln (2011) maintained that it is the responsibility of the investigator to ensure that sufficient contextual information about the fieldwork sites is provided to enable the reader to make such a transfer. Therefore, to enhance the transferability of this study's findings, detailed descriptions are provided throughout different aspects of the thesis. For example, a whole chapter is allocated to describe the context of the study focusing on the education system, the current status of gifted education and teachers' pre-service and in-service opportunities in Oman. Moreover, detailed descriptions of the four schools, the two groups of participants and the process of how the data was collected are also given in this chapter. Besides, the four cycle two school cases share many features with most cycle two schools within

Batinah North governorate (the governorate from which the four schools were selected) and other governorates in Oman. To demonstrate, the four schools are being supervised centrally by the MOE, so to some extent their circumstances are similar to other schools not involved in this study. In addition, teachers who represented one main dimension of this study share a similar culture, as well as pre-service-education and INSET with most teachers in other schools contexts across the country. Guba (1981) argued that if the detailed descriptions of the investigated Context A demonstrate an essential similarity to the readers' Context B, then it is reasonable to suppose that the tentative findings of Context A are also likely to hold in Context B. Accordingly, given the similar contexts and circumstances, I believe that the rich descriptions of the whole study process confirm the transferability of this study as this process becomes transparent to the readers.

4.4.3 Confirmability

In qualitative studies confirmability is comparable to objectivity in quantitative data. It means that the researcher must consider certain steps to ensure that the study's findings are the result of the participants' experiences and ideas, rather than the characteristics and preferences of the researcher (Shenton, 2004). Because interpretive research is based on the assumption that social knowledge is explored and constructed using the participants' views and the researcher's interpretations (Creswell & Miller, 2000; Lichtman, 2013), it is undesirable and unexpected for researchers to take an objective position. However, a researcher can follow a set of strategies to promote the confirmability of the data. Accordingly, this study employed certain strategies to foster confirmability: auditing, triangulation and reflexivity. The first two strategies are discussed within this section, while 'reflexivity' is discussed separately in Section 4.4.4 due to the critical role it plays in this study. Guba (1981)

proposed audit strategy as a major technique for establishing confirmability. This strategy refers to involving an external auditor who follows the progression of events in a research project to try to understand how and why decisions were made. Lincoln and Guba (1985 as cited in Krefting, 1991) emphasised that the audit should be ongoing throughout the research process. As already mentioned under the credibility section, this study is being supervised by two academic supervisors who both followed the process of research, as well as the product, data, findings, interpretations and recommendations. With regard to triangulation, as noted earlier in relation to credibility, the use of two methods (metaphors and focus group interviews) to collect data from teachers helped in verifying the data and reducing the researcher's bias (Creswell & Miller, 2000; Shenton, 2004).

4.4.4. Researcher's role

In relation to the criterion of confirmability, Cousin (2010) contended that instead of researchers thinking of how to minimise and avoid subjectivity, they need to think more about how to bring themselves into the research process. Therefore, I attempted to adopt a reflexive role throughout the study. This means that as a researcher I intentionally revealed to my audience the underlying epistemological assumptions which caused me to formulate a set of questions in a particular way and finally to present my findings in a particular way (Ruby, 1980 as cited in Guba, 1981, p. 87). The self-disclosure of my beliefs and assumptions helped me to sort through the biases, which, in turn, allowed me, as a researcher, to understand my influence on the research process, especially the interpretation of meanings (Creswell & Miller, 2000; Lichtman, 2013). In addition to the researcher's self-disclosure, this chapter may reflect another form of reflexivity, as it provides a detailed description of the methodological approach that was followed throughout the study. In relation to this,

the beliefs underpinning the decisions made and methods adopted have been acknowledged as well within the study report. Moreover, the reasons for adopting certain methods over others were presented, as well as admitting the expected challenges and limitations associated with each method. To foster the reflexive role, I tried not to influence participants' responses and views. For instance, in the focus group interviews, I tried to act as a moderator whose role was to facilitate and lead the interaction. As noted by Shenton (2004), this reflexive role can help the readers to see how far the data and themes emerging from this data may be accepted.

To this end, in addition to considering the four criteria of the trustworthiness of the study's data, another crucial factor to support the quality assurance of the study is the ethical considerations. The next section will highlight how the present study has considered this vital element.

4.5 Ethical Considerations

As this study involved people, it was ethically reviewed and received a favourable opinion before the field work commenced. Therefore, the study has fully abided with the ethical policy and guides stated by the University of Exeter and it obtained the approval from the university ethical committee (see Appendix 4.6). The study considered all the ethical principles recognised by the University of Exeter, where the study was conducted. These ethical codes were applied as detailed below.

4.5.1 Autonomy

Consistent with the commitment to individual autonomy, social science insists on that research subjects have the right to be informed about the nature and the consequences of the research they are involved in. Christians (2007) pointed out that a proper respect of a person's autonomy includes two necessary conditions. First, the

research's subjects must agree voluntarily to participate without any physical or psychological coercion. Taking this principle in consideration, my participants were explicitly told that their participation is optional, and they were not obliged to take part if they did not want to. The second condition is that participants' consent must be based on full and open information about the study they are involved in, such as the duration, methods, possible risks and the purpose of the research. This information was made clear to participants in an oral and written forms in Arabic (Appendix 4.9A and Appendix 4.9B) at the beginning of the study.

4.5.2 Gaining access

As this study follows a multiple case study design, I needed to obtain official access to the four school cases before contacting the participants themselves. To access the participants, a series of official communications were carried out:

- sent a letter to the Technical Office of Studies and Development in the MOE (Appendix 4.7) with comprehensive information about the study accompanied by the ethical approval letter issued by the ethical committee at the University of Exeter (Appendix 4.6).
- The Technical Office of Studies and Development reviewed the above letters and then an official email was directed to the BNGED to inform them about the study.
- The Technical Office of Studies at the BNGED then sent an official email with general information about the study to the principals of the four school cases. It was hoped that this official email would facilitate access to the four schools and ease the data- collection process.
- After going through the above official procedures, I visited the four schools and the school principals were presented with the information and consent forms

(Appendix 4.8). The four school principals were asked to read the information and consent forms which stated clearly the research title, the research focus, the nature of their schools' involvement and the researcher's details including contact number and email. They were told that if they had any questions concerning the whole study, they could ask me. Once each principal gave her official consent to the study, she had to sign two copies of the information and consent forms; one copy was given to them and I kept the other copy.

- Gaining principals' consent gave me access to the two groups of participants: teachers and administrators. Each group of participants was presented with the information form to inform them about the study and the nature of their participation. Along with the information form, participants were also presented with the consent form to reassure them about their anonymity and of their voluntary participation and to their right to withdraw from this research (Appendix 4.9A, Appendix 4.9B).

4.5.3 Confidentiality and anonymity

The schools' and participants' dignity, privacy and confidentiality were taken into consideration throughout the stages of the study. Therefore, teachers' metaphors, interview recordings and transcripts were held in confidence. Participants were assured that the information they provided would not be used other than for the purposes described above and third parties would not be allowed access to them. Besides, the administrators' and teachers' names used in the transcripts and thesis were pseudonyms and there was no reference to any of the participants' identity or schools' real names at all stages of this study.

This section has addressed the ethical issues considered during this study; the next section sheds light on the way in which the gathered data was organised and prepared for analysis.

4.6 Qualitative Data Analysis

Qualitative research aims to find out more about participants' experiences, their beliefs, feelings and social practices (Willig, 2014). In this study this aim was met through raising questions about the meaning and significance of participants' responses and making relations between different aspects of the data in order to increase my understanding. However, one of the challenges to qualitative studies is the open-ended nature of the collected data. For my study, the volume of the collected data was reduced through identifying categories together and searching for some understanding through focusing on selected aspects of meaning, namely those aspects that relate to the main research questions of the study (Schreier, 2014; Bengtsson, 2016).

4.6.1 Qualitative content analysis process

My study followed qualitative content analysis as a framework for the analysis of all the data that I had collected because I found this approach more flexible and manageable for my study. Qualitative content analysis is defined as an analysis approach that seeks to understand subjects' experiences of issues, the meaningfulness and the significance of the communication. As stated by Dörnyei (2007), this approach of data analysis process utilises an interpretive approach to unpack the underlying meanings of the data. In this sense, qualitative content analysis is more linked with meanings of words as most interpretation and the identification of meanings are done by the researcher. Initially, content analysis was linked to the

frequency of word occurrence where the more a phrase occurred, the more value it gains. This old understanding is attributed to the fact that content analysis was mostly utilised in quantitative studies (Dörnyei, 2007). According to Dörnyei (2007), a vital difference between quantitative and qualitative content analysis is that the data in the latter are processed inductively where the categories used in the analysis are not predetermined. However, according to recent views on qualitative studies, both deductive and inductive approaches can be utilised. This means that when conducting content analysis on qualitative data as in the present study data, some themes and categories can be predefined (Newby, 2014).

In a review of literature, the content analysis process involves certain stages that are similar in the way researchers explain and present them, but they differ in terms of the distinguishing titles assigned to them. For the present study, the data analysis process consisted of preparing and organising the data for analysis, exploring the data and grouping them into categories through a coding process and finally representing the data in figures, tables or a discussion (Creswell, 2013; Jamieson, 2016). Figure 4.3 represents the stages I followed in analysing the gathered data and below I give a summary of each stage in relation to my data analysis process.



Figure 4.3. The process of data analysis

4.6.2 Data preparation and organisation

The analysis of the metaphor activity outcomes and the focus group interviews was carried out using a two-phase approach based on Glaser and Strauss (1967) and Miles and Huberman (1994). The first phase was vertical analysis, where each set of data was analysed separately, and the second phase was comparative or horizontal analysis through cross-case analysis where researchers look for common similarities and differences in the data being analysed. Silverman (2004) and Robson (2011) maintained that this approach to analysis increases the validity and credibility of the study and provides more in-depth insights into the data being analysed. Regarding the metaphorical data, the preparation of the data started first by sorting the forms of the metaphor activity manually according to school cases and taught subjects. Then, the sorted forms were converted into electronic versions by scanning them to upload them to the MAXQDA software which I utilised for managing and organising my data. The preparation of the metaphorical images allowed me a chance to become very familiar with the images and to construct my first thoughts and ideas about teachers' metaphors.

In terms of the data gathered by the focus group interviews, preparing and organising the data mainly means the process of transcribing and translating interviews. Transcription is an important first step in data analysis and it refers to the phase of setting down and representing audible and visible data into a written form (Kowal & O'Connell, 2014; Baily, 2008). It starts by close observation of data through careful listening to the recordings repeatedly (Baily, 2008). Transcribing is described as being an interpretive process because it involves making judgments as researchers need to decide which level of transcription detail is required for their research project and how data are to be represented in a written form. This decision is guided by the

methodological assumptions underpinning the research project. It also depends on the intended use of the transcripts: whether it is for a detailed linguistic or conversational analysis or for reporting the subject's account in a readable public story (Jamieson, 2016; Kvale, 2008). Therefore, some researchers tend to transcribe the complete interviews and even use techniques for representing pauses, laughter and awkward moments, while others only transcribe what seems important to their studies.

As for this study, familiarisation with the interviews data was achieved by transcribing and translating the fifteen interviews myself. Each interview was transcribed entirely in Arabic through focusing on the meaning of participants' words and reporting the participants' accounts in a readable public story (Jamieson, 2016; Kvale, 2008); this was done using a word-processor. After transcribing the fifteen interviews in Arabic, the transcripts were uploaded into the MAXQDA software, where decisions were made about which parts of each interview were important to the study and which parts were irrelevant and meaningless (Spencer, Ritchie & O'Connor, 2003).

It is worth highlighting that data (interviews and metaphors) for this study were gathered in the researcher's first language (Arabic) because the majority of the targeted participants do not speak English, but the final report is supposed to be presented in English. Roulston (2014) stated that when data-gathering is conducted in languages other than the language of presentation, further decisions need to be made concerning translation. For the current study, the interviews were transcribed in my native language, Arabic, and then the findings and the relevant extracts of the Arabic transcripts were translated into English (see Appendix 4.10 for an example of a translated transcript). Roulston (2014) stated that there are no 'right' ways to transcribe and/or translate interview data, but the choices made in the processes of transcription

and/or translation allow certain kinds of analytic questions to be asked. The decisions regarding what parts of the interview data to translate into English and which parts to leave out were guided by my research questions and aims (Kvale, 2009).

4.6.3 Data exploration

Data exploration in qualitative data analysis means reading through all of the gathered data to construct a general understanding (Creswell & Plano Clark, 2011). It involves recording first thoughts through writing comments or memos on the explored data. It is worth pointing here that data collection and transcription for my study occurred simultaneously. Therefore, notes of personal, conceptual or theoretical ideas and reflections that came to my mind were recorded as I was collecting and transcribing the data. This early data analysis sufficiently contributed to the improvement of following up interviews and the notes represented a subtle source for the later steps of the study, namely coding and data interpretations.

In addition, data exploration also further occurred while the metaphorical images were being scanned and the interview data were being transcribed. After uploading of these materials to the MAXQDA software, I started writing comments and memos (see Appendix 4.12, for an example). Therefore, comments were added to the metaphorical images and some lines of the descriptive parts of the metaphor activity were highlighted and commented on. In addition, memos with some initial ideas and short paragraphs were also attached to some parts of the transcribed interviews. Generating these memos and initial ideas at this time was a vital step in paving the route for coding and developing a qualitative codebook (Jamieson, 2016; Creswell, 2013; Creswell & Plano Clark, 2011).

4.6.4 Coding and categorisation

Coding is an integral part of the analytic process, but it is not analysis in itself. Qualitative coding is defined as the process by which segments of data are identified as *“relating to, or being an example of, a more general idea, instance, theme or category”* (Silver & Lewins, 2017, p.158). In this sense, the coding process is seen as a great contributor to the management and ordering of data, as it enables easier searching for similarities, differences, anomalies, patterns and relationships. Mile and Huberman (1994) noted that coding enables the researcher to combine the data for ideas, themes and categories to be used for comparison and analysis. DeCuir-Gunby, Marshall and McCulloch (2011) proposed three strategies for creating codes: prefigured data (often from theoretical model or literature), data driven (emerging from raw data) and structural (derived from the research’s goals and questions).

In coding the data related to teachers’ ITG of the metaphor activity and the transcripts of the focus group interviews (RQ1 and RQ2), I used the prefigured data approach or what is referred to as ‘deductive coding process’, where a prior list of codes was created to direct the initial analysis (Bengtsson, 2016; Silver & Lewins, 2017). This list of codes was identified by the prior review of the literature and it included overarching codes/themes (see Section 3.3.6 in Chapter Three) that helped in guiding the analysis process. However, I have to say that while it is true that I followed a deductive approach of data analysis, the door was left open for as many sub-codes as possible to emerge. Therefore, the initial coding process resulted in 699 themes, codes and sub-codes (see Appendix 4.11), which were then merged and combined to themes to match the prefigured codes in a way that fed into the research questions and aims. While Creswell (2013) maintained that prefigured codes are found to limit analysis rather than opening up codes, it is also argued that it is much easier to obtain high

reliability with code lists generated deductively rather than inductively (Catanzaro, 1988 as cited in Bengtsson, 2016). With regard to data related to the third, fourth and fifth research questions, I followed an open coding process. This allowed further exploration of ideas and meanings related to the sources of teachers' ITG, gifted education practices and the challenges that were contained in the raw data which, in turn, allowed me to develop as many concepts and codes as possible (Corbin & Strauss, 2008).

The use of MAXQDA software in coding process made the process more dynamic than is possible when working on paper or with non- bespoke software packages such as a word-processor (Silver & Lewins, 2014). Indeed, the use of MAXQDA offered flexible ways and great assistance in the coding process because it enabled me to block and label text segments with codes, so they could be easily retrieved. Add to that, it organised the codes into visual forms making it possible to see relationships among them (Creswell & Plano Clark, 2011). Moreover, using MAXQDA software encouraged the cyclical and iterative nature of qualitative research. With regard to the current study, my choice of MAXQDA software was specifically driven by two reasons. First, the MAXQDA supports the coding on Arabic transcripts and as I mentioned before, the initial coding was conducted on the Arabic transcripts of the interviews. The second reason is that since I am using visual data (metaphors), MAXQDA allows direct annotation on the images, a feature that other software packages may not allow (see Appendix4.12, for an example).

4.6.5 Presentation of the analysis

Cohen et al. (2011) pointed to two forms of representing data according to cases. The first form of case study analysis is to present a series of individual case studies which

are followed by analysis that draws together common findings from the different case studies and also indicates the exclusive features of each. This approach was implemented in analysing and presenting the data of the metaphorical analysis (RQ1). The other form of case study analysis is carried out by combining case studies as an overall study that sets out common and singular features and properties of the cases. Due to the interrelation across the four school cases, I found this form of representing data very helpful when presenting data concerning the teachers' ITG and their sources, existing practices of gifted education and the encountered challenges (RQ2, RQ3, RQ4 and RQ5). A thematic structure turned out to be a better choice instead of structuring and organising this part of the analysis according to school cases. Themes are an integral part of much of social science research and without themes a researcher has nothing to describe, nothing to compare and nothing to explain (Ryan & Bernard, 2003). Vaismoradi, Jones, Turunen and Snelgrove (2016) stated that text from data may involve multiple meanings and these meanings can be conveyed in terms of themes and subthemes. A theme is defined as an implicit topic that organises a group of repeating ideas which enables researchers to answer the study questions. It is considered as the translation of participants' perspectives when faced with certain phenomena. They emerged as the researcher raises the participant's perspective to an abstract level of conceptualisation and seek the underlying meaning in the participants' words. Therefore, theme construction can be taken as an advantage in this qualitative study because it helps with seeing a broad picture of the collected data and eliciting the essence of the participant's experiences (Stott & Graven, 2013). Another reason for adopting thematic approach is that it facilitates the evaluation of the results of data analysis, improves rigor, and leads to deeper understandings of complex human phenomena (Vaismoradi & Snelgrove, 2019). The primary aim of

qualitative studies like the present one is not to make generalisable findings, but rather to provide contextualised and comprehensive understandings of the topic under study for possible transferability. Hence, presenting the analysed data in terms of themes that fit the original context can empower readers to make appropriate judgments of similarity of the study context to their own context (Vaismoradi & Snelgrove, 2019). Since most over-arching themes of this study were identified prior to the data collection, examples and extracts were drawn selectively from different case studies to illustrate and support these themes. Besides, the findings drawn from the different methods of data were represented visually in tables, diagrams and images specifically in the metaphorical section to facilitate the process of comparing and contrasting.

Having organised and presented the study findings, I moved to the interpretation of the meaning of these findings. I did part of the interpretation directly while presenting the findings in Chapter Five and Six. Further interpretation of the discussed themes was presented in the discussion chapter through advancing the larger meaning of these findings using my views as a researcher and ideas drawn from literature review.

4.7 Summary of the chapter

This study aimed to explore the implicit theories of Omani teachers of a gifted learner and giftedness, the existing practices of gifted education at cycle two Omani government schools and the challenges they face in this regard. To dig deeply into these areas, qualitative research methodology was adopted, namely case study design, for its reliability and appropriateness for this study purpose. The methods chosen for this investigation were metaphorical analysis and focus group interviews with the participating teachers and the four school cases' authorities. Because this study sought to construct new knowledge, it required data-gathering methods that

allowed me to get closer to participants and listen to their views and beliefs. Hence, teachers' metaphorical images of gifted learners and the focus groups interviews with both groups of participants enabled the achievement of this aim.

This chapter has outlined all the decisions regarding the philosophical assumptions underlying the study and the study design. The data-collection methods were described carefully with the piloting stages and the kind of modifications made. The chapter also described the participants who participated in the study and the recruitment process involved. It covered issues related to the data quality and the ethical principles it took into consideration. Finally, Chapter Four described the data analysis method and the structured approaches implemented to analyse the collected data. Having done this, the next two chapters present the findings drawn from all the sources of data.

Chapter Five: Data Analysis (Teachers' ITG)

Introduction

The main aims of this study are to explore teachers' metaphorical thinking and implicit theories pertaining to gifted learners and giftedness, gifted education practices and the encountered challenges at cycle two Omani government schools. This chapter is intended to consolidate the data from the various instruments used in this study and relate them to the first, the second and the third research questions. Findings derived from the metaphorical analysis and the focus group interviews with the teachers were presented, compared and contrasted (where applicable) in order to show commonalities and conflicts within participants' responses. To this end, this chapter has three sections: Section 5.1 reports on teachers' metaphorical images of a gifted learner; Section 5.2 reports on teachers' ITG and Section 5.3 reports on the possible sources of these ITG.

5.1 Metaphor analysis

This section presents the findings pertaining to the first research question, namely *'What metaphors do cycle two teachers identify, capture, and share to represent their implicit theories pertaining to gifted learners?'* The analysis has followed a case study analysis approach by presenting the findings according to schools and under each school case teachers' metaphors are presented according to the taught subject groups. For the purpose of organisation, the analysis of each school case's metaphors begins with a table (Table 5.1, Table 5.2, Table 5.3 and Table 5.4) that gives a summary of the analysis in each school case, as follows:

- Column one: The taught subject group and the number of teacher participants
- Column two: The generated metaphorical images
- Column three: The shared characteristics between each image and a gifted learner.

The summary table of each school is followed by a detailed analysis to allow readers to get an in-depth understanding of teachers' metaphorical image of a gifted learner. The analysis covers the images and the written descriptions given by the participants in the forms used during the metaphor activity (see Appendix 4.4) together with the discussion of these metaphorical images during the focus group interviews. To help readers to see the differences and commonalities within teachers' metaphorical thinking of a gifted learner, the metaphorical analysis of each school case is concluded with a diagram (Figure 5.8, Figure 5.13, Figure 5.18 and Figure 5.23) to indicate the mutual characteristics that have been repeated across the four subject groups within each school case.

5.1.1 School A's metaphors

Table 5.1

A Summary of the A School's Metaphors

The subject	Image	Shared Characteristics
<i>English</i> (6 teachers)	*A heavy rainy cloud	-Wide knowledge -Seeks new information -Grasps rapidly -Socially intelligent
	*Computer	-Seeks excellence -Multi-skilled
	*Blank paper	-Deals with what they do professionally -Creative
	*An excellent hunter	-Picks from the surroundings -Grasps new information quickly -Integrates across all subjects -Relates and compares

<p style="text-align: center;"><i>IT</i> (2 teachers)</p>	<p>*Curious child</p>	<ul style="list-style-type: none"> -Curious discoverer - Knowledge-seeker -Enjoys being engaged in something; unaware of the time passing -A good observer and analyst -Has clear goals -Self-dependent -Integrates and combines knowledge of different subjects
<p style="text-align: center;"><i>Science</i> (4 teachers)</p>	<p>*Distinguished person</p> <p style="text-align: center;">*Internet</p>	<ul style="list-style-type: none"> -Different and creative -Inborn high level of ability -Seeks attention -Excellent in everything - Performs in a complex and distinctive way - Smart organiser of what is being processed -Possesses a net of combined information from different fields that can be recovered when needed - Retains information and uses if/ when needed -A good communicator
<p style="text-align: center;"><i>Maths</i> (5 teachers)</p>	<p>*Nils character</p> <p style="text-align: center;">*Brainy Smurf</p>	<ul style="list-style-type: none"> -Challenges difficulties -Risk-taker -Adapts to any place easily -Good knowledge acquirer/processor -Good communicator -Fond of learning -Curiosity/knowledge-seeker -Inquisitive -Likes discussions -Deep thinker -Researches, experiments and tests out the world

5.1.1.1 English group's metaphors

The English group at the A School was the most challenging one. Although, these teachers did the activity and sent me two metaphorical images (Figure 5.1 and Figure 5.2) through the senior teacher, when the time of the interview came, they declined to take part in the interview due to their heavy timetables. The senior teacher, then, invited another two English teachers to participate in the interview, but these teachers teach cycle one classes (Grades1-4) and had not taken part in the initial metaphor activity. One of the criteria I set before starting the data collection was to interview only cycle two teachers. However, considering the aim of my study and the situation of the

selected schools (three schools out of the four are connected schools that include grades 1-9), I decided that this criterion could be accommodated. Thus, I ended up with 4 metaphorical images: two were individual and the other two were generated by groups.

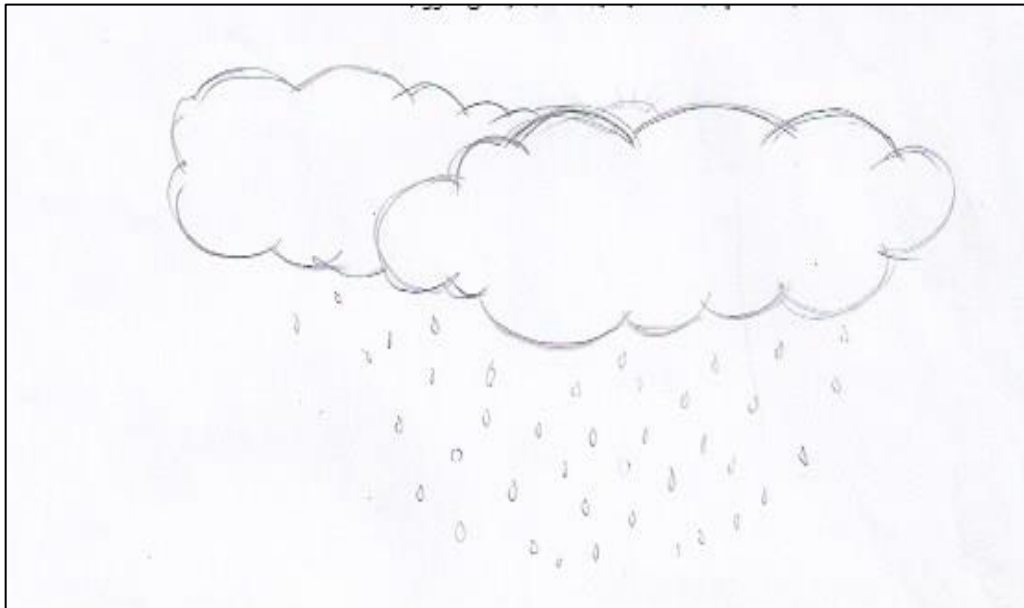


Figure 5.1. Clouds with heavy raindrops metaphor

As shown in Figure 5.1, the first English group gave a metaphor of **Clouds with heavy raindrops**. The gifted learner is the cloud and the heavy raindrops represent the wide knowledge a gifted learner possesses across several areas. This image suggests that a gifted learner is already saturated with wide-reaching knowledge that can be used whenever needed. The second English group, as shown in Figure 5.2, gave an image of **a computer** and according to them, there are many shared features between a gifted learner and a computer; both have multi-skills, social intelligence, quick grasp of new information, are creative and seek excellence.

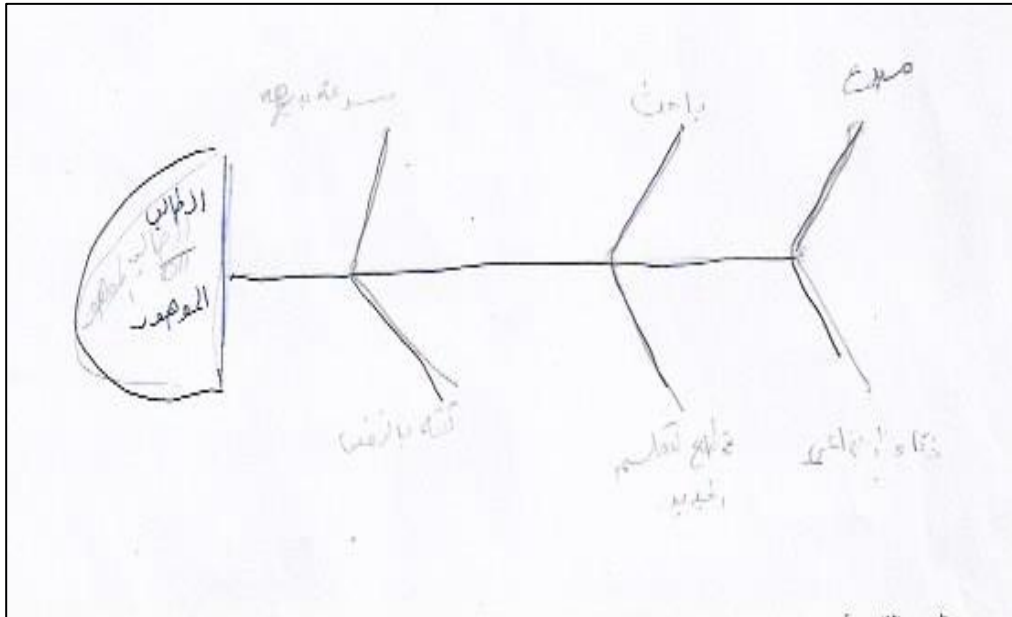


Figure 5.2. A computer metaphor

The metaphorical image that was given by the first individual English teacher was not very clear because of the limited time for the interview, she did not draw the image she thought of; instead, she talked about it during the interview. According to this teacher, a gifted learner is **like someone who is given a blank sheet to create something, so s/he picks from the knowledge s/he already has to generate something creative**. Briefly, the teacher wanted to say that a gifted learner is spontaneous as s/he can think on his/her feet creatively and produce unique things. The second English teacher depicted a gifted learner as an excellent **hunter** to emphasise the following characteristics:

- Able to grasp information quickly: Like an excellent hunter who can quickly and smartly hunt the target, a gifted learner is also able to grasp and process information rapidly.
- Able to integrate the information/knowledge acquired from different fields/subjects: To be successful, a hunter tries to deploy the information s/he knows about the target and the location in conjunction with his/her hunting

skills. Similarly, when given a task, a gifted learner tends to rely on what s/he has learnt in different subjects. S/he compares and relates the acquired information to finally generate a distinguished work/product.

5.1.1.2 IT group's metaphor



Figure 5.3. A curious child metaphor

As Figure 5.3 shows, the IT teachers perceived a gifted learner as **a curious little child**. According to these teachers, there are many mutual features between the two.

Like a curious child, a gifted learner:

- Is a curious discoverer.
- Is a knowledge seeker.
- Enjoys being engaged in something and is unaware of time passing
- Is a good observer and analyst.
- Has clear goals.
- Is self-dependent, integrates and combines knowledge of different subjects.

5.1.1.3 Science group's metaphors

The science teachers at the A School gave two metaphorical images for a gifted learner. As shown in Figure 5.4, the first group believes that a gifted learner is like **a person who is always recognised and distinguished.**



Figure 5.4. A recognised and distinguished person

What helps both characters to achieve this high level of recognition is that both of them (the metaphorical person and the gifted learner) possess certain qualities including:

- Able to perform differently and creatively.
- Possess inborn high abilities.
- Wish to always seek attention so they can be visible and recognisable.
- Desire for excellence in everything.

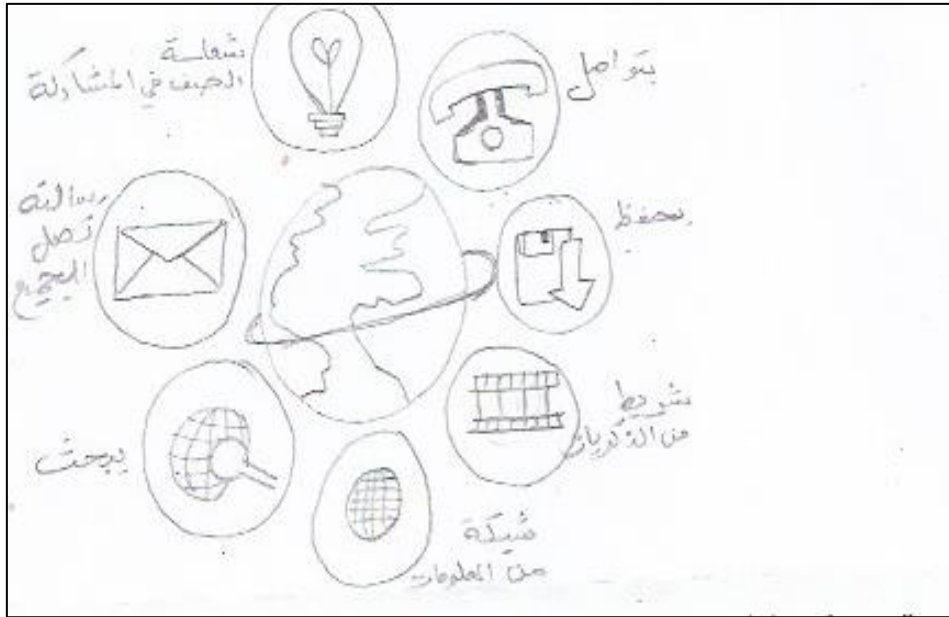


Figure 5.5. An Internet metaphor

As Figure 5.5 shows, the second group of science teachers perceived a gifted learner as **an internet**, an image that seems closer to the image of 'a computer', which was generated by the English group above. According to this group, there are many mutual features between the internet and a gifted learner, such as:

- The internet operates at an advanced level and in a complex way that is sometimes not possible for a human mind to understand, just as a gifted learner.
- The internet has the ability to collect and organise information, just as a gifted learner is a smart organizer of what s/he processes.
- Like the internet, a gifted learner has a net of combined information from different fields that can be retrieved when needed.
- Like the internet, a gifted learner has the ability to acquire and retain the information and use it when needed.
- Both the internet and a gifted learner are seen as good communicators. The

internet creates new channels for human communication; a gifted learner is a person who is sociable and likes to communicate and network locally and globally for the sake of widening his/her knowledge.

5.1.1.4 Maths group's metaphors

It is obvious that maths teachers at the A School were influenced by the way the activity was introduced to them. On the day of my visit to the school, I could not meet the teachers because they were so busy with their teaching, so I explained the task to the maths senior teacher, who had agreed to do the activity on my behalf with the rest of the teachers. As with the most groups in the investigated schools, the piloting group's metaphor (the cartoon character Conan) was used as an example to demonstrate the activity to the senior teacher. As a result, the two maths groups generated cartoon characters to represent their metaphorical images of a gifted learner. Although the maths teachers at the A School came up with two different cartoon characters, their descriptions of these fictional characters showed quite similar theories of a gifted learner.



Figure 5.6. Nils character metaphor

As Figure 5.6 shows, one group of the maths teachers used the **Nils character** from a well-known old cartoon entitled 'Nils Adventures'. Briefly, the story of this cartoon was about a 14 year old boy who used to enjoy abusing animals in his family farm. One day, while his family was away, and he was alone at home, he caught a small fictional creature 'tomte' and he dealt disrespectfully with it. The little creature was so angry that he turned Nils into a tiny creature, which left him shrunken and able to talk with animals. Then, Nils joined a group of wild geese and went on an adventurous trip across all the historical provinces of Sweden. During the trip, Nils learnt that if he proved he had changed for the better, the tomte might be disposed to change him back to his normal size. Through the Nils character, the maths teachers wanted to say that a gifted learner is like Nils as both characters:

- Challenge difficulties.
- Like to try and take risks.

- Adapt to any place easily.
- Acquire and process new knowledge easily.
- Establish good relationships quickly and communicate easily.



Figure 5.7. Brainy Smurf metaphor

The second maths group drew a fictional character of another well-known cartoon: specifically, the '**Brainy Smurf**'. This character was taken from a Belgian comic centered on a fictional colony of small, blue, human-like creatures, who lived in mushroom-shaped houses in the forest. There were more than 100 Smurf characters, and their names were based on adjectives that emphasised their characteristics. The 'Brainy Smurf', is one of these Smurfs who was named after his personality dispositions. According to the teachers, a gifted learner is like the Brainy Smurf because the two characters share a number of characteristics, such as being:

- Fond of learning
- Curious
- Inquisitive
- Eager to discuss

- Deep thinkers Researchers, experimenters and testers.



Figure 5.8. Shared attributes between School A's metaphors

To sum up, Figure 5.8 indicates several important points concerning teachers' metaphorical thinking of a gifted learner in the A School. Although the three subject groups (the IT group is merged with the English group as there were only two IT teachers) used different images to express their metaphorical thinking of a gifted learner, there are many common characteristics between these images, which reflects that teachers hold some similar implicit theories of a gifted learner. As indicated by Figure 5.8, there are some shared characteristics between the images of each two subject groups, such as the maths group, who used the images of Nils and Brainy

Smurf, and the English and IT groups, who used the images of rainy cloud, a computer, a hunter and a blank paper. If we look at the shared part between the maths group circle and the English/IT group circle, we can see that a gifted learner resembles the proposed images of the groups in a number of characteristics, namely a desire to experiment, observe, analyse, be curious and enjoy learning. On the other hand, the middle-shared part of Figure 5.8 represents the mutual characteristics between the three subject groups: a quick information grasper, an information processor and a knowledge seeker.

5.1.2 School B's metaphors

Table 5.2

A Summary of the B School's Metaphors

The subject	Image	Main characteristics
<i>English</i> (6 teachers)	*An active curious child	<ul style="list-style-type: none"> -Wide imagination skills -Passionate about exploring and discovering -Passionate about creating unique things -Seen everywhere at school/place (multi-skilled) -Performs at a high level in any given task because of their high level of energy - Possesses innate multi-abilities -Is more comfortable when being engaged and kept busy -Has extra energy that needs to be well directed, otherwise gets bored (energetic) -Analyst -Inquisitive as they keep posing questions to find out answers to their wonderings -Persists in aiming to reach goals - Challenges obstacles
<i>IT</i> (2 teachers)	*A maestro	<ul style="list-style-type: none"> -High imagination skills -Has a well-planned, systematic way of commencing a task (consistent) -Brainstorms ideas -Picks up the best ideas to go ahead with that the task (selective) -Generates creative pieces of work (creative) - Demonstrates leadership skills
<i>Science</i> (5 teachers)	*An Octopus	<ul style="list-style-type: none"> - An open-minded individual (creative) - Owns multi skills and is sensitive to different situations -Both are flexible in movement/ thought -Able to assess all matters related to their interests
<i>Maths</i>	*A bee	<ul style="list-style-type: none"> - Consistent -Hard working and excellent performance

(5 teachers)		<ul style="list-style-type: none"> - Very selective - Collaborative spirit
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5.1.2.1 English group's metaphors

The English group (six teachers) gave an image of ***an active curious child***, see *Figure 5.9*. According to them, this metaphorical image is the closest they could think of as it represents most of the characteristics and personality predispositions of a gifted learner, in particular:

- Vivid imagination skills
- Passionate about exploring and discovering new things or creating unfamiliar things
- Like a curious child who can be seen everywhere around the place, a gifted learner can be seen everywhere at school as well as performing highly in any given task because s/he has high energy levels and innate multi-abilities.
- Feeling more comfortable when being engaged and kept busy because both (a curious child and the gifted) have high energy levels that need to be well directed, otherwise s/he gets bored.
- Both show interest in detail; they tend to break down the things they explore, they analyse to discover, and they keep posing questions to find out answers to their wonderings.
- Nothing stops them from reaching their goals.
- Both like to challenge obstacles

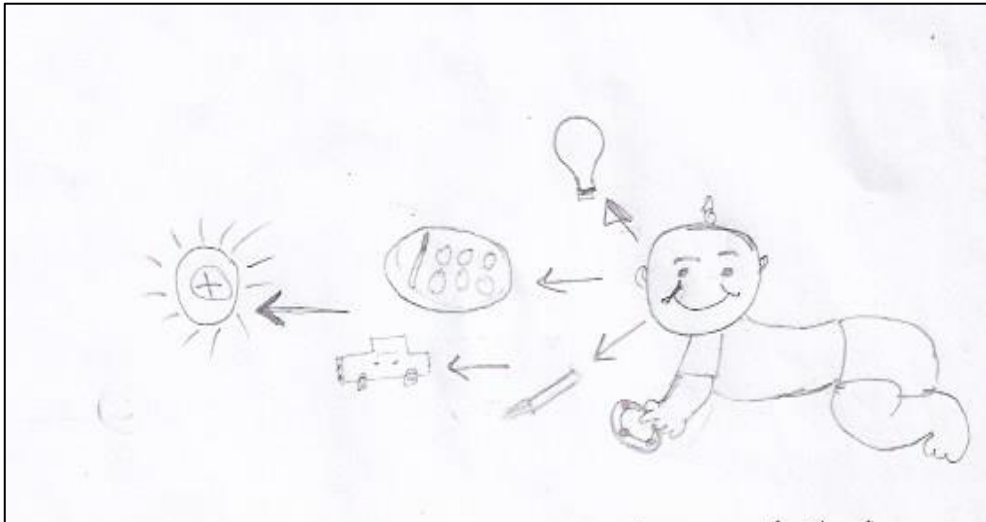


Figure 5.9. A curious child metaphor

5.1.2.2 IT group's metaphors

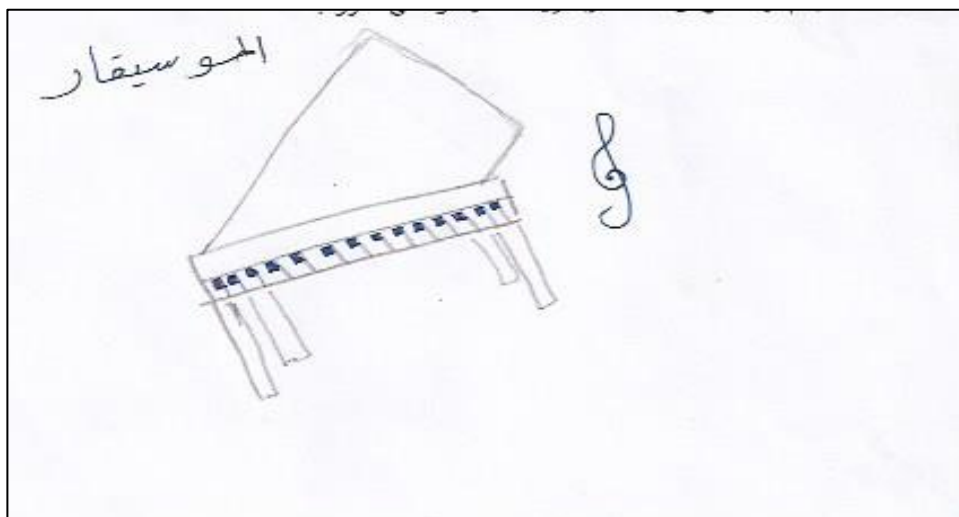


Figure 5.10. A maestro of a musical band metaphor

For the IT group (two teachers), the final image they agreed on was **a maestro of a musical band**, as shown in Figure 5.10. In their description of the image, the teachers explained that a gifted learner resembles a maestro of a musical band in the following characteristics:

- Having highly imaginative skills that a normal person does not have
- Always following a systematic way of commencing a task starting with the ideas brainstorming and then picking up the best ideas that lead to creativity
- Eager to generate a creative piece of work that impresses the audience/teacher

Possessing good leadership skills; to be named as a maestro for a musical band, you need to show strong leadership skills. Likewise, a gifted learner is usually recognised through the leadership skills /she displays in dealing with others.

5.1.2.3 Science group's metaphors

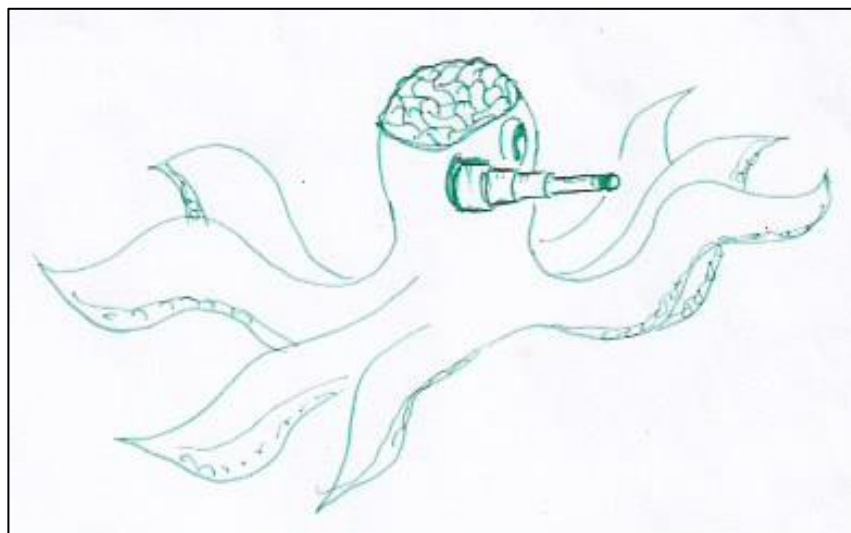


Figure 5.11. An uncovered brain octopus

The science group (five teachers) depicted a gifted learner as ***an uncovered brain octopus*** that holds a microscope. As shown in Figure 5.11, each part of the octopus indicates a certain belief about a gifted learner, for example:

- The 8 arms of the octopus mean that a gifted learner has multi skills and is sensitive to different situations around him/her.
- The uncovered brain means that a gifted learner is an open-minded individual who always thinks outside the box, as stated by one teacher “*We also*

deliberately drew the octopus with the uncovered brain and we meant that a gifted learner thinks openly or as we say s/he thinks creatively outside the box, we can say s/he thinks fluently.”

- The octopus is flexible in its movement, whereas a gifted learner is flexible in his/her thinking, a feature that makes him/her generate creative and unique ideas.
- A gifted learner is like the octopus in having the ability to evaluate all matters related to the domain of his/her giftedness to generate the best of it.

5.1.2.4 Maths group’s metaphors

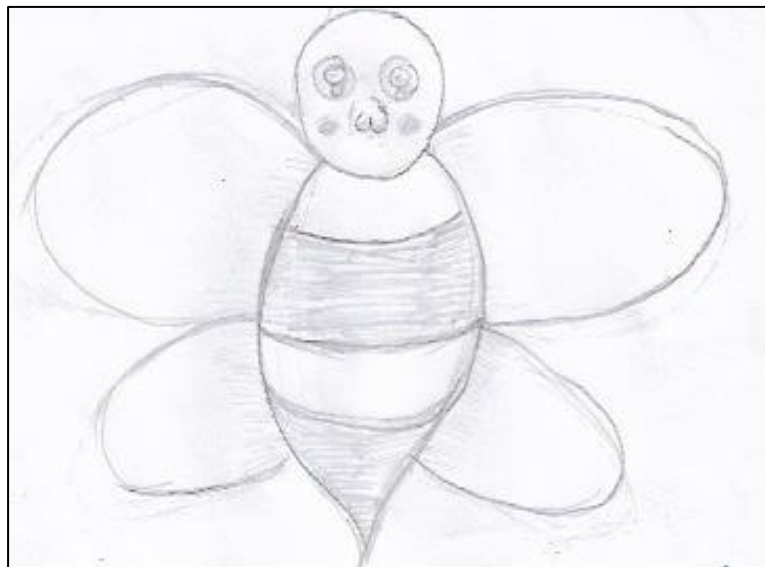


Figure 5 .12. A bee metaphor

Figure 5.12 presents the metaphorical image of the maths teachers (5 teachers) at the B School. For them, a gifted learner shares many attributes with **bees** and the most prominent attributes are:

- Consistency and hard work; like a bee, a gifted learner is very a hard-working person who consistently works to achieve his/her goals.

- Bees are known for being very selective when picking flowers to produce pure and tasty honey. Likewise, when a gifted learner is given a task, s/he tries to be very selective in terms of ideas and materials to ensure that the outcome of the given task is different and unique.
- Collaborative spirit, as noted by a teacher *“a bee works collaboratively with its peers and so does a gifted learner”*.

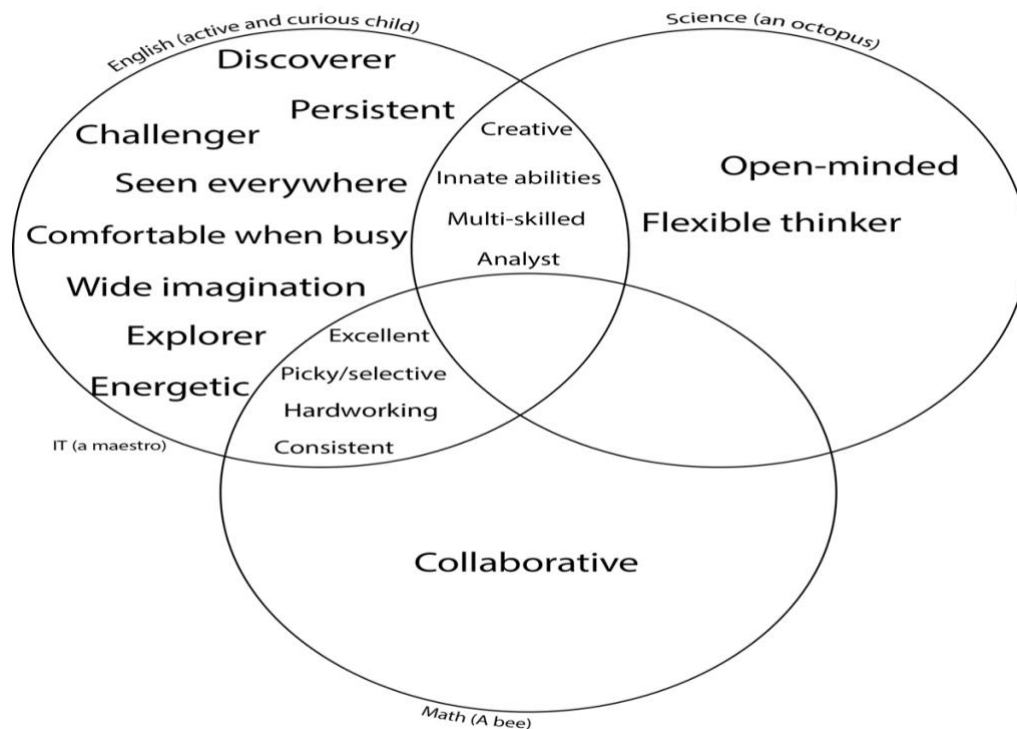


Figure 5.13. Shared attributes between School B's metaphors

As Figure 5.13 shows, there are no mutual attributes in the shared middle part between the three groups, but there are some shared attributes between the metaphorical images of each two subject groups. For instance, if we look at the shared part between the English/IT teachers (a hyperactive child and a band maestro) and

the science teachers (an octopus), we can conclude that both teacher groups hold the belief that a gifted learner has innate high abilities, high level analytical skills, multi-skills and creativity. In addition, if we look at the shared part between the English/IT group (a hyperactive child and a maestro) and the maths group (a bee), we can conclude that both groups think that a gifted learner is excellent, hardworking, very selective and consistent. Figure 5.13 also shows that although the science group (an octopus) and the maths group (a bee) used images of animals, surprisingly no shared attributes between the two groups were detected.

5.1.3 School F's metaphors

Table 5.3

A Summary of the F School's Metaphors

The subject	Image	Main characteristics
<p><i>English</i> (4 teachers)</p>	<p>*An oil well</p> <p>*A sparkling star</p>	<ul style="list-style-type: none"> -A future resource for the country's wealth and prosperity -Crucial players in the current economy of the country -The country's elites are among these elite learners (highly skilled) -Looking after gifted learners is very important -Attracting attention, recognisable among his/her peers -Creative/generates distinguished ideas -Very influential/viewed as a model -Owning leadership skills
<p><i>Science</i> (4 teachers)</p>	<p>*An explorer</p>	<ul style="list-style-type: none"> -Guided by goals -Equipped with the skills and knowledge needed to achieve such goals. - Never surrenders, challenges difficulties -Using high-level thinking skills to deal with any difficulties encountered -Often comes up with creative solutions -A good communicator

<p><i>Maths</i> <i>(5 teachers)</i></p>	<p>*A little child climbing an endless long staircase</p>	<ul style="list-style-type: none"> -Should manifest behaviours of giftedness -Gradual growth of giftedness that is supported by external factors -The giftedness is genetically supported -Environmental factors play a big role in the manifestation of giftedness
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5.1.3.1 English group's metaphors

When doing the metaphor activity, the English teachers (four teachers) at the F School also formed two sub-teams to generate two metaphorical images. The metaphorical image of the first team focused on the economic value of gifted learners to their community rather than the characteristics of these learners, whereas the metaphorical image of the second sub-team concentrated more on a gifted learner's characteristics.

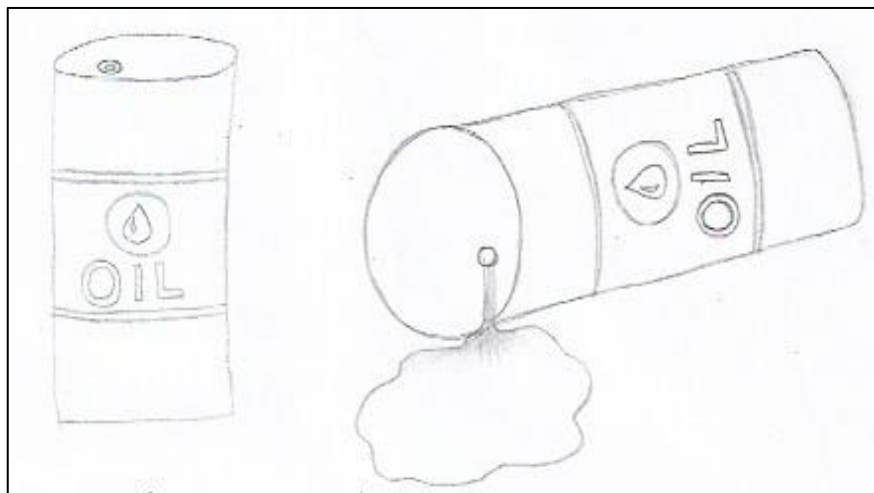


Figure 5.14. An oil well metaphor

To clarify, as Figure 5.14 shows, the first sub-team depicted a gifted learner as **an oil well** and through this image, the teachers wanted to say that in any community gifted learners represent a great resource of wealth. Like oil wells, which represent the primary economy pillar of Oman, if gifted learners are carefully looked after and their

abilities are efficiently exploited, they will form the main pillar of their country's prosperity and economy growth. Thus, this view of a gifted learner focuses on:

- Viewing gifted learners as a future resource for the country's wealth and prosperity.
- Seeing the gifted as being crucial players in the current economy of the country.
- In any country, the elites such as politicians, doctors, engineers, economists and so on are originally gifted individuals.
- Thus, looking after and supporting this category of students is very important.

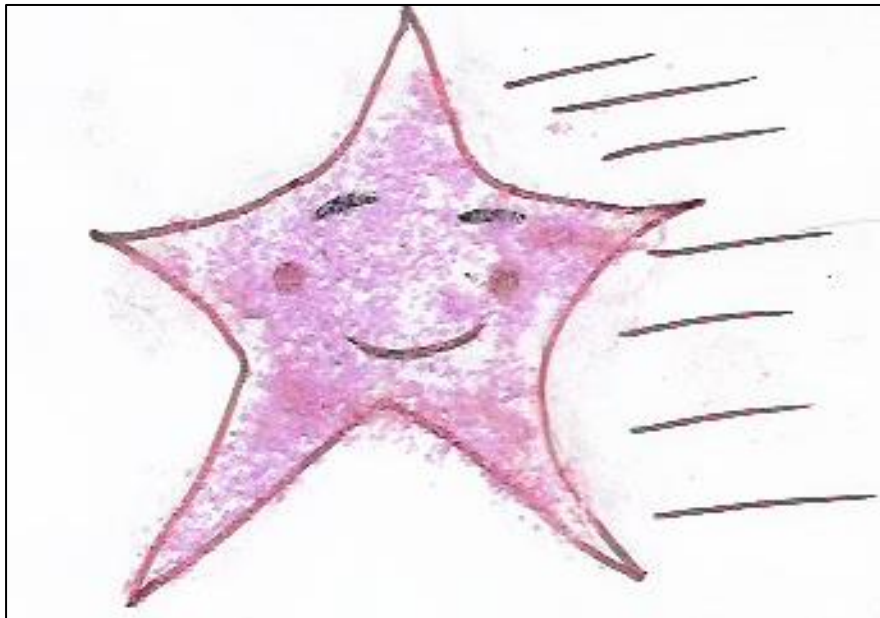


Figure 5.15. A sparkling star metaphor

As Figure 5.15 shows, the second English sub-team focused on the personal characteristics of a gifted learner through the use of **a sparkling star image**. Through this image, the teachers emphasised the following characteristics:

- A sparkling star can be recognised easily among thousands of other stars and a gifted learner is always visible and recognisable among his/her peers because

his/her performances attracts everyone's attention.

- Always creative as s/he generates distinguished ideas.
- Very influential; like a sparkling star which guides travellers on their journey, a gifted learner is viewed as a model by his/her classmates who tend to follow his/her footsteps.
- Leadership; just as the sparkling star leads people towards their destinations, a gifted learner also directs people around him/her towards their goals as s/he is trustworthy and well-respected.

5.1.3.2 Science group's metaphors

During the focus group interview, this group of teachers noted that before deciding on the final metaphorical image (***an explorer***), they had thought of various metaphors, such as a brain with hyper-linked nerves, a bouncing ball and slime. With all these metaphorical images, the teachers seemed to hold a general view of a gifted learner which represents a gifted learner as a problem-solver and a difficulties challenger. They seemed to be influenced by their subject matter (science) as evident in one of the teachers comment "*Hahah, you know we are science teachers, so we felt that we had to use science in thinking about it, so we wanted to draw slime (slippery substance) to represent the gifted learner but we found that so difficult.*" Thus, as depicted in Figure 5.16, the final metaphorical image they agreed on was an image of ***an explorer*** equipped with all the materials and information s/he needed to start off his/her journey.



Figure 5.16. An explorer metaphor

As explained in the interview, the explorer is aware that his/her mission is not easy, and s/he has to go through difficult routes in order to reach his/her destination (goals). S/he has to cross through rivers, climb mountains, and walk through bushes and high trees. A teacher described an explorer by saying “...*he can overcome all the difficulties he encounters to reach his goals, whatever difficulty, and at the same time he thinks critically and always comes up with creative solutions*”. Accordingly, like an explorer, a gifted learner:

- Is guided by clear goals and he/she knows that these goals are not easy to achieve, so he/she always tries to equip him/herself with the skills and the knowledge needed to achieve such goals.
- Like an explorer, when faced by difficulties or hard tasks, a gifted learner never gives up.
- Like an explorer, a gifted learner makes use of their high level thinking skills to deal with the encountered difficulties.

- Both often come up with creative solutions.
- A good communicator; an explorer is usually a good communicator because on his/her way to the destination, s/he needs to communicate with people whom s/he meets to ask for the directions that lead him/her to the destination. Likewise, a gifted learner needs to network and use different communication channels to reach his/her goals.

5.1.3.3 Maths group's metaphors

As shown in Figure 5.17, the maths teachers at the F School gave an image of **a little child climbing an endless long staircase** with landings in between. Through this image, the teachers meant to emphasise the developmental nature of giftedness. Each part of this staircase represents a stage of the child's life-long learning journey starting from home, then moving to a pre-school, followed by school and post-school. Although the focus of this group's metaphorical image was not the characteristics of a gifted learner, when talking about their image during the interview they pointed to some characteristics of a gifted learner, namely:

- The child they talked about was not a normal child. To be named as gifted, s/he should manifest some behavioural features that indicate giftedness, such as curiosity.
- The growth of a child's gift does not occur at once, but gradually step-by-step depending on a number of environmental and intrapersonal factors.
- This group stressed the role of genes in the existence of giftedness.
- Despite the fact that the climbing child was born with certain genes, giftedness does not develop by itself; environmental factors, such as family and schools, play a crucial role in the manifestation of giftedness.



*Figure 5.17. A little child climbing an endless long staircase
metaphor*

As shown in Figure 5.18, some shared attributes between the metaphorical images of the participating groups can be detected, which means, again, that although the teachers teach different subjects, they hold some similar thoughts about a gifted learner. As an example, the shared part of Figure 5.18 between the English group (an oil well and a sparkling star) and the science group (an explorer) indicates that the two groups believe that a gifted learner is creative, generates distinctive ideas and is highly skilled. On the other hand, the shared part between the English group (an oil well and a sparkling star) and the maths group (a climbing child) signals that both groups perceive a gifted learner as someone who is recognisable and constantly supported by environmental factors. However, the empty shared part of the diagram between the three circles suggests there are no mutual attributes between the three teacher groups.

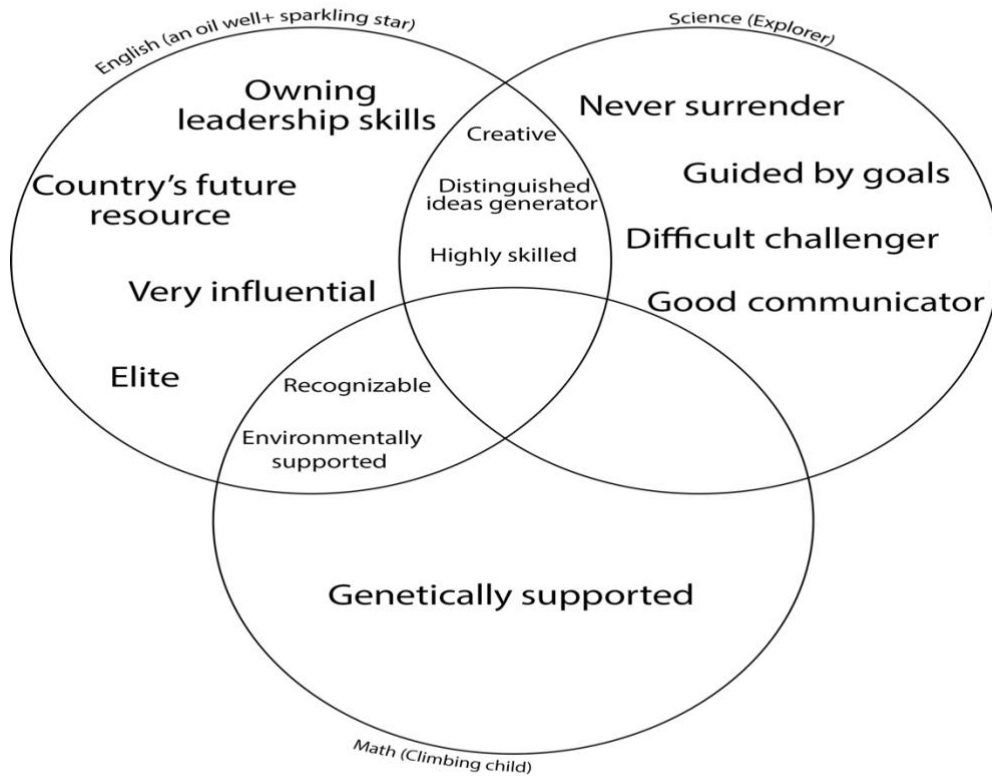


Figure 5.18. Shared attributes between School F's metaphors

5.1.4 School D's metaphors

Table 5.4

A Summary of the D School's Metaphors

The subject	Image	Main characteristics
<p><i>English</i> (4 teachers)</p> <p><i>IT (one teacher)</i></p>	<p>*A magic wand</p> <p>*Raindrops</p>	<p>-Should be hit/touched to encourage them to display what they have</p> <p>-Cannot evolve by itself, it should be supported to work and pushed by a set of factors</p> <p>-Autonomy and self-government</p> <p>-Influential, a gifted learner also gives life to the class and spreads energy and enthusiasm among students.</p>
<p><i>Science</i> (2 teachers)</p>	<p>*A flower</p>	<p>-Influential</p> <p>-Easily recognised and spotted</p> <p>-Distinguished and creative</p> <p>-Performs differently</p>
<p><i>Maths</i> (2 teachers)</p>	<p>*An artist</p>	<p>- Highly imaginative skills</p> <p>- Work is distinguished, different and unique among others'</p> <p>- Very selective</p> <p>- Being different' is strongly emphasized (different and recognised)</p>

The

5.1.4.1 English group's metaphors

English teachers (four teachers) and the IT teacher at the **D** School gave two metaphorical images for a gifted learner, but they reflected two contradicting views. While the first image '**a magic wand**' indicates that a gifted learner is directed and triggered by teachers, the second image 'raindrops' suggests that a gifted learner is self-directed and autonomous.



Figure 5.19. A magic wand metaphor

Figure 5.19 suggests that the teachers perceive a gifted learner like **a magic wand** because:

- Most gifted learners are not necessarily outgoing, and they tend not to show themselves in the class. They only appear when a teacher discovers them. Like a magic wand, which needs to be hit or touched by a witch to make wishes come true, once a teacher discovers a gifted learner, s/he needs to urge and push him/her to turn his/her potential into a remarkable performance.
- Giftedness cannot evolve and develop by itself; it should be supported and nurtured with a set of assisting factors. Just like a wand, it cannot make wishes true without the magic of a witch.

5.1.4.2 IT teacher's metaphor



Figure 5.20. Raindrops metaphor

The IT teacher (there was only one IT teacher in this school) depicted a gifted learner as **raindrops** and she gave several reasons to explain this metaphorical thinking:

- Autonomy and self-government; as a teacher described *“you may notice in this sketch that a gifted learner is like a big raindrop when it falls on a land it fructifies the land, it yields flowers and fruits and anything that benefits society.”*
- Influential; raindrops leave positive effects on the land they fall on by turning it green and helping trees to grow fruit. Likewise, a gifted learner also gives life to the class s/he is in through the ideas s/he releases and the energy and enthusiasm s/he spreads among the other students.

5.1.4.3 Science group's metaphors



Figure 5.21. A flower metaphor

As depicted in Figure 5.21, the science teachers at the D School gave an image of '**a flower**'. In talking about this image, the teachers stressed several features including:

- Being influential; according to them, a flower is known for its adorable fragrance, so wherever it is placed, it spreads its lovely fragrance. The same thing exactly happens with a gifted learner; if there is a gifted learner in a classroom, the whole class is affected positively.
- Being influential is related to the feature of being 'visible'. That is to say, like a flower, which can be easily recognised because of its beauty and nice smell, a gifted learner is usually easy to be recognised and spotted.
- A gifted learner's performance is often distinguished and different from his classmates.

5.1.4.4 Maths group's metaphors

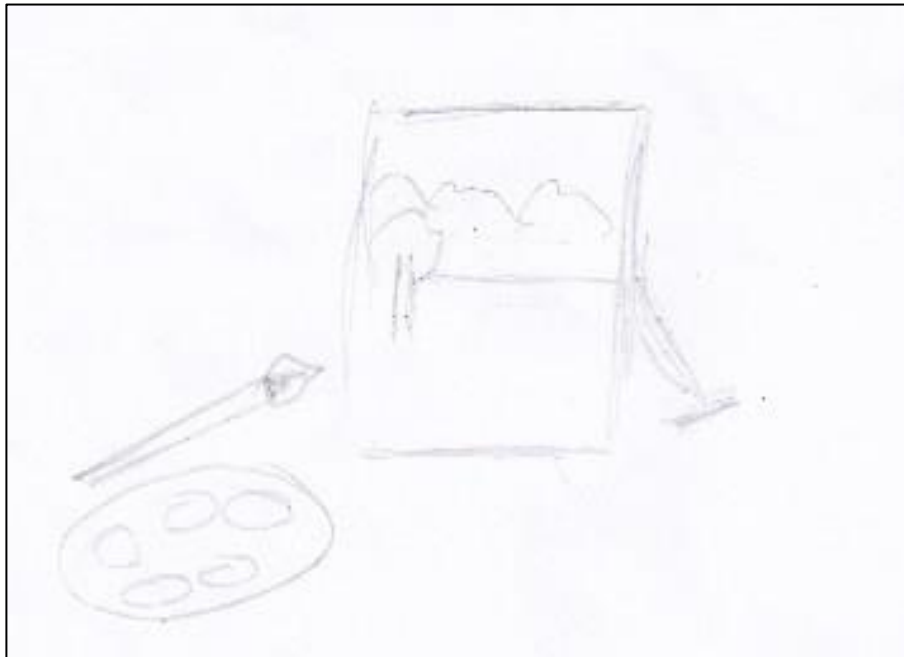


Figure 5.22. An artist metaphor

The maths teachers gave an image of an artist. From their perspective, a gifted learner resembles an artist in many ways:

- Like an artist, a gifted learner has highly imaginative skills. When s/he is given a task to do, s/he does not do it immediately, but s/he spends time in thinking and imagining what to do and how to do it in a unique way.
- A good artist's and a gifted learner's work are characterised by being distinguished, creative and unique, standing out from the work of others.
- Both characters (an artist and a gifted learner) are very selective. In creating his/her paintings, an artist tries his/her best to select the colours that best represent his/her thoughts and imagination in a painting. Similarly, when presenting his/her work, a gifted learner also tends to be very selective in term of the ideas or materials.

- Being different is strongly emphasised as a mutual feature between a gifted learner and an artist. In order for an artist to generate something unique and different, s/he should see the world in a way that differs from a normal person. Likewise, the outcome displayed by a gifted learner is a result of the fact that s/he views the world in a way that is different from his/her peers.

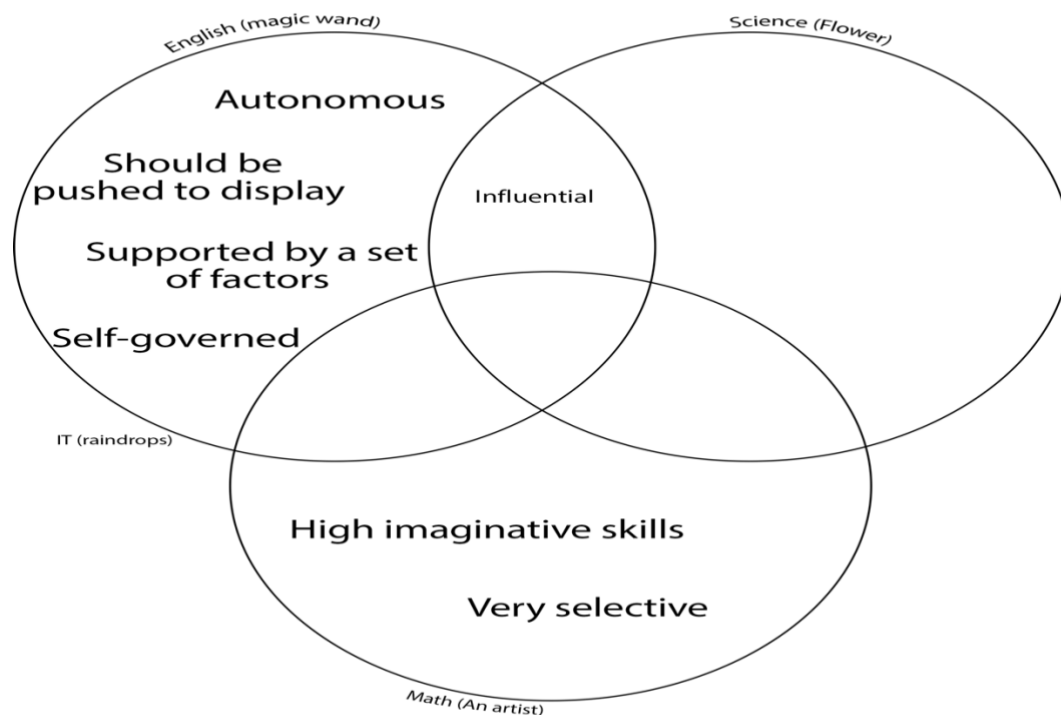


Figure 5.23. Shared attributes between School D's metaphors

Looking at Figure 5.23, we can make several remarks about the metaphorical thinking of teachers in the D School. Firstly, the middle empty shared part between the three circles of the Figure shows that there are no mutual attributes between the four subject groups and there are also no mutual attributes between the images suggested by the

IT teacher (raindrops) and the maths group (an artist). However, the science group (a flower) shares many attributes with the maths group (an artist), such as being easily recognisable, being creative, giving a distinguished performance and being different in what they present. In the same vein, there is one attribute that combines the images of the science group (a flower) and the IT teacher (raindrops) which, in turns, reflects these teachers' mutual belief about the influential power of a gifted learner.

To this end, the analysis of teachers' metaphorical images and the discussion of these images during the initial part of the focus group interviews with the teachers has helped us to construct an initial picture of teachers' implicit theories and beliefs of a gifted learner which can be summarised as follows:

- ❖ Teachers' metaphors generally indicated that Omani teachers hold a positive picture of a gifted learner. The given metaphors, the written descriptive explanations and the discussion of these metaphors during the interviews mostly reflect positive implicit theories. For example, a rainy cloud (Figure 5.1), a curious child (Figure 5.3), an oil well (Figure 5.14), a sparkling star (Figure 5.15), and a flower (Figure 5.21) etc., are cultural connotations of positive views and beliefs. For instance, when an Omani teacher who geographically belongs to a dry area represents a gifted learner as rainy clouds and raindrops, this representation indicates a pleasing connotation of life, fertilisation and becoming green after drought.
- ❖ Although the teacher groups in the four school cases gave quite different visual images, when discussing these images during the interviews many commonalities could be identified among their images. The diagrams above (Figure 5.8, Figure 5.13, Figure 5.18, Figure 5.23) can easily help in recognising

the commonalities among the given metaphors in each school. For example, as shown in Figure 5.8, though the three subject groups in the A School generated different metaphorical images, the middle-shared part of the Figure indicates many mutual characteristics between these images, such as being a quick information grasper, an information processor and a knowledge seeker. This may indicate how closely gifted learners are perceived by Omani teachers regardless of their schools' geographical locations, their subjects and their teaching experience.

- ❖ However, as we will see in the next section of the analysis, the in-depth discussion of teachers' IGT and beliefs of a gifted learner reveals that this positive picture of a gifted learner is not the complete picture. In addition to the positive theories, teachers also revealed some negative implicit theories of a gifted learner, such as being less sociable, selfish and difficult to satisfy.

The next section focuses on the analysis of the eleven focus group interviews that were conducted in the four school cases with the teachers of English/IT, maths and science. The purpose of this part of the analysis is to get a more in-depth understanding of teachers' ITG.

5.2 Teachers' ITG

This section presents the findings concerning teacher's ITG in an attempt to answer two main research questions:

RQ2- What implicit theories do cycle two Omani teachers hold about giftedness?

RQ3- How have cycle two Omani teachers constructed their implicit theories pertaining to giftedness?

This is done through analysing the 11 focus group interviews conducted with 51 female teachers in the four school cases following a qualitative content analysis approach by utilising an interpretive approach to unpack the underlying meanings of the generated data and organise it into codes, themes and categories. The qualitative content analysis approach focuses on providing a simple, but in-depth report of commonalities and differences in the data. Once the data are coded and organised, links and themes across the data are searched by me through each school case and across the four school cases to make a comparison (Miles and Huberman, 1994). As mentioned before, the four school cases were purposefully selected from different locations (mountainous, located near the BNGED and industrial areas) in the Governorate of Batinah North to see if schools' geographical location has an impact on teachers' ITG. The analysis revealed that, regardless of the schools' location, the ITG of teachers across the four school cases turned to be mostly interrelated. For example, teachers at different schools expressed a similar belief in not regarding high IQ and excellent school performance as basic criteria for giftedness. Add to that, the majority of teachers at all schools believed that giftedness is specific not general. Due to this interrelation between teachers' theories across the four school cases, a thematic structure turned out to be a better choice instead of structuring and organising this part of the analysis according to school cases.

The initial analysis resulted in a large number of themes and sub-themes; yet, for the purpose of organisation, the reader's focus and the aims of the study, many themes were merged and combined in a way to fit in with the themes outlined in Section 3.5 in the literature review chapter. It is worth remembering here that the idea of teachers'

ITG in this thesis represents theories, beliefs or conceptions Omani teachers expressed during the focus group interviews. As presented in Figure 5.24, the eight main themes found in this regard were namely:

1. Giftedness and gender difference: culture, religion and the brain's biological synthesis
2. Giftedness and the family's economic status
3. Giftedness: inherited? A gift from God? Or developmental?
4. Giftedness and academic excellence
5. Giftedness and high IQ
6. Giftedness: general or specific?
7. Giftedness and creativity
8. Giftedness is abilities or performance

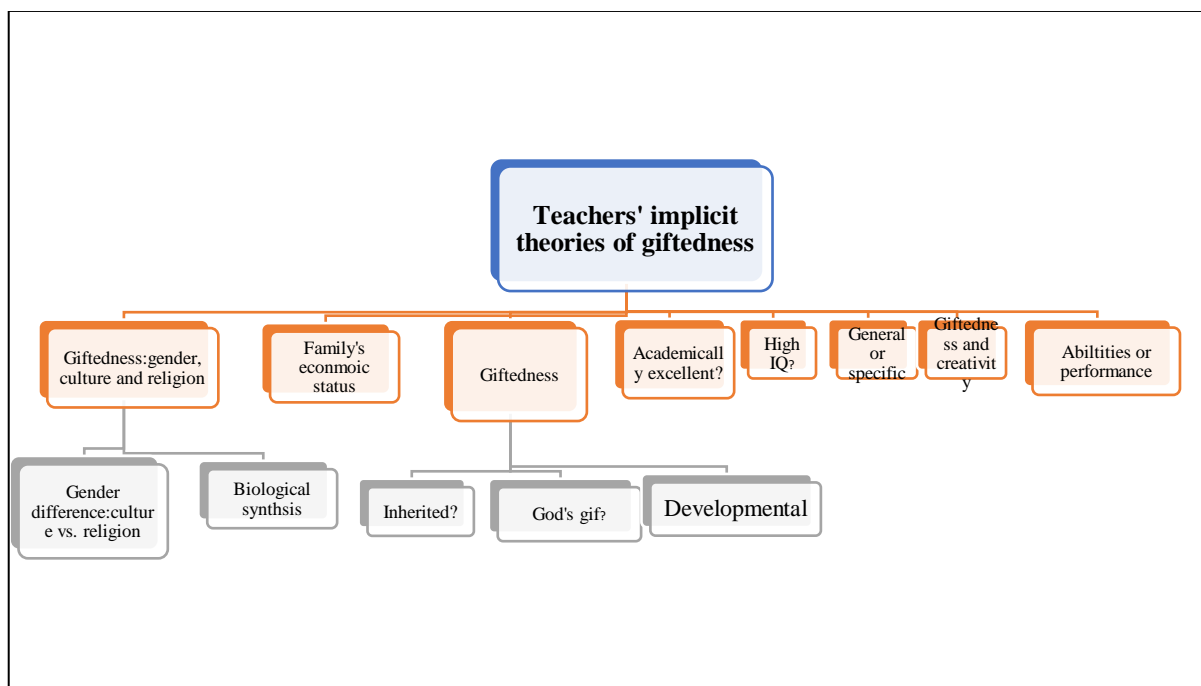


Figure 5.24. Eight themes of teachers' implicit theories of giftedness

5.2.1 Gender, culture, religion and biological synthesis

When talking about the issue of gender differences in relation to giftedness manifestation, it was hard to avoid talking about the role of cultural values and Islamic principles in shaping the concept of giftedness in Omani society. Generally speaking, the female teachers interviewed seemed to hold two main beliefs pertaining to the relationship between giftedness and gender:

- The first belief, which the majority of teachers seem to hold, assumes that both males and females are created with equal abilities, but due to some cultural norms and Islamic beliefs, males are more likely to manifest their gifts than females.
- The second belief assumes that there is a difference in the biological synthesis of men's and women's brains which, in turn, has created differences in the level of giftedness among males and females.

5.2.1.1 Gender difference: cultural or Islamic beliefs?

In support of the first belief, the female science teachers at the A School attributed the manifestation of giftedness among males more than females to the conservative nature of Omani society. According to them, women are generally shy and tend not to show their gifts. When asked about their beliefs concerning which types of domain both genders excel in, two participants said that men seem to be more gifted in maths and Science than women. They supported their position with their personal experience with their husbands:

Researcher: What are your views on those who say that males are usually gifted in scientific domains such as maths more than females?

Maryam: Yes, that's true, for example while shopping, my husband and I, I tend to

calculate with my fingers, whereas my husband gives immediate results

Researcher: Then, you have based your view on your personal experience?

Zahra: Hahah, the same thing happens with me as well

In the following excerpt, the maths and science teachers at the D School explained the role of social media in promoting male gifts over female gifts and they emphasised how cultural beliefs have influenced this:

Hajer: Social media might play a role here, the appearance of women on social media is still considered as a shame in our society, but for a man it is okay, as he doesn't have anything to lose.

Researcher: So, do you agree with Fadwa who said that men are given more freedom?

Hajer: Yes, this is our reality, men are granted more freedom than women

In this vein, the English and IT teachers at the A School also pointed to the influence of the nature of roles males and females take on within the family on the manifestation of gifts among males and females. This is illustrated in the following two excerpts by Shams (an IT teacher) and Amal (an English teacher) who used their experiences as wives and mothers to explain why our society has more gifted males than females:

Shams: In our society, men have more freedom, due to societal duties we as women have. As wives, we have to sacrifice a lot so that our husbands feel comfortable, this means they have more time and opportunities to practise and display their gifts, whereas as a woman, once I get married and have children, my responsibilities increase.

Amal: When I think about myself, I used to love drawing, but once I got married, my

gift has died because I got busy with my children and husband

A similar belief regarding the difference in roles was expressed by the science teachers at the F School. Although in talking about this issue, the science teachers were moved to talk about women in general, not only female students; this can still be taken as their ITG and its relation to male and female students. According to them, while it might be true that both genders could have been created with equal abilities, the nature of the multiple roles a woman adopts may limit her from enhancing her abilities and ultimately restrict her from manifesting gifts:

Muthla: Once a woman starts thinking about higher positions, she stops because she is restricted by the culture, where she goes and from where she comes, in addition to her kids

Ahlam: Yes, kids, home, husband, all of these prevent her from reaching her goals

It is worth highlighting here that the influence of culture seems more noticeable on giftedness manifestation among students in the rural mountainous school, the D School. In this vein, it is important to mention that in Oman co-education is applied in cycle one schools (Grades 1-4) where males and females study together, but the teaching staff and administrators are all females. However, as students move to cycle two (Grades 5-10) and post-basic schools (Grades 11-12) are gender-segregated. Unlike other schools in the cities and industrial areas (A, B and F Schools), a co-education system is implemented in the D School due to the geographical and demographical nature of the area it is located in. Therefore, students and teaching staff are mixed gender throughout all grades from grade one to grade 12. With respect to the concern of this study, the interviewed teachers at the D School believed that co-

education has negatively influenced giftedness manifestation. As an example of this influence, female students refuse to present in the morning assembly. This is because they are shy to present in front of male students and teachers; one of the maths teachers commented *“there are students at the higher grades like ninth, the tenth they frankly tell the school’s principal that they don’t want to present in the morning broadcast, I feel that if we are only females without the males it will be different.”*

In relation to culture, some teachers also pointed to the role of the environment in defining the nature and domain of giftedness a person possesses. Interestingly, the English and IT teachers at the A School have long teaching experience ranging from 9 to 15 years and most of them were transferred between schools in different governorates of Oman. The teachers’ long teaching experience in different governorates seemed to contribute to their theories on giftedness and specifically the types of giftedness domains as stated by Amal, an English teacher below:

Let me tell you something, giftedness is strongly related to the governorate, for example, if you go to Al Sharqya you will see gifts that are different from the ones you will see in Dakhilya. In Dakhilya governorate, giftedness is represented in reading, but if you go to a coastal governorate you will see different things related to the environment. However, if you go to Dhofar governorate you will see things related to animals. This means that the environment has a role; in Dakhilya governorate people have a surprising obsession with reading.

This belief of the environmental role on shaping people’s interest and domain of giftedness is also noted by Shams, the IT teacher at the A School *“Even in Batinah South you can notice a similar thing, they even give their children very strong names, they hold a belief that such names strengthen their personalities”*

Beside the cultural and environmental roles, some teachers also emphasised another critical dimension of the Omani culture; that is the country’s religion, Islam. The excerpt

below from the interview with the Science teachers at the B School demonstrates the difference in the teachers' views (who are parents themselves) regarding the permissibility of singing and chanting (inshad) among girls and boys:

Laila: I mean for example with a gift for singing, my society doesn't allow me to be a singer

Researcher: Do you mean it is okay for a boy to sing?

Laila: Mmmme, it can be allowed for a boy but not for a girl

Wala'a: For me, I don't want my son or daughter to sing but I can allow inshad

Sumaya: There are things that are allowed for boys, but for girls these things aren't allowed

Laila: Not in all societies

Wala's: I can help him to develop his gift in chanting (inshad) if he wants

Laila: And you won't help your daughter with that?

Wala'a: No, not with singing nor with chanting (inshad)

In line with the above, the maths and science teachers at the D School also talked about how parents at this area (a mountainous area) prevent their children from learning and practising music due to the cultural and Islamic beliefs that parents hold concerning music. From the cultural side, music is perceived as a shame and from the religious side it threatens children's Islamic principles. Therefore, as pointed out in the following excerpt, to protect the reputation of their family parents do not allow their children to be involved in music:

Halima: See in this school there are students who like to learn music and you can see how good they are at music, yet, they are under pressure, their parents don't allow them to learn music

Researcher: Why?

Halima: Because it is a shame and haram, thus there were students who withdrew from the Music Society

Hajer: I used to have students with low academic achievements, but they showed high skills in music

The maths teachers at B School also pointed out that some Omani families do not allow their daughters to travel alone due to an Islamic principle which says that it is not permissible for a woman to travel without a Mahram (her husband or unmarried male relative) because the Prophet (peace be upon him) said so. Though these teachers do not seem to be against such a principle, they admit that it can be a constraint to the development and manifestation of girls' gifts. Nonetheless, talking about the role of Islam with regard to gender difference in relation to giftedness, a maths teacher at the F School strongly argued that women and men are viewed equally in Islam with regard to their abilities. According to this teacher, males' abilities are manifested more because of the cultural and societal constraints which have been imposed on the society as Islamic principles, but in fact they are not part of Islam at all. To support her position, the teacher referred to Al Sayida Aisha bint Abi Baker (the prophet Mohammed's last wife) who was considered as a source of Islamic sciences. The prophet Mohammed (PBUH) used to advise his companions to consult with Al Sayida Aisha in his absence and after his death whenever they had doubts or problems. The following excerpt illustrates this teacher's position:

I believe that giftedness exists equally with both, but what has caused the inequality is the masculine nature of our society, which is the result of our own invented traditions. If we have really followed the Islamic approach, women could have excelled because the one who used to teach all Muslims was Al Sayida Aisha, the prophet Mohammed (PBUH) said: take half of your religion from Aisha. This means that if we have followed the Islamic principles we could

have outperformed men... so if we follow Islamic principles women can be at the top but with the existing oriental male society males are dominating.

5.2.1.2 Gender difference: A result of biological synthesis?

With regard to the second belief regarding the manifestation of giftedness between males and females, some teachers attributed the difference to the biological differences in the synthesis of men's and women's brains. For example, a teacher in the English and IT group at the A School commented:

I think the difference between males and females with regard to giftedness has something to do with the biological synthesis of their brains, it is well-known that a woman can think about multiple things at the same time, whereas a man can only concentrate on one thing, so may be that is what makes him master that thing.

The above belief sounds similar to the belief expressed by the maths and science teachers at the D School. One of the teachers commented "*Males are more gifted in all domains, nowadays, males are more recognised even in the domains such as designing, décor, fashion design and cooking which are supposed to be females' domains,*". Again, this was attributed to the female characteristic of being a multi-thinker, a characteristic that may prevent women from concentrating on one thing. On the other hand, men can only concentrate on one thing at a time; that is why they often show high performance in what they do and ultimately their giftedness is remarkably manifested; one of the teachers explained "... *We can think about multiple things at the same time, men can't because it is very unlikely for a man to do more than one thing at a time, so this may have a role in why giftedness is manifested more among males*". In the same vein, the English teachers at the D School also pointed out that there is a difference in the synthesis of men's and women's brains which can explain the difference in the gift domains among males and females. A teacher said:

Once, I read a scientific study which says that the right part of men's brain which

is responsible for the science functions are more active, whereas females' left side is more active, I don't really remember the details of the study, but it is around this, males are more creative in the right side of the brain, while females are more creative with the left side.

The science teachers at the F School also expressed a similar biological belief concerning gender difference. One of the teachers supported her belief by referring to her university days where most of the staff at the College of Science were male:

Muthla: If we go back, for example, to university days, most of the tutors who taught us Physics, Chemistry and Biology were men, there were very few women, so could this be explained by the fact that women's abilities in Science are lower than men?"

Ahlam: Or brain?

Researcher: Brain? What do you mean?

Ahlam: I am not sure, but I have heard that men are more talented in Science and Mathematics; they have more intelligence than women

Muthla: Yeah, as I told you the Physics section was dominated by men

5.2.2 Family's economic status

Teachers' responses to the question relating to the relationship between the family economic status and giftedness fluctuated. At the beginning, most teachers said that generally giftedness appears more among families whose economic level is low, but when they moved to talk about their own students, they claimed that most of these students are from families with a middle or high economic status. Teachers seemed to base their initial position on their reflection about what they have noticed in their local community. They labeled those people who tend to make and promote things through social media channels as gifted. According to them, these young entrepreneurs are usually driven by their family's financial needs, so they try to find out what they are good at and make use of it as a source of income for the family. In

the following excerpt, the science teachers at the A School expressed the belief that the poverty of the family has helped in the manifestation of giftedness:

Researcher: Do you think that the family's economic status plays a role in the manifestation of giftedness? In other words, giftedness rarely appears among poor families, doesn't it?

Muna: Not necessary, there are gifted people who belong to poor families.

Maryam: Yes, I agree, giftedness appears more in poor families

Researcher: Why do you think so?

Maryam: Gifted learners are usually from poor families, I am not talking only about this school

Researcher: Okay, why do you think so?

Maryam: I don't know, may be their economic status leads them to this

Sheikha: See, many gifts have been presented recently through WhatsApp such as designing, decoration, cooking and tailoring; they promote their products to gain money, so they are driven by their needs

However, as the next excerpt revealed, when teachers were asked to think about their own students whom they think are gifted, the answers changed:

Researcher: What about the students whom you have taught, and you think they are gifted, to which families they belong? I think you know their families and the economic level

The whole group: The middle

Sheikha: The middle or high

Maryam: Yes, I agree

Researcher: You said the middle or the high. Does that mean giftedness is rarely

displayed among students coming from families of low economy?

Sheikha: From the examples we have seen in this school, I can say YES

Thinking about this sudden change in the teachers' responses has made me wonder now, which students these teachers were thinking about at that moment of the interview; were they thinking about students with high academic abilities or students with other domain abilities? A question that I was supposed to pose on spot, but unfortunately, I did not. Nevertheless, other teachers across the four schools also seem to hold contradicting theories concerning giftedness and the family's economic status. Some teachers (maths teachers at the B and F Schools) hold the belief that giftedness is more likely to appear among the children of poor families because these children are forced by their families' difficult circumstances to make use of their abilities. The following excerpt by the B school maths teachers explains how this happens:

Aisha: Desires, the student's desires, I mean some families whom I personally know have very difficult financial circumstances, but on the other hand all the children in these families are distinguished and high scorers. Why? It is because of their strong desire to challenge the circumstances and they have the ability to adapt to these circumstances

Naeema: Yes, their desire and inner motives as well

In line with the above belief, in the following excerpt, the F School maths teachers compared the situation of a child who lives in a rich family and one who lives in a poor family. They supported their position with a famous proverb:

Basma: I feel that the circumstances that a poor child passes through force him to be

more creative and ultimately, he becomes gifted because he wants to get out of his existing world to a better one, whereas a rich child has already had a wealthy life, and everything is available to him

Amina: We say in Arabic 'necessity is the mother of invention', this means that necessity teaches the person how to invent. In the past, societies were not as developed as now, and the family's education was low, however, there were gifted people who were very distinguished, so they were driven by their needs. They wanted to reach a certain goal, so they had the persistence

Huda: I agree with them, need and poverty lead to creativity

Similarly, the maths, science as well as the English group teachers at D School hold a belief that giftedness is not exclusive to children of rich families. The teachers based this belief on their experience at this mountainous school where the economic-status of most families is very low, but there are still recognisable examples of gifted students. In contrast, many teachers in the four schools believe that giftedness is more likely to appear among children of economically stable families. As revealed in the next excerpt, the majority of the Science teachers at the B School seemed to hold such a belief; they attributed it to many factors, such as the education of parents, the provision of materials and the interests of children:

Laila: It is quite true that a wealthy environment gives more attention to giftedness

Wala's: It could be because people from rich environments are well-educated

Laila: Whereas, poor environments can kill the gift even if the child owns it, it can kill it

Sumaya: This is because the child might get busy with other family duties

Wala'a: The provision of material resources plays a role, the child might need

materials, but s/he can't get them

Researcher: Then does that mean the possibility of giftedness manifestation among families with good economic-status is greater?

The group: Yes, sure it is greater.

In the same vein, a maths teacher at the B School indicated that giftedness is more likely to appear among children of good economic-status families and she justified her view through the example below:

... for example, let's say I have a daughter who displays signs of artistic giftedness, if my financial status is good, I will be able to enroll her in ateliers or to get a special teacher to support her, so I can develop her gift, but a student of a family with a low economic status won't have such facilities, he might still be able to display part of the gift but not as good as the other student.

5.2.3 Giftedness: Inherited, a gift from God or developmental?

5.2.3.1 Inherited?

A common view amongst teachers in the four schools is that giftedness is related, to some extent, to heredity. The science teachers at the B School expressed the belief that although giftedness is developmental in its nature, there is a role for heredity in its existence. To support their belief, the following two teachers gave an example from their observation of families in their society:

Wala'a: See, for example, the giftedness of poetry is inherited,

Sumaya: That's true; I also feel that poetry is inherited but it can also be developed through excessive reading in this area.

Researcher: So, as I understand, you think the ability to write poetry is inherited?

Wala'a: Yes, calligraphy as well, in some families, you can see the father's handwriting is very similar to his children, I have sisters whose handwriting looks very similar, they have very nice handwriting, hahaha.

In the excerpt below from the interview with science teachers at the A School, the teachers echoed the same view and they seemed to base their view on their own personal experience:

Maryam: Heredity has a role

Researcher: Have you observed that?

Maryam: A lot

Researcher: Like what?

Maryam: Shall I tell you about my experience?

Researcher: Go ahead

Maryam: I think I used to be gifted in putting hina (a form of body art, in which decorative designs are created on a person's body, using a paste, created from the powdered dry leaves of the henna plant), but I got sick, so I gave up putting hina, but I wonder where I got this from. My eldest sister used to put hina but she stopped. I hadn't seen my eldest sister while she was putting hina as she had stopped when I was a little child; yet I found myself good at putting hina.

Sheikha: I also think the same, heredity does play a role because sometimes a student's dad or mum may have a poetry gift and it is very likely to find their daughter excelling in the same domain, a similar thing can be said about calligraphy, if the father is a calligrapher you will surely find one of his children is a calligrapher as well.

The F School science teachers talked about some neighboring families where all the members shared the same gift. As demonstrated by the following excerpt, the given examples foster the role of genetic influence on giftedness:

Muthla: For example, our neighbors are gifted artists, the whole family members are great artists, does this mean they learnt from each other?

Maysa: No, in this case I feel it's heredity

Muthla: Even their cousins who do not live near them also have this gift

Zainab: Yeah, even with my family something like that happens, I mean our eldest siblings used to excel at something, so we found ourselves and their children excelling at the same thing, so does that mean genes contribute?

Muthla: Yeah, genes affect

Zainab: Ummm, I am not sure if it is because of genes or other factors

Muthla: Surely genes and it is also fostered by interests

Maysa: Yeah, genes

The English and IT group at the A School and the maths and science teachers at the D School held a similar belief about the relationship between giftedness and heredity. Yet, teachers in the both groups went further to say that it is not necessarily that gifts are passed to children from their immediate parents, since genes of a certain gift can be passed to children from their grandparents or even uncles. This is revealed in the following excerpt from the interview with the English and IT teacher at the A School:

Researcher: Do you think that giftedness is inherited?

Amal: Well, I think that's true; I mean children get it from the mother or the father

Researcher: Maybe none of the parents is a painter, but their child is a gifted painter?

Amal: They can even get it from their grandparents or uncles...

The belief of the maths group teachers at the B School accords with the belief of the above groups. The following excerpt from the interview indicates that children can inherit the gift from any of their ancestors:

Anwar: The gift could have existed with one of his ancestors

The whole group: Yes, that's true

Researcher: So, do you mean that giftedness is related to heredity?

The whole group: Yes heredity

Naeema: Yes, very possible, if you investigate it, but initially you might think that this person belongs to an uneducated family but if you look at his grandparents you will find that they were highly educated

Ala'a: For example, when kids are born with blue eyes or green eyes he might have got it from one of his grandparents, so it might be the same thing with gift

Naeema: Exactly, it could have been inherited

Although the maths teachers at the F School believed in the role of heredity in the existence of giftedness, they had a different explanation for this role. According to them, the inherited genes might not be the genes of a specific domain of giftedness, but they are of certain qualities that assist the person to show giftedness in that specific domain. This idea can be understood more through this excerpt:

Amina: Sometimes, we watch on TV shows when a person is asked about how s/he has become a singer, s/he says my father was a composer, my mum or grandpa were signers, so aren't these genes?

Huda: Of course, other factors had interfered, but surely there were motivating genes to such gifts

Researcher: So, you mean s/he has inherited a predisposition?

Huda: Yes, s/he has motivating genes that assist this giftedness

Similarly, the English group at the F School also pointed to the contribution of inherited genes to giftedness. However, one of the teachers stressed that these genes cannot

work without a motivating environment:

In my view, inherited genes play a role, but the environment brings out the giftedness. For example, you often see that the parents of those eloquent students are eloquent, I mean I strongly believe that genes are a factor but also the environment encourages it...

5.2.3.2 Allah's endowment?

In fact, the belief of giftedness as an endowment from Allah (God) seems to outweigh the belief of genetic heredity. This is not to say that participants totally deny the role of heredity because even most of those who perceived giftedness as an endowment from Allah still believed there is an inherited contribution. For instance, the English and IT teachers at the A School seemed to hold the belief that giftedness is something given to some people by Allah:

Researcher: What do you think of those who perceive giftedness as something given to some people by Allah?

Shams: I definitely agree

Eman: Me too, I strongly agree with this idea

Likewise, some maths teachers at the B School believed that giftedness is Allah's endowment given to some people, but they also believed that this endowment cannot manifest by itself; it is only activated by some personal and environmental factors. As an example of these factors, in the next excerpt, a teacher maintained that the mathematical gift of a student she was thinking of could have been stimulated by the good mathematical foundation he received during cycle one years (Grades1-4):

Aisha: I feel that a proper foundation has a role, a student who has the ability to tackle complex mathematical questions should have been taught by a very excellent teacher during cycle one years

Researcher: So that means if a group of students have had a similar instruction and

they were taught by the same teacher during their cycle one classes, we are supposed to have a group of gifted learners?

Aisha: No, what I meant is that Allah has already given this gifted learner this gift, but it has been provoked by something during cycle one years that helped the given gift to manifest.

Researcher: So, you are saying already from Allah', how? Can anyone explain?

Anwar: She meant something helped the gift to appear

Naeema: Internal drives

Aisha: Internal drives and the environment as well

Researcher: What do you mean by 'environment'?

Aisha: The family and the school.

Abeer: Yeah, the family's care at home, the support they give to the child, the family knows the child more than anyone else.

While some science teachers at the F School acknowledged the role of heredity, some of them believed that giftedness is Allah's endowment. This is reflected in the following argument among the teachers:

Maysa: Let's assume that you have five people from the same family, a mother, daughters and sons.

Muthla: I feel they learn from each other, you might see now that a son does what his mother likes to do, and she continuously practises this in front of him

Maysa: But for example, my sister is a great painter, but I am not.

Muthla: Maybe you didn't like it, so you didn't want to learn.

Maysa: No no, it's not because I don't like it, but because I don't own it.

Ahlam: Hahaha, it is maybe because currently you are teaching about genes so that's

why you think so.

Researcher: Haha, so what about giftedness as an endowment from Allah?

Ahlam: Yeah, this might be true

Researcher: Could you clarify more?

Ahlam: I mean this person is given this gift from Allah, Allah gave it to him; it is not genes

Researcher: So, you mean it is not a result of heredity?

Muthla: For some characteristics we cannot say whether it is inherited or learnt, a gift may have existed among the family members, so he/she acquired it, but s/he could have also had it, but it has disappeared

Ahlam: Yeah, so it is acquired

Some English teachers at the D School also supported the belief that giftedness is more likely to be an endowment from Allah rather than genetically inherited. This is indicated in the teachers' discussion concerning a student in grade four who showed extensive geographical knowledge about countries:

Khadeeja: Giftedness is Allah's special gift, which He deposits in you

Muna: That's true Khadeeja, if we say that sport gifts are from Allah, the same thing can be said about academic study, you mentioned that student who could memorise anything related to countries, where did he get this knowledge? We all know that they just start studying social studies in grade two and three, right? So, where has he got this information from?

Despite the fact that the majority of the teachers believed that giftedness is the result of either heredity or Allah's endowment, they also held the belief that without the

assistance of a set of factors, giftedness cannot be manifested: a view that will be elaborated on in the next section.

5.2.3.3 Developmental?

Although the interviewed teachers seemed to hold different implicit theories concerning the role of heredity and giftedness as Allah's endowment, there was a consensus among most teachers across all subjects in the four schools that giftedness is a developmental construct. They perceived giftedness as a construct that develops and nurtures with the assistance of various environmental and personal factors. In the example given by Sheikha (a science teacher at the A School), she believed that the student whom she thought of as gifted was born with innate abilities, but if this student's family had not discovered her abilities, her gifts would not have manifested:

Researcher: So, she is multi-gifted?

Sheikha: Yes, as I know this student, I can attribute this to one thing. It is true that she is instinctively gifted and given this by Allah, but also her family is supporting her, if I realise that my daughter is gifted at something, why not foster it because giftedness is basically developmental?

Researcher: Are you in contact with her family?

Sheikha: Yes

Researcher: Do you know if they are really supporting her?

Sheikha: Yes, they enrolled her in a Quran center and at the school a Quran teacher usually listens to her and supports her, and they sent her to a well-known Quran reciter such as Sheikh Al Bahnsawi and other things, in addition to summer programmes, so she was instinctively gifted, but she was lucky to be discovered by someone who supported her, and she has become recognisably gifted.

In the following excerpt, the science teachers' ITG at the A School accorded with Sheikha's ITG, which says that a gifted person (but not everyone) was born with innate abilities. Nonetheless, they also believed that everyone can be gifted because everyone has innately a specific gift, but it all depends on the effort directed towards nurturing and developing that gift. The following excerpt illustrated these teachers' theory:

Awatif: Each person has a gift, but s/he needs to develop it

Researcher: So, do you think that all people have gifts?

Awatif: Yes, but one should develop it, one needs to know what thing s/he is interested in and practise it, if s/he doesn't then the gift won't be manifested

Zahra: Yeah, s/he should discover it first and then try to develop it

Many teachers echoed the above view concerning the role of 'practising'. For instance, the science teachers at the F School as well as the science and maths teachers at the D School expressed the belief that 'practice' is the key of giftedness manifestation. This was indicated in by Muthla (a science teacher at the F School) as she commented "*... as much as you practise the gift, it will grow, but if you don't care about it and if you don't nurture it, it won't manifest, it might exist in you but won't appear.*"

With regard to the role of practice, some teachers also pointed to the role of practising through imitation on the development of giftedness. For instance, some maths teachers at the A School said that giftedness is more likely to be a result of imitation rather than biological genes. They argued that in some families, siblings usually like to imitate each other or their parents and that is why you can see that more than one member of a family are gifted in the same domain. In relation to this, an English teacher

at the A School commented “*Well, it can be a gift from God, but sometimes the person imitates and acquires the gift from his family, that’s why you see many family members are similar at certain things*”. This teacher wanted to say that a person might not have genetically inherited the gift from his/her parents or ancestors. Instead, s/he was growing up among people who owned a gift, so s/he imitated them and gradually s/he mastered that gift and ultimately, s/he was labeled as ‘gifted’. The B School’s maths teachers indicated that sometimes even if a child was not born with a gift, s/he, at a certain stage of life and with the help of some factors, can display giftedness in a specific domain. In this sense, the teachers regarded giftedness as a completely developmental concept:

Researcher: So, you think Allah gave it? But what about a normal person who might not have got such a gift from Allah?

Anwar: A gift may still manifest.

Naeema: This means if s/he is surrounded by the other assisting factors, the gift can manifest and enhanced.

In Section 5.2.2, many teachers talked about how the family’s economic-status plays a big role in the development of a child’s giftedness. In relation to this, the science teachers at the B School and science and maths teachers at the D School emphasised how the environment (the family and the school) can support or hinder the manifestation of giftedness. This idea was stressed by Laila, a science teacher at the B School, as demonstrated below:

Laila: You know that girl; her name is Wafa I guess, no no Azza

Researcher: Yeah, mashallah, she appeared recently on UAE TV channels

Laila: But who was behind her? It wasn’t the school but her family, the first appearance

for her was on the programme of 'The Poet of Million' (Shaer Al Mallion), it wasn't the MOE or the school who got her to participate, but it all started from her family

Likewise, the F School maths teachers also expressed belief in the developmental nature of giftedness at several points of their interview. For example, as discussed in Section 5.1.4, the teachers gave an image of a child climbing upstairs (Figure 5.17) and they explained that the steps of the staircase represented various factors that surround a child at different stages of his/her life. These factors such as genes, family, schools, friends and others are considered to be powerful contributors to giftedness development.

5.2.4 Academically excellent?

A common view amongst interviewees is that a high level of academic achievement is not a criterion for a student to be judged as gifted. For instance, the science teachers at the A School asserted that a gifted learner does not have to be academically outstanding. To support their view, they gave an example of Isaac Newton, an English mathematician, astronomer, theologian and physicist who was widely recognised as one of the most influential scientists of all time. Reading about the early life of Newton, he went through difficult times during his school time and he was removed from school, but later Newton surprised the world with his gifts. The interviewees believed that many students can be just a copy of Newton. They might be gifted in a specific area and they are totally focused on learning and discovering things related to that area, so much so that they neglect other areas. According to Sheikha, a science teacher, a student's excessive keenness on an area of interest may negatively influence his/her school performance and she justified this in the following excerpt:

...for example, if we thought of Newton, he was not academically excellent, but he was gifted, and he manifested this later. This means a gifted learner may

display a gift in a specific area and this may negatively affect other areas, so this means that we cannot confine him to a specific domain, he might be gifted in something but weak in another; each one shows himself in something.

Similarly, some maths and English teachers at the F School as well as the science and maths teachers at the D School expressed a quite similar belief. The F School maths teachers indicated that most students whom they think are gifted do not necessarily score highly in maths, but they may display creative performance on other areas. To demonstrate this view, Amina, a maths teacher gave an example of one of her students:

For me, giftedness is when a student comes up with a creative thing, I used to have a student who was very creative in painting and artistic work, she used to outperform her peers in this, yet if you look at her academic achievement, it wasn't that outstanding, you can say she was good. However, if you see her artistic work you will be amazed, that's why she was often asked to design school's displays, she was also known for her recognised arts and crafts.

To clarify their view regarding giftedness and high academic achievement, two of the F School English teachers pointed to an example of a student whom they had both taught. According to them, this student was weak in English literacy as her reading and writing was very weak, but, one day, this student surprised them with her astonishing performance in the morning assembly:

Ziyana: I remember I had a student who was weak in reading and writing and I thought she wasn't self-confident. However, one day she delivered a poem, imagine she was doing that without reading from a paper, Amani and I were wondering (Amani is another teacher participant), where she got the courage to do this in the morning assembly?

Amani: Yes, that's true, she impressed me and when I went to her class, I praised her in front of her classmates

Researcher: So, do you think she has a gift in poetry?

Aseela: Yes, or maybe a gift in facing an audience

In this vein, the science and maths teachers at the D School supported their views regarding the relationship between giftedness and academic excellence with an example of a student from their school, whom they think has a gift as a mechanic:

I think high academic achievement is not a criterion for giftedness, I mean there are students who barely know how to read or write, I personally know a student who doesn't know how to read or write, but you will get amazed when you observe him working with cars, just give him a car and ask him to fix it

The English teachers at the D School seemed also to hold a similar view concerning the relationship between academic achievement and giftedness. According to these teachers, excellence in academic subjects is not a criterion to judge a student as gifted or not; this is because people display different levels of eminence in different abilities.

One of the teachers (Khadeeja) gave the following example to prove this view:

...academic abilities differ; to be academically excellent doesn't mean I am not excellent in other areas. I might have gifts in other areas. When I was teaching in Al Khaboura, I used to have a student in grade four; there was a unit on countries, nationalities and flags. This student could memorise all the flags and the capital cities of the countries, in addition to some information about most of the world countries. He used to enrich the lesson with the information he gave...

Similarly, the maths teachers at the B School also seemed to hold a similar belief. The teachers justified their beliefs with the fact that a gifted learner whether in maths or other areas might not be recognised from their classroom participation. However, as demonstrated in the excerpt below, when s/he is given a chance to work independently or on written tasks, s/he may display symptoms of giftedness:

Naeema: Academic distinction is not a condition for giftedness

Abeer: That's true, sometimes the person is not recognisable, but when you check his

written work you might be surprised by his high score, I previously met an example like that. When I first started teaching, I had a grade six student whose performance was never noticed, but I realised that her scores in written work were really high, so I tried to encourage her. She kept contacting me till she finished her school last year and she got a scholarship to study in the USA.

While most teachers seemed to be convinced that an outstanding classroom performance is not a criterion for giftedness, some teachers admitted that, as teachers, they are usually attracted to students who are academically distinguished. An English teacher at the A School noted this:

Not all gifted learners are visible especially those who are not doing well in their studies and the teacher is not able to discover their gifts. For me, who attracts my attention as being gifted is the student who is academically distinguished regardless of other things. This is the reality, the gifted is the outstanding. I can't recognise those students who are gifted in other areas unless they make themselves academically visible, this is actually the truth of what is happening.

In relation to this, the IT teacher at the A School claimed that there is a difference between how a teacher perceives a gifted learner and how a normal person perceives him/her. This difference was demonstrated below:

As a teacher, I personally, define a gifted learner as one who is academically outstanding, whereas as a personal view I believe that a gifted student is someone who performs creatively in a specific domain, I mean s/he has a gift that s/he can be visibly creative in, but in the education field the gifted student is one who is academically distinguished.

5.2.5 High IQ and giftedness

Talking about the relationship between a high IQ and giftedness, teachers seemed to collectively agree that a high IQ should not be considered as the only criterion when judging giftedness; teachers gave a number of reasons for this. The science teachers at the F School stated that when talking about IQ, we need to be clear whether we are

talking about a person who is gifted in a specific domain or a person who is academically outstanding. This is because as argued by Ahlam, a science teacher:

There is a difference between a student who is gifted and a student who is academically excellent. The academically excellent student needs to have a high IQ and this what helps him to score highly and that doesn't mean he is gifted because giftedness does not require high IQ

Not unlike this view, the English and IT teachers at the A School and the science teachers at the F School based their belief on the examples of Down syndrome people who can show giftedness though they are known for their low mental abilities. The science teachers at the A School also expressed, a similar view in the excerpt below by saying that there are many examples of students who were classified as having learning difficulties, but they showed symptoms of giftedness:

Maryam: Let me give a simplest example I have a student with learning difficulties; she can't read or write, but if you see her workbook you will be astonished by the way she has tidied it up, you will be amazed at how creatively she decorated it

Researcher: Maybe someone does it for her?

Maryam: Nooooo, she does all of that in the classroom, she draws and colours, but she can't read or write

In addition, many teachers argued against the idea of considering a high IQ as a criterion for giftedness because some domains of giftedness do not require a high IQ. This notion was expressed by the science teachers at the B School in the following excerpt:

Researcher: One of the diagnostic tests is the IQ test which tests the general intelligence of a learner, so from your point of view, do you think that a gifted learner should get a high score in this test?

Laila: It is not a condition, we have students with low achievement levels, but they show giftedness in a specific domain.

Wala'a: I also say the same thing. It is not necessary for a gifted learner to be highly intelligent

Researcher: Okay, could you give examples of the giftedness domains you are talking about?

Laila: Drawing or being a good speaker, she can speak eloquently but her study achievement level is below average.

The above view was also echoed by the science teachers at the A School as well as the maths teachers and English teachers at the F School. An English teacher at the F School commented, *"Intelligence may identify the type of giftedness. There are gifts which do not require a high IQ and other gifts do require high intelligence"*. Likewise, in responding to my question about IQ and giftedness, a maths teacher at the F School responded *"No, she might not be intelligent but she still can display a gift, for example, a singer doesn't need to be so intelligent, the same thing for a chanter (inshad), and a painter as well, it is all a matter of a skill which they have master and practice"*. In line with this, the science teachers at the A School pointed to examples of giftedness domains that do not require high IQ:

Researcher: Do you think that a gifted learner should have a high IQ?

Sheikha: Not necessary as we have students with very low achievement scores, but they display a type of giftedness in a specific domain.

Maryam: Yes, it isn't a condition I think.

Researcher: Could you give examples of such domains you are talking about?

Sheikha: Drawing and giving speeches,

Maryam: Yes, delivering speeches

Awatif: In the technological field especially boys, their academic level is below average, but they are creative at technology

To sum up, it is worth pointing out that while many teachers argued that a high IQ is not necessary, they believed that a gifted learner should have a special type of intelligence in the domain of his/her giftedness. This indicates how Gardner's Theory of Multiple Intelligences (TMI) has influenced teachers' thinking. As stated in the next excerpt, for example, in which the B School Science teachers talked explicitly about the TMI:

Researcher: What do you think of those who say that a gifted learner is characterised by having a very high IQ?

Laila: Not necessary, it could be in a specific domain, but zero in other domains

Kifah: Yes, it is possible that s/he is intelligent in his/her domain of giftedness but in other domains he/she has no intelligence.

Wala'a: Based on the theory of multiple intelligences, there is more than one type of intelligence.

Researcher: Yeah, you mean the theory of multiple intelligences.

Laila: Yes, s/he might have a high level of intelligence in one domain but in other domains their intelligence is low

The influence of the TMI on teachers' thinking was also noticeable among science teachers at the A School as can be understood from this excerpt:

Zahra: Yeah, I know students who are gifted in music, but the level of their school achievement is not that good

Researcher: So, are you relating IQ to high school achievement, I mean if she is intelligent she will do well?

Zahra: Yeah, I mean the student may be gifted in a specific domain, but that doesn't mean she should be academically good; she might have intelligence only in the area of her giftedness

5.2.6 General or specific?

When asking teachers whether they think giftedness is specific or general, the majority of the groups said that it is specific. When discussing this point in-depth with the teachers, the influence of the TMI was clearly noticed in teachers' responses. This was evident in the next comment by Eman, one of the English teachers at the A School:

... I feel giftedness is specific as no one can perform creatively the same in all domains. For example, we have seen many athletes who have sporty intelligence, so this is their giftedness domain. Another person is eloquent because s/he has social intelligence. For example, I am not gifted in drawing, but I have another, so this means giftedness is specific.

The maths teachers at the A School and the English teachers at the D School also expressed the belief of giftedness as a specific domain and they proposed several ways to recognise the giftedness domains. For instance, an English teacher at the D School said that a teacher can recognise a student's gift through the work s/he creates during the lessons. Some teachers added that, as teachers, they can realise a student's area of giftedness through the interest a student shows during classes. A maths teacher at the B School noted below that one of the clues to identify a student's domain of giftedness is his/her keenness to ask about relevant details:

Naeema: She is interested in the details and this is noticeable through the questions she poses.

Researcher: Do you mean the details of the taught materials?

Naeema: No, it is not only the details of my subject; I mean the details of the domain she is gifted in such as make-up or tailoring

On the other hand, the science teachers at the A School expressed a belief of specific domain of giftedness, but they also thought that a student can be double-gifted if s/he combines academic excellence and a specific domain gift. This was reflected in the excerpt below:

Researcher: So, from your talk, I can understand that you are saying that giftedness is specific not general?

Maryam: Yes, it is specific

Researcher: How?

Maryam: I mean, to be judged as gifted it is not necessary for a student to show excellence in all domains; even if a student has a drawing gift, I can still label him/her as gifted, s/he might not be excellent in the school subjects, but s/he displays a gift in drawing.

Sheikha: Sometimes, a student can have excellence in both: academic study and a specific area, in this case, these are the really gifted students.

In relation to the idea of double giftedness, a science teacher at the F School commented that while she still considers students who show giftedness in one domain as gifted, she believed that students who display giftedness in many domains (general giftedness) as really gifted. The below excerpt by Muthla, a science teacher, demonstrated such a view:

I mean, this student you can see him/her in the morning broadcasting, you can find him/her in arts and you can see him/her everywhere, as you know in our context, giftedness can be manifested through the school societies and sometimes you can see their names in the lists of gifted learners, such students

are those I can consider as really gifted as they have a general gift; they have more than one gift which they combine together, whereas the student of one gift is still considered gifted but in a specific domain.

5.2.7 Giftedness and Creativity

When teachers attempted to define 'giftedness', most of them mentioned the words 'ibda'a' or 'mubda'a' in their definitions. The closest English equivalent for these Arabic words is creativity or a creative person. I had intended to ask teachers about the relationship between creativity and giftedness at a later stage of the interviews. However, as teachers started talking about this earlier, I found it a good chance to pose the question concerning creativity on the spot. In this regard, a variety of views were expressed when teachers were asked about what the term 'creativity' means to them and how they think it relates to giftedness. Among the given definitions by the majority of teachers was that a gifted learner is one who always comes up with creative outcomes. This definition of a gifted learner implies that creativity is a basic criterion to judge whether one's work is gifted or not. To dig deeper, the teacher participants were asked to explain what they meant by the term creativity and the list below includes the various meanings they all expressed. Among the expressed meanings are to:

- be a critical thinker/ a problem solver
- deal with problems in unexpected ways
- connect and integrate the learnt ideas in an interesting way
- be fluent in giving ideas
- be unique in what he/she displays
- master what he presents to the teacher
- avoid repetitive ideas
- be keen on creating products different from peers

- pay attention to details
- be very precise
- be imaginative

5.2.8 Giftedness: Abilities or performance?

To find out if teachers perceive 'giftedness' as an ability or performance, teachers were asked if they think that to label a student as gifted, s/he should display the potential he possesses or not. The majority of teachers collectively agreed that in order to label a learner as gifted, s/he needs to show them something because giftedness can only be recognised through what is seen. The following excerpt presents the responses of the science teachers at the F school, who argued that while it is true that a gifted learner has innate abilities, these abilities (they mean giftedness) are nurtured and developed through practice which is translated into different forms of performances:

Muthla: I feel both, a gifted learner is given innate abilities from God, but these abilities are only made visible through performance, as much as you practise, your gift increasingly develops, whereas if you don't look after the gift and you don't nurture it, it won't appear. You might have it, but it won't appear

Researcher: So, can I judge this person who has the abilities as gifted?

Muthla: I have to see something

Ziyana: Yeah, there should be something visible

Ahlam: Yes, how can I judge him as gifted if he is not displaying something?

Zainab: Suppose Muthla has a gift and she doesn't display anything; how can I know it?

Likewise, the English teachers at the D School also held the belief that giftedness is strongly related to remarkable performances. According to them, even if a person is

diagnostically judged as being gifted because s/he has hidden abilities in a specific domain, such abilities remain useless or even die if they are not translated into visible performances. Similarly, the F School English teachers emphasised performances over abilities when judging whether a learner is gifted or not. While talking about this point, teachers raised the issue of how parents' judgment concerning giftedness might be different from teachers' judgment; yet both judgments are based on the child's observable performance. The teachers said that sometimes parents inform teachers that their child shows symptoms of giftedness at something and they ask teachers to support the child. The teachers believed that this child must have displayed some behaviour at home that made his/her parents believe that s/he is gifted. A similar thing happens to teachers, to judge a student's giftedness at the school, a teacher needs to observe or see some forms of behaviour. Aseela, an English teacher, illustrated how parents' and teachers' tools of judgment may differ by saying:

A mother wouldn't have said that her child is gifted unless she had seen something, parents may come to me and tell me that their child likes to repair appliances at home, however, if you look at his/her performance in science it is very low, so the mother's judgment was based only on what she observed at home.

To conclude, this section of analysis highlighted teachers' major implicit theories, views, beliefs and conceptions pertaining to giftedness mainly through analysing teachers' responses in the eleven focus group interviews. The third research question aims to find out the sources of the ITG which Omani teachers have expressed. Therefore, the next section of this chapter attempts to understand how the interviewed teachers have constructed these implicit theories.

5.3 Sources of teachers' ITG

Teachers' responses to the questions regarding the sources of their ITG sounded very similar and their rating of the sources they commonly mentioned seemed very similar.

For example, the majority of the teachers in the four schools pointed out that their teaching experience, social media, personal reading, and personal life experience are the sources that contributed significantly to the constructions of their ITG. On the other hand, most teachers unexpectedly commented that the INSET and pre-service preparation programmes they attended made little or no contribution to their ITG. Figure 5.25 represents teachers' responses where the most influential source (professional life experience) is placed in the biggest circle of Figure 5.25 and the least influential source is placed in the smallest circle. It is worth noting that this representation is based on the teachers' ratings during the interviews.

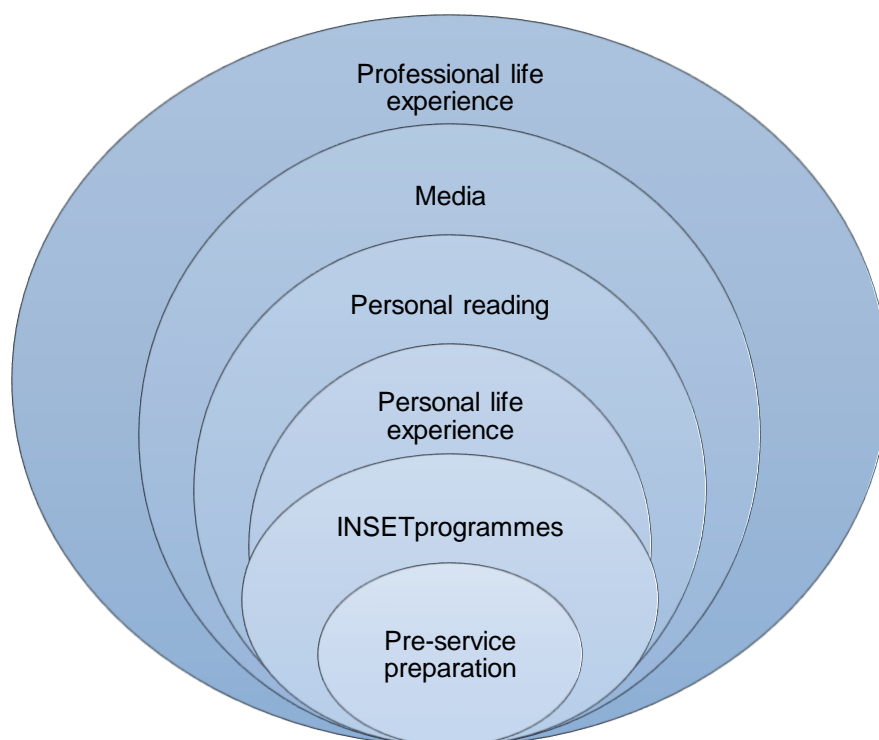


Figure 5.25. Sources of teachers' ITG

5.3.1 Professional life experience

The majority of the interviewed teachers considered their teaching experience as the main source of their ITG. According to the teachers, their teaching experience has allowed them to deal with students of different abilities including gifted learners, which has given them a chance to build up an internal picture about the characteristics and traits related to giftedness and gifted learners. For instance, the science and English teachers at the B School said that they mostly learned about giftedness from the field and from working with students of mixed abilities. Laila, a science teacher commented:

The field has enabled us to get closer to students, so we have seen various types of students, when we think about a certain student whom we think is gifted, we wonder if we consider her as gifted because she is really gifted or because she is performing so well in her school tests.

Likewise, the following excerpt by the maths and science teachers at the F School confirmed that the ITG they held are mainly the result of their teaching experience:

Ahlam: I feel experience comes in the first place, but are you talking to us as teachers or about giftedness itself?

Researcher: About you as a teacher

Ahlam: Then it is the teaching experience, in this case

Zainab: Yes, teaching experience first and then maybe the social media

Muthla: True, self-effort beside teaching experience

Maria, an English teacher at the F School emphasised the role of professional life experience and specifically daily interaction with students. Similarly, when asked about how professional life experience enriched their knowledge and ITG, Basma, a maths teacher from the same school responded, *“through our observations, our daily*

experiences with different students and the comparison we make between them”.

Shams, an IT teacher at the A School also emphasised the role of her teaching experience in building up and structuring her ITG over the role of the pre-service preparation and in-service training she had undergone. In talking about this, she said:

I graduated 13 years ago, and I can't remember we had any enrichment on giftedness in the educational programme, we took psychological and educational modules and the practicum. However, I can say that we have been mostly enriched through the working field and the teaching experience.

Similarly, the English teachers at the D School also emphasised the role of professional life experience as the key factor:

Fatma: Through the school situations and experiences we deal with

Muna: Yeah, years of teaching experience.

In response to my question regarding which factor of the three they think contributed more to their ITG: the social media, the professional life experience or the INSET programmes, the majority of the F School Science teachers voted for professional life experience:

Researcher: Umm, if I asked you to rate the professional life experience, the in-service professional development programmes and the social media, which of these would you place as the top factor that has enriched you about giftedness and discovering the gifted?

Maysa: I feel social media.

Ahlam: I feel professional life experience comes at the top.

Zainab: Yes, professional life experience.

Muthla: I agree our self-effort and professional experience.

Although not commonly mentioned, teachers' discussions were identified as a significant source of teachers' ITG. A maths teacher at the B School demonstrated how such discussions are usually initiated between teachers by saying "...for example, if I have a gifted student I can ask a colleague teacher if she can help me with some possible ways of how to deal with this student". In addition, sharing feedback on students among teachers was mentioned as a useful source of teachers' ITG. Fatma, an English teacher at the B School described this strategy as the following:

We deal with these students directly and continuously, I mean a student may stay with us from grade five to nine, for example, a student was taught by Aliya in grade five and I taught her in grade nine, so we have an inherited feedback about this student and we all know her, support her and encourage her.

5.3.2 Media

Most teachers also commented that social media channels such as Twitter, Snapchat and WhatsApp have played a great role recently in expanding their knowledge and information about giftedness. For example, the science teachers at the F School talked about how different social media programmes have paved the way for gifted people to demonstrate their gifts and how this has enabled teachers (as viewers/followers) to widen their knowledge about giftedness and types of gifts:

Researcher: To what extent has social media enriched you?

Muthla: Gifts are presented more through different social media. Before the social media we didn't know any photographers or cooks.

Maysa: Yeah, many gifts are shown on Snapchat.

Muthla: Yeah, anyone who has a gift starts to show it.

Researcher: And what about local TV programmes?

Ahlam: Haha, and who watches TV nowadays?!

In talking about media, teachers seemed to be more positive about the role of the

modern social media networks than the traditional modes of media such as TV, newspaper, radio etc. In the extract below, Ziyana, an English teacher at the F School explained why the social media network is more influential than the traditional media:

We receive lots of messages on WhatsApp on different topics, about children and how to deal with them, about giftedness and how to develop it, so I feel social media is playing a bigger role because, most of the time we are using our phones.

When the teachers were asked about the role of local media in constructing their ITG, they could name some TV programmes shown on Omani TV channels. However, many teachers criticised these programmes because, according to them, they only target students at tertiary institutions and they are not interested in school students. The Maths and Science teachers at the A School attributed the interest of media on students at higher education to the dominating belief that giftedness is manifested more at older ages than at school age. In addition, according to them, tertiary education receives more financial support in comparison to schools; that is why students at tertiary institutions have more opportunities to practise and show their gifts which, in turn, makes their gifts more recognisable to the local community and to the media specifically. Some teachers also criticised the media, including the social media networks, as they believed that it generally tends to concentrate more on specific gifts, while other types of gifts are totally ignored. According to them, poetry and singing are given more attention while science gifts are not. This can be understood through the A School science teachers' response to my question below:

Researcher: When I say media, I don't only mean Omani media, but media in general.

Do you feel that media has enriched your knowledge on giftedness and gifted learners?

Maryam: I feel that science fields are not covered.

Sheikha: I feel they concentrate more on artistic gifts like poetry.

Maryam: Yes, on poetry and singing.

5.3.3 Personal reading

In addition to professional life experiences, many interviewees also talked about the different modes of reading they have done throughout their life. In the following excerpt, Laila, a science teacher at the B School talked about how personal reading has widened her knowledge on giftedness:

It can be books, research papers we have read or even video stories of gifted people we have watched; all we have said about the characteristics of the gifted, the role of heredity or the influence of the family's educational and economical status, all of this is an accumulation of experiences and reading.

Likewise, the English and IT group at the A School and the English and maths teachers at the F School also talked about how the widely available reading materials on different social media networks contributed to the construction of their ITG. A teacher pointed to the articles that she gets on her WhatsApp by saying *"I always read on WhatsApp very good articles about this topic, very useful things are usually sent."* Aseela, an English teacher, referred to the reading research she did for an old presentation on her BA degree course. In an attempt to stress the significance of this experience, she talked about how she still keeps hard copy notes of that presentation and how she still remembers the information she used to support her views:

I remember when I was at the university, I had to do a persuasive presentation, I spent a long time thinking about a topic, then I ended up with a title 'We are born equal, but then it is up to you', yeah I remember I got an excellent mark on it and even my teacher wrote a comment which says 'a very memorable presentation'. In that presentation, I tried to convince the audience that we are born equal and no one has special abilities, but then it depends on the environment, I still keep a note of the points I discussed.

5.3.4 Personal life experiences

Beside teaching experience, most teachers across all schools emphasised the role of

life experiences as another source of their ITG. For example, an English teacher at the A School gave some examples of what she means by life experience:

Amal: Mainly from the life experience.

Researcher: What do you mean by life experience?

Amal: I mean what I have seen and passed through and from what I see now.

This view was also echoed by the science teachers at the B School, who considered their life experience as a valuable source which has formed their giftedness theories. Related to life experience, Amal, the teacher above, also talked about how one's perception of him/herself as gifted can contribute to the construction of the ITG. For example, she strongly believed that giftedness is a developmental construct because at some points of her life she showed symptoms of a drawing gift but because she did not work on developing this gift, it died.

5.3.5 INSET programmes

Most teachers across all these schools seemed to agree that of the very few INSET programmes they attended whether at the school or those delivered at the BNGED, none of these was on giftedness. Teachers' views regarding the role of INSET in constructing their ITG seemed to divide them into two teams. The first team was particularly critical and did not perceive any contribution made by INSET to their current ITG. This team insisted that the main source of the ITG they held is their professional life experience, specifically dealing with different types of students. This was evident in this comment by Eman, an English teacher at the A School, who did not see any contribution in this respect made by INSET:

I will say it frankly, no one has ever talked to us about gifted education, you are the first one to discuss these issues on how to discover gifted learners or what giftedness means to us. You are talking to me now and I am thinking here and there who are the gifted among those whom I have taught during the 9

years I have spent in the MOE; INSET mostly concentrates on teaching methods.

In the same way, the B and the F Schools science teachers were also critical of the INSET programmes. This was evident in the following excerpt from the interview with the B science teachers:

Researcher: Have you attended any professional development programmes on giftedness, either at your school or at the regional training center or other places?

Laila: None

Wala'a: Maybe there are some, but not enough

Researcher: But I have realised through our discussion that you have quite wide theories and beliefs!!!!!!

Laila: Do you mean programmes for students or for teachers?

Researcher: I mean background information on giftedness.

Laila: Like the definition of giftedness?

Researcher: Yes, the information you have, where did it come from? Don't you think such professional programmes have a role?

Laila: No.

The second team of teachers argued that while it is true that the INSET programmes they attended were mostly on common issues related to teaching, the knowledge provided is still helpful when dealing with gifted students as illustrated by the excerpt below from the maths teachers at the B School:

Aisha: The Professional development programmes whether internally at the schools or externally like the ones I recently attended at the BNGED in which they hosted a well-known trainer called Ahmed Saqer, gave me some ideas on how to deal with

gifted learners

Researcher: Was that on giftedness?

Anwar: No different topics, you know the topics of the programme can be general, but such programmes touch various areas such as the challenges that face teachers and like this,

Naeema: But they weren't on gifted learners, they were about how to deal with students in general.

Researcher: Including gifted students?

Anwar: Yes, whether the weak or outstanding learners, what challenges teachers encounter.

The F School maths teachers and the A School's science teachers shared a similar view regarding the INSET programmes they have attended. This was clearly expressed below by Sheikha, a science teacher:

I feel these INSET programmes we attend can open windows for a teacher, so s/he can be creative. For example, if we talk about teaching strategies, a teacher may have been applying a specific strategy improperly, so a professional training programme can help her by showing how to use this strategy properly. Thus, if the teacher does that, then s/he can modify or add to this strategy in her/his classroom. Talking about ourselves, we have been trained in many strategies, which we have tried out and modified to suit our syllabuses and our students' age and needs.

The above teacher maintained that though the INSET programmes she attended were not specifically on the area of giftedness and gifted learners, what she gained from them can still help her in modifying her teaching of different students including the gifted ones.

5.3.6 Pre-service preparation

The majority of the interviewees commented that their pre-service teacher preparation programme did not include a course or even a module on how to discover gifted learners and how to deal with them. Therefore, this suggests that their pre-service preparation programmes do not contribute to their constructed ITG. For instance, the maths teachers at the A School commented that even with the psychology modules they did as a part of their BA degree requirements, there were no sessions on this topic. This group of teachers seemed to have similar amounts of teaching experience; the oldest had 18 years of teaching experience and the youngest were two teachers with 10 years of experience. All of them graduated from local Omani institutions, either the SQU or the Colleges of Applied Sciences. Similarly, the science teachers at the A School also collectively said that their pre-service preparation did not have any modules on gifted education. The good thing about this group was the variety of teaching experience that ranged from 15 years to 2 years, as this allowed me to compare teachers' responses with regard to their teaching experience. A lucky coincidence was that two teachers, the one with 15 years of experience and the one with 2 years teaching experience, graduated from the same institution, SQU. Despite the difference in experience, both teachers commented that their BA programme did not include any modules or courses on gifted education. This was clearly stated by Awatif who got her teaching degree 2 years ago:

Researcher: Awatif, you got your teaching degree from the SQU two years ago, so did you take any special programmes or modules on giftedness?

Awatif: I was not in the education college; I was a student in the College of Science.

Researcher: Aha, okay then what about the year of the educational degree?

Awatif: There was nothing at all on gifted learners and to be honest we never heard the word 'Mawhooben' during the year of our educational degree.

When asked about the source of their ITG, the Maths teachers at the B School did not mention their pre-service preparation programme at all, which may imply that they consider that it made any contribution to their existing ITG. In line with this, the F School Maths and English teachers commented that their BA programme did not include any modules or courses on giftedness.

In summary, this section presented the findings related to the sources of ITG that teachers revealed in the previous two sections (Section 5.1 and Section 5.2) of this chapter: namely, teachers' metaphors of a gifted learner and teachers' ITG. It is worth mentioning that Figure 5.25 shown at the top of this section is a result of the rating suggested by the interviewed teachers. Surprisingly, as Figure 5.25 shows, the INSET programmes and the pre-service preparation were described as the least influential contributors. This is an indicator that the national institutions responsible for preparing teachers need to take an action towards revising and modifying teachers' preparation programmes by including modules on giftedness. Similarly, the MOE needs to revise teachers' INSET programmes to include training courses that enlighten teachers about the concept of giftedness, identification of gifted learners and how to meet their needs.

5.4 Summary of the chapter

This chapter presented the analysis of the data collected through the metaphor activity and the 11 focus group interviews with teachers. Initially, most of the metaphors generated by the teachers indicated that Omani teachers hold positive theories and beliefs about a gifted learner. Moreover, despite the fact that the teacher groups in the

four school cases gave quite different images to represent their metaphorical thinking of a gifted learner, many commonalities could be found among these images. This suggests that teachers hold some common implicit theories about gifted learners regardless of their subjects, teaching experience and their schools' location. The in-depth exploration of Omani teachers' ITG in Section 5.2, however, revealed that these ITG are not always positive; teachers also expressed many negative ITG. The analysis of the data also marked out a number of sources that have contributed to the construction of teachers' ITG; surprisingly INSET and the pre-service preparation were valued as the least influential resources.

Chapter Six: Data Analysis (Gifted Education Practices and Challenges)

Introduction

The main aim of this second chapter of analysis is to explore the current practices of gifted education and the challenges facing gifted education at cycle two Omani government schools (Grades 5-9). This is done through analysing the data gathered by the focus group interviews with teachers and administrators. Hence, this chapter has two main sections: Section 6.1 reports on the existing gifted education practices at the four schools and Section 6.2 reports on the participants' perceptions of the challenges facing gifted education at cycle two Omani government schools.

6.1 Gifted education practices

6.1.1 Practices related to the nomination and identification process

Among the existing practices explored in the present study was the nomination and identification process of gifted learners. This point was discussed during the focus group interviews with both groups of participants: teachers and schools' administrators. Overall, the data revealed a lack of a standardised and systematic identification and diagnosis process for identifying gifted students at the Omani government schools. Teachers and administrators pointed out that when nominating and selecting a student for a gifted programme, they usually rely on a set of tools that are used either collectively or individually: discovery by teachers, notification by parents, students' attempts to show their gifts, coincidence and the efforts of school social workers, as shown in Figure 6.1.

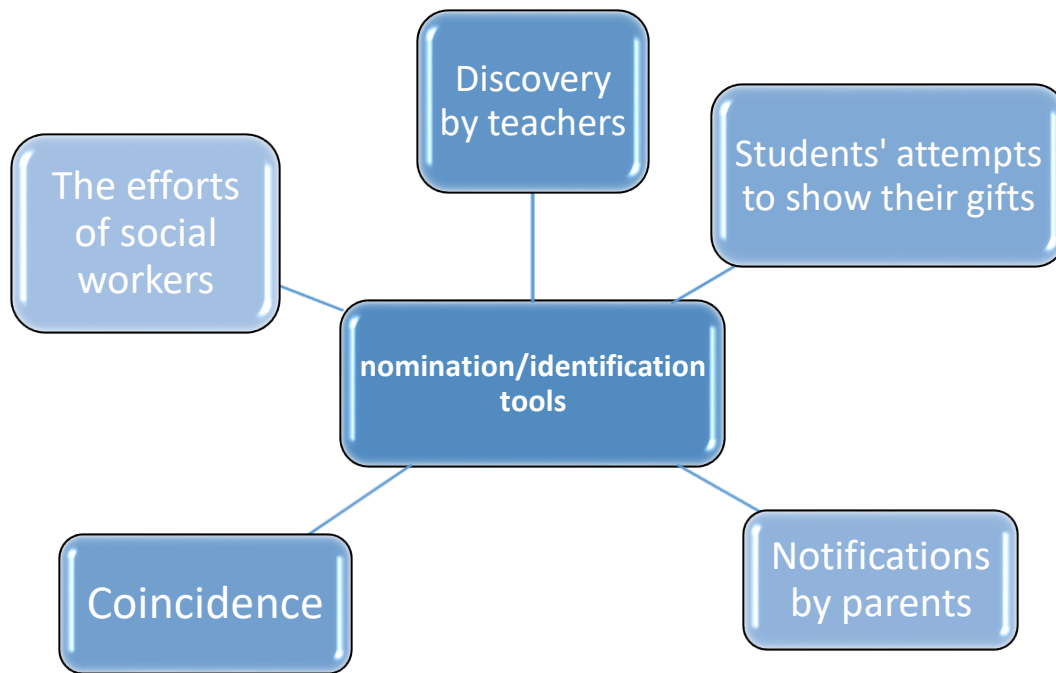


Figure 6.1. Current identification tools of gifted learners

6.1.1.1 Teachers' discovery

One of the prevalent identification tools mentioned by most administrators and teachers was teachers' observation and discovery. This teacher's role was described by Majeda, the social worker at the B School:

Another point is that teachers have started to help us in this regard; any teacher who observes certain signs in a student like leadership skills, a beautiful voice or presenting skills, comes and tells us.

Likewise, the administrators also emphasised the crucial role that teachers play in the identification process and they attributed this to the direct daily contact between teachers and students. The following excerpt from the F school's administrators demonstrate the powerful role teachers play as the first notifiers of gifted students:

Hessa: ...The continuous cooperation between us and students in the area of giftedness, for example in arts we often see her paintings.

Researcher: But before you meet, how do you get to know her?

Sara: Through her teachers as teachers are in direct contact with the students.

Hessa: Yeah, teachers are closer to students than us.

In relation to teachers' role in discovering gifted learners, many teachers pointed to students' academic achievement as one of the tools they use when they are asked to nominate or identify gifted students. Although most teachers expressed the belief that gifted learners are not necessarily the school's high achievers, they admitted that in practice, the first thing teachers look at when it comes to identifying gifted learners is learners' test scores. In the excerpt below, teachers gave the reasons behind this mismatch between belief and practice. First, teachers find it easier to identify gifted learners through referring to their academic scores. Second, teachers often tend to nominate students who are active members of school societies. For example, as explained by Shams, an IT teacher, members of the Student Management Society have more opportunities for nomination because only particular students with particular characteristics are eligible to register:

Amal: In most schools, giftedness is connected to academic excellence, so teachers tend to nominate academically excellent students to participate in gifted programmes.

Researcher: Why do you think so?

Amal: The reason is that it is easier and faster, so usually students with high academic scores are the ones who participate in morning assemblies and you find them everywhere.

Shams: Yeah, also in the Students Management Society and school forums.

6.1.1.2 Students' attempts to show their gifts

During the interviews with teachers, they indicated a significant role of students themselves that enables them as teachers to easily identify and spot gifted learners at their schools. This includes students' attempts to get attention from others, whether teachers, administrators or even their classmates to recognise their gift. In the next excerpt, science teachers at the B School marked out several techniques that students use:

Wal'a: See, a gifted learner tries to attract others to her through her behaviour; as if she wants to say to them please see me, I am here, and I exist.

Researcher: So, is this positive or negative behaviour?

Wala'a: They can be through a friendly talk between her and me or through certain behaviour, sometimes, she tries to attract my attention during the morning assembly, sometimes she behaves in a certain way with her classmates just to obtain their attention.

Researcher: Obviously, all the actions she takes to seek attention are positive?

Wala'a: Yes, sometimes she produces something through which you may discover her gifts.

Accordingly, some gifted students use various ways to show their gifts and attract others' attention, such as:

- Classroom behaviour, which seems to be positive rather than negative, for example in the case of drawing gift, a student tries to make use of colourful pens through which she attracts a teacher's attention.
- Always participating in the morning assembly, so that more people can recognise her.

- Insisting on showing teachers examples of her work to impress them.

Beside students' attempts to make themselves visible, some schools' administrators talked about how they considered students' tendencies and interests as a helpful measure while setting up lists of gifted learners at their schools. In this excerpt, Sara, one of the administrators at the F School described how this happens:

We are required at the beginning of each year to upload a list of gifted learners to the MOE's portal, so we tell each teacher to make a list of gifted learners in her classroom. For example, one time, I wanted to include those students who had gifts, but they didn't participate, and no one knew about them. To do this, we specified a lesson and we told teachers to let the girls themselves tell the teachers about their interests and let the girls suggest the preferred ways through which we could support them, so they gave us a table in which some of them wrote cake decoration and some of them mentioned speech-giving and composition and even some of them mentioned magic games....

6.1.1.3 Notifications by parents

Teachers also pointed to the insistence of some parents to make their children visible and recognisable through directing teachers' attention to their children's abilities. This is reflected in the following excerpt from the interview with the science teachers at the A School. The excerpt discusses the situation of a student whose teachers did not recognise her gift, but her mother thought she was gifted in science. The mother kept insisting the science teachers should pay attention to the daughter's gift:

Researcher: So how did you judge this student as gifted if she is a kind of person who doesn't show her real abilities?

Awatif: Her mother came.

Sheikha: Yes, her mum came and told us that her daughter attended many Science courses, so we were surprised though we know that this student is academically doing well.

Researcher: Okay, it is true that she attended courses, but she might not be gifted,

unless you noticed something as her mum claimed.

Sheikha: She didn't show us a thing though her mum kept asking us to get her to do something, her dad is an engineer and I think he provides her with electrical circuits that she works on at home, she can also make up Robots from pieces, but honestly we didn't recognise these abilities here at school, you feel there is a missing link, what's the problem? Is it her social ability? You can see her usually alone.

Awatif: Yes, she is not sociable at all.

Sheikha: Yes, she won't do anything unless you ask her personally to.

In this vein, Athra, the social worker at the B School appreciated the role of some parents in helping the school to recognise students' gifts:

I also consider parents as the main factor behind the recognition of a student's gift, you know a student sometimes feels there is a barrier between him and his teacher or he may feel shy or afraid, so parents come and notify us about the student's gift such as giving a speech.

6.1.1.4 Coincidence

Another way of gift identification as pointed out by teachers is coincidences. For instance, Sheikha, a science teacher at the A School noted:

Sometimes, a student may play music and by coincidence a teacher hears her, and she gets attracted to the student's musical performance, so this teacher may decide to support this student, but the problem is if no one realises such a gift and no one knows about it, it will die.

In line with the above, Shams, the IT teacher at the A School also gave another example of a student whom she discovered coincidentally as gifted in art:

Four years ago I had a student [her name is], this student was often silent, she didn't use to participate in the lesson, while I was teaching them a programme, I can't even remember its name now, I was surprised that she presented the concept of knowledge in a form of 'brain layers', I mean she divided the brain into very precise parts, the most surprising thing was that she produced that piece of design by using the mouse of a computer, I was

wondering if a person tried to draw a similar thing using a pencil, would he succeed in producing a piece of the same quality? I talked to her Art teacher after that and she assured me that this student was one of the best students in art though her performance in other academic subjects was not that good.

Another way of identifying giftedness and which can also be related to coincidence is school or classroom projects. This is suggested below by Eman, an English teacher at the A School:

I can tell you a story of a student in one of the mountainous schools I used to teach at. This student was academically struggling, he was behind three to four years, everyone at the school was talking about his low achievement and recommending that he needed special support. One day, students at this school were assigned an IT project, can you imagine that this low-level student was the first to successfully do this project? He invented an electrical card for opening doors, he made a card for the Learning Resources Room at the school, and everyone at the school was surprised how this student made it...

6.1.1.5 Efforts made by social workers

The interviews with the administrator groups stressed the crucial role that a school's social worker plays in relation to the identification of gifted learners. One of the tools the social worker uses is a 'case study'. Although this case study is not intentionally carried out for gifted learners, the nature of a case study approach, which involves an in-depth focus on a specific student, may lead to the discovery of the student's hidden potential. In the excerpt below, the social worker at the B School described the way by which such studies are carried out:

Athra: See, we, as social workers, have to conduct case studies on some categories of students, these categories include students who have specific issues whether health, psychological or financial. In doing this, I take certain considerations in mind, such as what the girl likes or what gifts she owns, you understand?

Researcher: Yes.

Athra: So, through this we can discover, for example, if this student like Reem is....

Reem is a student with a degree of autism, one side of her brain, I think the left side, doesn't work, it is dead. I studied this student's case and I managed to discover what she likes through this study.

Hessa, the social worker at the F School talked about this tool (a case study) and she explained how these case studies help her to discover and follow up giftedness within the students she studied:

... Sometimes I have interviews with certain students for other private purposes and I may discover through these interviews that this student has a drawing gift, for example, or Inshad gift, so I try to develop it through continuous communication with them and through contacting her teachers and informing them that this student has a talent in that area, so she can use it. Sometimes, the academic achievement of this student is below average, but she still shows signs of giftedness.

Beside case studies, the social workers also talked about exploratory classroom visits they conduct from time to time, mostly during substitution lessons. These visits which are considered as one of the duties of social workers are purposefully conducted either to discuss particular topics of a special interest to students or to listen to students' issues and help them to resolve them. According to Athra, the B School's social worker, such visits allow them to get closer to students and see their abilities, as in the below example:

..., I attended a lesson on the National Day celebration and as I was talking to students about how to foster a sense of citizenship and how to activate citizenship values, a student asked me to give her a permission to sing. She surprised us with her beautiful voice because I have never heard this student singing in the daily morning assembly, so we got her to perform singing the next week in the morning broadcast. Of course, as this was her first experience we expected her to be shy, but we knew that her shyness would gradually disappear and through this we meant to develop her gift.

To conclude, the analysis of the data has revealed that there was consensus among teachers and school administrators about the fact that in the cycle two government schools that are supervised by the MOE, there is a lack of a standardised identification system which schools can apply to identify gifted learners. Therefore, what is actually happening in this regard is that each school is randomly using convenient tools, which are mainly based on observing students' performances by someone like teachers, parents or school social workers. This may mean that with the current identification practices many gifted students remain undiscovered because, due to their personality and other factors, they tend not to show their gifts.

Another important dimension of gifted education practices the data analysis unveiled is the initiatives and practices that are performed by teachers; this is the focus of the next section.

6.1.2 Practices related to teachers

When talking about teachers' endeavours to meet the needs of gifted students, teacher interviewees mentioned numerous strategies they adopt. Although when discussing this point, teachers frequently tended to talk about the effort they exert to support academically highly able students, the next section sheds light on all the initiatives teachers talked about in relation to those they perceive as gifted, regardless of whom they were thinking the gifted learner was when they were talking. Thus, Figure 6.2 presents all the practices that teachers pointed out, whether practices they used to support academically gifted students or practices to support students gifted in other areas:

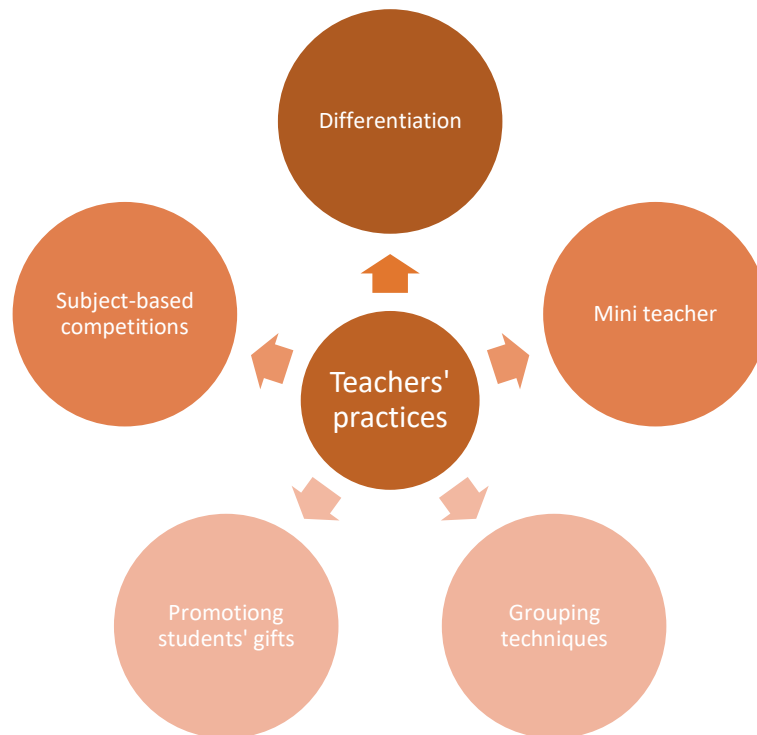


Figure 6.2 Practices related to teachers

6.1.2.1 Differentiation

The teacher interviewees in the different four schools talked about various forms of differentiation that are being implemented to meet the needs of gifted learners. For example, a maths teacher at the B School said that she prepares enrichment activities that can suit students of different abilities in her class including the gifted. In the same vein, the science teachers at the F School and the English teachers at the A School talked about differentiated questions, which simply means preparing special oral questions to be specifically directed to students whom the teachers perceive as gifted. Yet, when talking about these questions, some teachers said that they prefer oral rather than written questions because they noticed that other students get upset when these students are given written questions that are different from theirs. On the other hand, some teachers said that they give students a collection of differentiated written questions to be answered according to their abilities and interests. In the following

excerpt, Aisha, a maths teacher at the B School illustrated how and why she does this:

...We give them a lot of questions to answer in a form of a booklet, we call it Muzakera, this booklet includes a variety of questions. Gifted learners, of course, answer the easy questions but they often tend to look for the difficult ones as well. This is the nature of the gifted and the highly able student, if she answers the questions successfully she feels happy and a sense of achievements and she proudly comes to say to me: teacher I answered this difficult question...

In addition to tasks and questions differentiation, some teachers talked about differentiation of projects as illustrated by Sheikha, a science teacher at the A School in the below:

Let's say I have projects, usually there are easy projects and projects that require higher thinking, observation and analytical skills, so the group which includes a gifted student in Science will be assigned this project to benefit from her energy, whereas easy projects can be given to other groups. For the higher level projects, I expect the gifted student to come up with things I haven't thought of, she will do the experiments and she will come up with extra observations or even she may do the task in a way that is not described in the book...yes because her abilities fit these tasks and through such tasks these abilities can be developed as well.

Another example of project differentiation was also described below by Khadeja, an English teacher at the D School. Although the project she talked about was conducted by another teacher in another school, Khadeja talked about it to demonstrate how such an idea is being applied:

For example, last year a social studies teacher in X school selected a number of students whom she felt have geographical interests to do a project that was sponsored and supported by the BNGD and the MOE; it was a great idea. The students had to choose an environmental or geographical issue that no one had studied before and they had to come up with a creative solution for this issue. This means that they had to conduct a scientific study. My niece was one of the students who participated in this, so what did they do? She did her project on the wadies [a channel like a valley that is usually dry except when it rains, wadies are very common in desert areas like Oman]; she wanted to know what the reasons behind the high number of sinking accidents and deaths in wadies are. Thus, she did the statistics on the number of deaths, number of visitors to these wadies. Imagine, they came up with a number of existing problems in these wadies. The holes in these wadies, I am not sure what they are called, but these holes represent a big danger to life, but no one had noticed...

6.1.2.2 Mini teachers

One prominent way teachers mentioned as a way to support gifted learners is assigning them the role of 'mini teacher', where a student takes the role of the teacher in the classroom. The maths teacher at the B School, pointed to this technique and Aisha, one of the teachers explained how she applied it:

We tell a student that now you are the teacher, so she always surprises me with her techniques, she surprises me with her ways of teaching, sometimes she asks for my advice concerning the techniques she will use, so I give her a chance to do it the way she likes, I mean I let her teach in her own way.

Another form of 'mini teacher' technique is to assign some teacher's duties to gifted students. For example, the science, English and IT teachers at the A School talked about giving gifted students some classroom responsibilities that require leadership skills. From the teachers' perspective, such teaching techniques can be beneficial to both the teacher and gifted student. On the one hand, when the teacher delegates some of her work to these trustworthy students, this will reduce her workload. On the other hand, getting students to perform and practise some of the teachers' responsibilities can foster and enhance students' abilities. The two science teachers in the following excerpt noted this idea:

Sheikha: We don't have many Waaaw students, but if I have a student with leadership skills I can get her to manage the class or lead the groups, that means I can make use of her abilities, for example, I let her manage a certain group or to check homework.

Awatif: I usually get her to check the class homework

6.1.2.3 Grouping techniques

Some teachers also explained how placing the gifted in a group that includes slow learners can help these learners to work faster. In this regard, Amal, an English teacher at the A School said, " Yes, we get them to take the role of the leaders, leaders

in the groups of those students who usually take a long time to get the work done, so I place the gifted student next to them and if they finish their own work, I ask him/her to help.”

6.1.2.4 Promoting students' gifts

Some teachers also talked about how they encourage gifted students to make their gifts visible and make use of them. A science teacher, Kifah, at the B School talked about how she pushed a student whom she thought had a painting gift to make use of her gift:

A student whom I taught used not to talk or participate during the lessons, but if you look at her books they are the best, I kept telling her that she had a painting gift and she should make use of it for her future, she asked how such a gift could benefit her and what she would do with it? I told her: such a gift can help you to become an architect one day, your drawings are very precise so that may help you to be enrolled as an engineering student, so why not to work harder?

In relation to this, some teachers also talked about how they try to promote students' potential to be recognised beyond the school's boundaries. Aseela, an English teacher at the F School gave an example of a successful attempt in this regard:

For example, I felt that the girl I am talking about now used to have high capabilities and leadership skills. It happened that I was participating as an organiser in a community event; it was the family day for the ORPIC Company (a petroleum company). They wanted a presenter whom they would pay for to present and lead the event night party. Initially they thought to bring someone from a specialised company to do this job, but instead of bringing someone from a company, I thought of my student, so I called her mum to ask for her permission and I told her that she would be paid, the mum welcomed the idea. The student was in grade 11, so with the help of her sister, she succeeded in managing the whole party, so her giftedness was displayed even beyond the school boundaries.

6.1.2.5 Subject-based competitions

Teachers also mentioned subject-based competitions, which they run locally at schools to support the highly able students. For instance, the maths teachers at the B

and A Schools organised small competitions which targeted high- achieving students in maths internally at schools. These competitions are then followed by rewarding the winners either in class or during the morning assembly. Usually, students who get the highest scores in these competitions have a better chance of participating in national competitions, such as the Cognitive Knowledge Development programme (see Section 6.1.3.7) or international competitions such as Maths Olympiad, which are all supervised by the MOE.

6.1.3 Practices related to schools

Beside regular classroom teachers’ practices, interviews with the school administrators also marked out some practices that are run at cycle two government schools to serve gifted learners directly or indirectly, as Figure 6.3 shows.



Figure 6.3 Practices related to schools

6.1.3.1 Commercial projects

In two schools (the A and the F Schools), administrators pointed to a project entitled as ‘By My Project, I Build My Country’ (bimashrooi Abni watani). This is a commercial

project initiated by the BNGD. The project is based on a unit in the 'Life Skills' subject in grade nine, which aims at preparing students to be successful entrepreneurs. Zuwana, the senior supervisor of school activities at the A School, briefly described what this project is all about: *"this project is on handicrafts, productive things students can produce through which they can make money, for example, students with the designing gifts can design cards"*. To clarify it further, the administrators at the F School talked about a specific product that was made by grade nine students in their school as part of this project. According to the administrators, while the students were presenting their product to some visitors from the BNDG, the visitors were amazed because they felt that what students were exhibiting was beyond the ability level of grade nine students:

Sara: ... It was scented oil that you can use in toilets, I mean once you throw it in the bath it explodes

Researcher: Aha, you mean bombing bath bubbles?

Sara: Maybe, once seen by the BNDG's personnel, they were astonished, and they said it was beyond the students' level

Researcher: You mean students made this themselves?

Hessa: Yes, students themselves came up with this idea.

Sara: Yeah, they were amazed that such an idea came from the students, but you know nowadays students don't think like before.

As the administrators pointed above, today's students think differently from the way the older generation used to think. This was evident in the committee's astonishment at what they saw from the students, to the extent that, at the beginning, they did not believe that what they saw was thought of and created by grade nine students.

6.1.3.2 Internal workshops

The school administrators also pointed to a few examples of specialised workshops that are voluntarily delivered to students with special interests and abilities by schoolteachers. These workshops as described by the administrators aim at developing and supporting students who show an interest and high level of performance in a specific area. An example of such workshops is given by Athra, the social worker at the B School in the following excerpt:

Teacher X conducted a workshop and when I asked her what this workshop was for, she said I had students with high abilities in IT, so I was conducting this workshop for them to strengthen their abilities. Thus, if this workshop continues, you will see many students who are waaw in the IT because this generation is a computer generation whose abilities and skills need to be continuously supported.

The F School's administrators also indicated another example of such internal workshops. In the following excerpt, Sara, the senior supervisor of school activities at the F School, illustrated how students are nominated for these workshops and examples of some workshops conducted at the F School:

... To do this, we specified a lesson and we told teachers to let the girls themselves tell the teachers about their tendencies and to let them suggest their preferred ways through which we can support them, so teachers gave us a table in which some of them wrote cake decoration and some of them mentioned speech-giving and composition and even some of them mentioned magic games and others. Now, we are planning to conduct workshops through using school teachers, for example, the laboratory teacher has some gifts, so I told her to decide what she would like to offer to students, I know she is good at magic games, she studied this and she works in the laboratory and she can do this, students think this is magic but it isn't...

6.1.3.3 External courses/workshops

Talking with the administrators about the existing practices also revealed that there are some training courses, which are mostly on technology, that are organised by external bodies to support students' interests and skills. For instance, the

administrators at the B School pointed to a five-day course that was organised by the Ministry of Heritage and Culture for a group of school students who had to attend a course on computing skills outside the school. However, according to the administrators, convincing students to participate in this course was a challenge because parents and even students did not want to miss five days of their school. The administrators at the A School also pointed to another course on technology organised by the BNGED for students. Based on her description, this course was for three days and it was mainly on how to connect and fix computer appliances. As understood, there was no problem with the timing of this course as explained by the administrator below:

Zuwina: It was at the end of the semester when there were no classes and the course was for three days: Tuesday, Wednesday and Thursday. And I remember, once, the course organisers and conductors came to our school and had a meeting with the participating students, it was at the start of the new school year.

Researcher: You mean they met the students who attended the course, was it to follow up how they benefited from the course?

Zuwina: I have no idea, but this meeting was mainly theoretical, whereas the three days they had attended before were practical.

Thus, as it can be understood from the two course examples above that there are opportunities for long courses that target students at schools, but they are very rare. In addition, attending these courses is a challenge for schools as they have difficulty in persuading students and their parents to attend, especially if these courses are conducted on school-days.

6.1.3.4 Internal and external Competitions

It seems that the most common practice related to gifted education at schools is the competitions that are either initiated by schools or organised by the BNGED or the MOE. Most competitions are usually run locally at the schools and then the winners are selected to participate in regional competitions, then national and international ones. In the following excerpt, the senior supervisor of the school activities at the A School explained that running the competitions internally first and then getting students to participate externally give gifted students a chance to practise and develop their gifts:

Zuwina: ... For example, last year I organised a poetry operetta to participate in a school activities competition.

Researcher: How were students selected for this?

Zuwina: through the Arabic teachers, who also chose the poems, then we got students to perform the show in the morning assembly, so I trained them, and they practised at the school first, then I got them to participate externally in the governorate school activities shows.

When asking the administrators about how they approach students and get them to participate in these competitions, Sara, the senior supervisor of school activities at the F School, pointed out different ways including the morning assembly, hard copy announcements, online websites and through teachers:

We announce it in the morning assembly and for example if the application for the competitions is online, the interested students can apply online by themselves, but we have to announce it in the morning broadcast and if interested students want to have more information about the terms and conditions of the competition, we have copies to give them, but they have to contact the organisers by themselves. Also, if the competition is related to scientific innovation which is related to the Science Club, we contact the teacher supervisor of this club and she selects the excellent and gifted students in the club. The teacher supervisor is responsible for following up and supervising the students during the period of the competition.

6.1.3.5 Summer programmes

The schools' administrators also pointed to the role of the summer programmes that are organised by the MOE for school students across all governorates in Oman. These summer programmes operate during the summer holiday and involve a number of specialised workshops and activities that are run by specialised trainers. As an example, the administrators at the B School talked about one of the summer programmes entitled 'My summer, My Education' (Sayfi Talemi), which is financially sponsored by Sohar Port and Free Zone Corporate and is coordinated and managed by BNGED. The following excerpt demonstrated how this programme with its multiple and varied components serves gifted students' needs:

Researcher: If we talk about the summer centres that are funded by companies such as Sohar Port and Free Zone Corporate, it is mainly for high achieving students, isn't it?

Majeda: Yes, and specifically English language high achievers.

Athra: But I think it is nice that they also have specific domains workshops.

Researcher: Yeah artistic and technological workshops.

Majeda: Yeah, it is interesting because it includes everything students need, but because the places are very limited, very few students can get a chance.

From the administrators' perspective, the 'My Summer, My Education' programme, which the administrators mentioned above does not play a great role in supporting gifted students for several reasons:

1. Not all schools that are supervised by BNGED are given places; the schools that are located within the borders of specific cities including Shinas, Liwa, Sohar and Saham have a better chance. This is because these cities are closer

to the industrial area and this summer programme mainly serves the students in these four cities because it is deemed as a social service from Sohar Port and Free Zone Corporate.

2. Also, for logistic and transportation reasons, some schools in the four cities are not targeted. For example, rural and mountainous schools (like the D school in this study) are not given places.
3. Moreover, the seats that are assigned to the targeted schools are very limited, so very few students of a specific grade get a chance to join this summer programme. In the 2019 version of the programme, only grade 11 students were targeted.
4. Furthermore, the criteria that are set as conditions for joining this summer programme, such as a high general academic score and high English language score, deprive many gifted students of participation.

Thus, for the reasons listed above, the schools' administrators think that the summer programmes that are sponsored and supervised by the MOE and managed by the RGEDs can offer wider opportunities to a wider group of students of governments schools. This is because the MOE summer programmes target bigger numbers of students in each governorate. In addition, any interested student can join, as academic achievement is not a criterion for joining these programmes.

6.1.3.6 Morning assembly

Daily morning assembly broadcasting is another form of practice frequently mentioned by both teachers and administrators. Besides viewing it as a tool for discovering students' hidden potential, morning broadcasting is also considered as a platform where a student can display his/her gift to an audience. This is reflected in this extract

from the interview with the F School's administrators:

Researcher: Let's talk about the existing practices and initiatives that the F School is performing in the area of gifted education for gifted learners.

Hessa: In the assembly broadcast where students participate is always there, even today there was a new student (directing the question to her colleague), did you hear her voice?

Sara: Yes, may Allah bless her.

Hessa: In the broadcast, her name is Fatma.

Researcher: Is she a newly-transferred student to your school?

Hessa: No no, she's been in this school for a long time, but it was the first time she has participated in the morning broadcast.

Researcher: Do, what is her gift then?

Hessa: Inshad, I was amazed at her performance because she is a very quiet student, but she surprised me, her voice was marvellous... it was the first experience for her; it was like that student in grade 7.

Researcher: So, do you think morning broadcasting helps?

Hessa: Yes, through morning broadcasting students' gifts can be manifested and recognised.

6.1.3.7 Cognitive Knowledge Development Programmes (Innovation and Scientific Olympiad)

The Cognitive Knowledge Development Programme has been supervised and conducted by the MOE since the academic year 2007/2008; it was launched by a royal decree by His Majesty Sultan Qaboos, the country's ex-president. The Cognitive Knowledge Development Programme focuses on science, mathematics and

geography. A great part of this programme aims at discovering highly achieving students, encouraging them and developing their skills and making them able to think, search, apply and innovate. Add to that, it aims at preparing students to find solutions for the environmental problems they encounter in their daily life, as well as preparing them to participate in national and international competitions and achieve high levels in these competitions. To achieve these aims, the programme relies on a number of tools including:

- Editorial competitions
- Oral competitions
- Practical projects

In interviewing teachers and administrators, the majority of the participants pointed to this programme as a way of discovering and supporting gifted learners at schools. In the next excerpt, administrators at the A School used the son of one of the interviewees, whom they believe is gifted, as an example to prove how they think this programme succeeded in supporting him:

Maryam: It enhances and develops a learner's skills, we can take Zuwina's son as an example, it has taught him daring and curiosity beside attending forums, so his self-confidence increased and his fluency and communication skills with others have developed as well.

Researcher: So, do you think this development is a result of his participation in this programme?

Zuwina: Yeah, but he has also liked to innovate and discover and makes things since he was a little child

6.1.3.8 Other forms of practices

In addition to the above forms of practices, participants also talked briefly about other activities and practices that take place at their schools, which they believe have a role in discovering and supporting gifted students. These activities involve:

- School field trips
- Scouts camping
- Schools posters and displays
- Weekly activities lesson
- Exchange visits with other schools

The participants in the four schools collectively commented that implementing gifted education at a school is not an easy task and they related this to numerous challenges they are facing in this regard. The next section will attempt to shed light on the challenges as reported by the participants.

6.2 Challenges facing gifted education

This section aims to answer the fifth research question, namely: '*What are the challenges that are currently facing gifted education in cycle two Omani government schools?*' Answering the question was attempted through analysing the focus group interviews with both groups of participants: teachers and school administrators. At the beginning of the interviews, teachers and school administrators found it an opportunity to talk about general issues they face in their school contexts, such as the large number of teaching periods, heavy curriculums and extracurricular school activities they have to do as part of their job. Therefore, I had to narrow down the interview questions to direct the discussions specifically towards issues related to gifted education. Overall, data from the focus group interviews revealed a number of

challenges that are clustered around three main categories: challenges associated with students, challenges associated with teachers and challenges associated with schools, as shown in Figure 6.4:

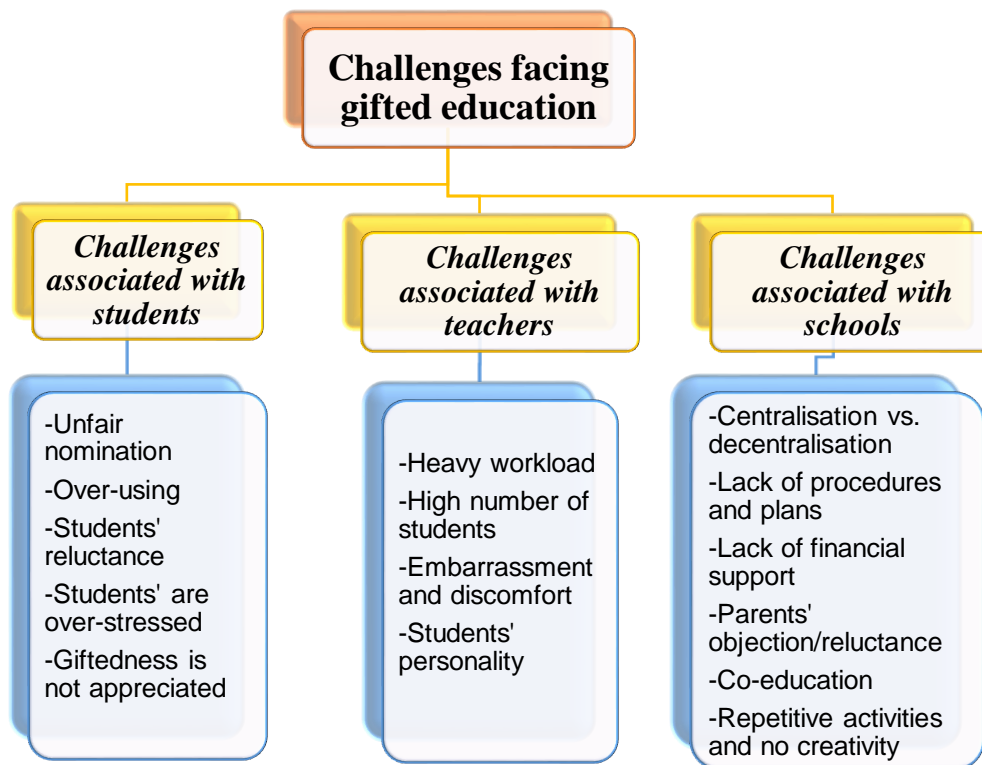


Figure 6.4 Challenges facing gifted education at cycle two government schools

6.2.1 Challenges associated with students

Challenges related to students were mostly pointed out during the interviews with the teachers; this was to be expected as teachers are the closest to students and in direct daily contact with them.

6.2.1.1 Unfair nomination

During the interviews, teachers talked about how the concept of giftedness is mistakenly used because it is usually associated with high academic achievers at schools. According to the teachers, this perception of who a gifted learner is, leads to

unfairness as it always deprives other gifted learners who do not get high scores in school tests from participating in gifted education opportunities. When asked about the reasons why teachers follow such an approach in nominating students, the English and IT teachers at the A School stated that most teachers always prefer to use the easiest and fastest way when nominating students by just looking at the records of students' test scores. The maths teachers at the B School also pointed to this issue; one of the teachers as she was talking about summer programmes noted:

Even the summer programmes are unfair to many students; this is because these programmes exclusively target a small category of students and these are usually students who achieve highly in the final tests, so it is already decided.

6.2.1.2 Students' reluctance to manifest giftedness

The findings indicated that many gifted students show reluctance to display their gifts at schools. As stated below, the science teachers at the A School attributed this reluctance to parents' and students' fears of a negative impact of manifesting the gift on students' academic progress:

Researcher: Others said that students tend not to show their gifts because they are worried about their academic progress, what do you think?

Sheikha: Yes, and their families as well.

In addition, many teachers attributed students' reluctance to students' personality. The science teachers at the B School expressed this in the following excerpt:

Wala'a: Sometimes, gifted learners are oppressed.

Researcher: How?

Wala'a: They are not given a chance.

Researcher: A chance?

Wala'a: Time and stress do not allow them to manifest their gift.

Sumaya: And sometimes s/he is shy, and s/he doesn't show the gift, we notice that, it can be beyond his/her desire.

Correspondingly, the English teachers at the D School shared the same viewpoint regarding a student's personality in the following excerpt. They believed that even if a student has a predisposition for a specific gift, his/her personality can sometimes lead to the death of this gift:

Khadeejah: I would like to highlight a point here; sometimes a student's personality may harm the student.

Researcher: How?

Khadeejah: A student with a weak personality or who suffers from shyness doesn't have the courage, what I mean is that I might have been granted a gift from God, but my personality is weak and shy, so you feel this gift dies out and disappears.

From the two extracts above, participants stated that sometimes a student may have particular potential, but his/her personality does not support this potential to be manifested as a gift, so this can be a challenge to giftedness in itself. Let us assume a student is gifted, but s/he has a shy or an introverted personality; if a teacher wants to encourage him/her to develop, display and share this gift with others, the teacher needs to work first on pulling him/her out of that isolated zone. Otherwise, the student will keep living in his/her closed zone and consequently the gift becomes passive and it dies out.

6.2.1.3 Students are over-stressed

As a challenge to giftedness manifestation, teachers also pointed to the high levels of stress students experience especially in government schools. Due to the high

demands of studying in government schools, students feel stressed and do not even have time to think about their interests and giftedness. Examples of the stress students undergo at their schools were given in the excerpt below by Amani, an English teacher at the F School:

... I feel the study atmosphere here (government schools) is very exhausting, especially for young learners. Even when they go back home they have homework and reviews, so where they can get time for their giftedness? No time. As Maria said, the school is supposed to be a motivating place for students to study, I mean in the morning, for example, a student should be very happy that s/he will go to school, my son, for example, used to study in a private school and he used to feel happy to go to school. However, yesterday I was asking him about his hands, which had turned red, he said this was because of the school, I asked him what's wrong? He said I don't want to go to school. So, see how stressed they are, and how they feel the difference and there is no way to practise what they like.

When discussing the issue of students' stress, the teachers could not avoid making a comparison between government and private schools. The teachers believed that there are more opportunities and ease for gifts to be manifested and nurtured at private schools than in government schools. Most of them based their comparison on the experience of their own children who had experience of both contexts, such as Maria (an English teacher) who noted this comparison below:

Maria: Now, students finish a lesson and they immediately start another, eight periods without a space between them, but in the X school (a private school) where my children study, they sent us a letter nearly a month ago which said that on Wednesdays after school there would be an extra hour to practise activities.

Researcher: You mean after school clubs?

Maria: Yes, and they asked parents what they want in each area: in music, in crafts and sports.

6.2.1.4 Giftedness is not appreciated

Another challenge associated with students is their feeling that though students work

hard to make their gifts recognisable, their gifts are not appreciated or supported in society. This was indicated by Kifah, one of the science teachers at the B School, as she was talking about a situation she encountered:

I was teaching in a summer programme when a student asked me to give her a chance to speak. The student had participated in an international competition and her team got one of the top places in the world, but n- one in Oman reacted to this event, she was saying that although we had won, we didn't receive any attention, and no one paid any attention to us, even there was no media coverage for this achievement...

A similar story about the lack of mental and financial support for such achieving students was also shared by Muna, an English teacher at the D School. Although the story was related to a student at tertiary level, the teacher was trying to express the same position regarding the lack of support school students receive:

Support is really important; my sister is a pharmacist student and she conducted research on the frankincense tree through which she succeeded in discovering a medicine and she was rewarded 600 OMR and after the research her team and she presented the results many times in different events. She has been unemployed and staying at home for more than two years, so where has her effort and hard work gone?

6.2.2 Challenges associated with teachers

6.2.2.1 Heavy workload

All the subject groups across all the schools complained about the heavy workload at their schools, an issue that prevents them from providing the necessary support to gifted learners. For instance, the science teachers at the A School identified some examples of this workload, such as heavy syllabuses, large number of periods a day, marking and following up students' attendance:

Maryam: We lack time.

Sheikha: The pressure.

Awatif: We are responsible for a syllabus, which we must finish, so how I can specify time for supporting gifted learners?

Sheikha: Large number of periods, a teacher with 21 periods a week that means 4 to 5 lessons a day, she only has 3 free lessons, during which she has to record students' attendance or organise the classroom or follow up students' books and other things, all of this requires time, and don't you think we need time to read about this area? If we don't have any experience how can I help the gifted?

Due to the heavy workload, some teachers expressed a sense of guilt towards gifted learners. For instance, a science teacher at the B School talked about how guilty she felt towards gifted learners because she thought that due to the heavy burden, students' gifts are neglected:

Wala'a: Sometimes, I feel that a gifted learner is oppressed.

Researcher: How?

Wala'a: S/he is not given a chance.

Researcher: What do you mean?

Wala'a: If I am given enough time or the pressure on me is reduced, I can help the gifted learner to manifest his giftedness.

Hence, some teachers believed that with the current situation at government schools, having gifted learners for the entire period of their schooling deprives them of their simplest rights. A teacher, therefore, suggested that once a student's gift is recognised and diagnosed, s/he should be transferred into a special place where this gift finds a suitable atmosphere to be nurtured and supported:

Muthla: Teachers are stressed, and this is unfair to gifted learners.

Ahlam: They need to be moved to a qualified place where materials are available, in this way their gifts can be polished.

6.2.2.2 Large number of students

Many teachers also complained about the large number of students in classrooms at government schools. Although this is a general issue facing most schools in Oman due to the increase in population, teachers also viewed it as a challenge that prevented them from providing the required support to gifted learners. This issue was brought up by Fatma, an English teacher at the B School as follows:

...if you have a class of 30 students, the 40-minute lesson you spend with them does not allow you to see everything, so that's why sometimes you are shocked. For example, one day I was surprised to see one of my students be rewarded in the morning assembly, I was really surprised because you can't imagine this student's performance in class. Despite the advice you give her and whatever you try to support her, she is always silent. Yet, in arts she is different, her artwork is amazing.

In this vein, a maths teacher at the B School described how her experience of teaching a class with a small number of students enabled her to get closer to her students, which, in turn, enabled her to discover their abilities:

... If I enter a classroom with 35 students, how do you expect me to take care of a weak student? One year, I taught a class of 22 students, I honestly felt a sense of comfort, I felt I was close to each student, I was aware what a student was writing, I was able to talk to all students and each student had a chance to present and answer.

6.2.2.3 Embarrassment and discomfort

Teachers also pointed out that sometimes having gifted students in their classroom can cause them embarrassment and discomfort. This is because gifted learners might outperform their teachers with regard to the content area of the subject. This issue was stated very clearly by the English and IT group at the D School when they were asked if having a gifted learner in their classroom creates any challenges for them:

Aya: Yes, it creates a challenge.

Researcher: How?

Aya: It requires me to continuously develop myself; it requires me to exert extra effort

so that I can reach the student's level.

Fawzia: I agree with Aya, I should be ready for any question

Khadeja: Yes, ready for any embarrassment.

In this regard, Wala'a, a science teacher at the B school, gave an example of such embarrassing situations she has experienced:

Indeed, gifted learners can outperform their teachers, the simplest example is we as Science teachers sometimes have to draw sketches. I am not good at drawing at all, hahahah, so usually my drawing looks funny, so the student with a drawing gift is the one who starts to laugh first and pose silly comments.

As can be understood from the excerpt below, the maths teachers at the B School attributed this embarrassment to two reasons. The first reason is that teachers are extremely overloaded during the school day, so they do not have the time to think about the needs of gifted students. Therefore, teachers' overload and lack of preparation force them to use the same materials for all students, a strategy that does not satisfy the needs of gifted students. The second reason, as admitted by the teachers, was that the qualification and knowledge of classroom teachers might not be sufficient to support those students whose giftedness might outperform their teachers' knowledge. Hence, teachers may feel that their confidence is constantly threatened because they might not be able to deal with unexpected intelligent questions thrown at them by the gifted learners:

...a teacher may not have enough time, for example, all what we can do, as Aisha said, is to use the revision booklets which mainly include simple questions. Also, a teacher's ability to deal with high abilities may not be that strong; this is because there is no professional development for teachers in this area like how to write questions that suit high ability students.

6.2.2.4 Students' personality

Teachers also expressed concerns regarding the personality of some students

whom they think are gifted: an issue that causes a sense of discomfort to teachers in the classroom. Naeema, a maths teacher at the B School, noted this challenge below:

... See we have very outstanding and gifted students in maths, who always try to dominate the classroom. In this case, it depends on the teacher's personality of how to deal with this, I might be that kind of person who tends to control it and inhibits students' gift because it irritates me or I might be that kind of person who tries to make a balance so I may inhibit some parts of the gift and allow others, because this is the student's personality and we have to consider it when dealing with them.

Some teachers also talked about disturbing behaviour exhibited in class by some learners whom they think are gifted. According to them, these learners usually tend to move a lot and make annoying sounds in a way that makes the classroom messy and irritates teachers. In the excerpt below, the English teachers at the D School tried to explain such irritating behaviour:

Aya: Sometimes, their movements may lead to a mess and classroom problems

Khadeja: By the way, as Muna said, you feel that a gifted learner moves a lot, have you wondered why? Through these movements s/he wants to give an indication that I am bored, this is not my domain of interest, this is not my gift, and this is not the domain I can be creative in, so s/he does anything to break the boredom.

In an alignment with the above explanation, the maths teachers at the A School also talked about the issue concerning gifted learners' low boredom threshold. However, the teachers believed that this discomfort gradually disappears once teachers understand the nature of these learners, as illustrated here:

Samia: In the classroom, gifted learners get bored quickly, sometimes you are about to start explaining a new piece of information, but they rapidly grasp it and once they comprehend it, they put their hands on their cheek [a signal of boredom] and they don't

participate any more. This is because they have already processed the new information, so they said to themselves we don't want any more from the teacher.

Researcher: So, do you get annoyed by these looks and implicit feelings passed to you by these learners?

Samia: We get annoyed if we don't understand these looks, but once I understand my learner well and I realise that s/he comprehends what I say, I feel comfortable because as a teacher the thing I am concerned about is the learner's comprehension. Also, this learner highly outperforms his/her peers and I have to deal with him/her differently, for example, when we have exercises, I have to give him/her a separate exercise paper.

In relation to learners' personality, the teachers also said that sometimes they are obliged to avoid certain supporting techniques with gifted learners because of the sensitivity of other students in class. The following excerpt from the interview with the English teachers at the A School clarifies this:

Eman: We give them extra tasks, sometimes.

Amal: Yeah, we also tend to direct the smart questions to them.

Researcher: You mean orally?

Amal: Yes, orally because other students get upset when we give these students something different to do.

Eman: Me too, I used to give them printed materials, but as Amal said other students got annoyed and said to me why did you give them that.

Amal: Yeah, sometimes some students start crying.

6.2.3 Challenges associated with schools

This section concentrates on the challenges facing schools with regard to gifted education. Most of these challenges have been mainly discussed during the interviews with the school administrators. Data from the interviews revealed so many challenges, but I have tried to merge and combine specific challenges under general themes. In general, these challenges can be classified into five main issues as presented in Figure 6.5:

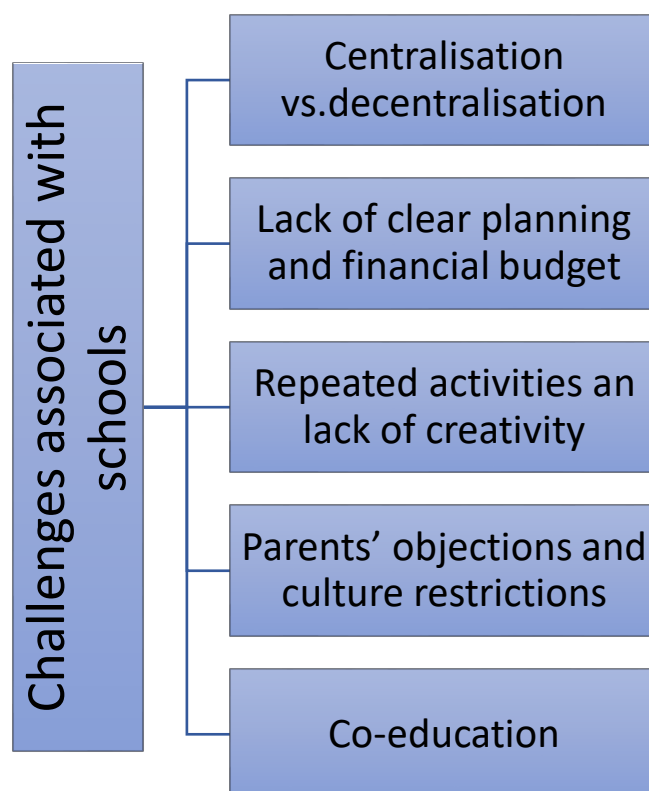


Figure 6.5 Challenges associated with schools

6.2.3.1 Centralisation vs. Decentralisation

In the early 1970s, the MOE adopted a centralised education system to ensure that national standards were applied properly. Recently, however, some aspects of the educational system have been decentralised to the RGEDs in the eleven governorates. In addition, the MOE started to move towards more school autonomy by granting schools' principals more leading roles. For instance, school principals are now expected to supervise teachers, organise school efforts to improve teaching, and develop an action plan based on the whole-school evaluation report. Therefore, with this increased autonomy, principals and schools are supposed to have increased accountability. However, interviews with the school administrators revealed that schools are still suffering from the centralised system to an extent that restricts them from taking even simple decisions related to their schools. According to the administrators, this hinders schools' plans in general and their efforts with regard to gifted education. For instance, administrators said that the BNGED does not allow them to run certain activities at the schools before getting the green light from BNGED's personnel and usually such activities are rejected for unconvincing reasons. The F School's administrators talked about some examples of their proposed initiatives for supporting gifted students; namely field trips, hosting well-known experts and running fund-raising activities locally at schools. However, these initiatives were either immediately rejected or passed through very complicated channels between the offices of the BNGED for unjustified reasons:

Sara: The problem is that sometimes we want to invite someone to our school to present something to us, but we are not allowed.

Researcher: Strange! Is it to that extent?

Sara: Yeah, it is banned.

Hessa: Yeah, we got a BNGED circular that says so.

Researcher: Even if your principal knows about this an, she has no objection?

Hessa: Yeah, we have to get the BNGED's consent first.

Sara: When we talk to the principal about such matters, she requests us to contact the BNGED for agreement first and she says I don't want to get a blaming call from the BNGED.

Another example of the centralised role of the BNGED on schools, as pointed out by the school administrators, is the restrictions imposed on fund-raising events, which schools used to run locally to support school activities. These restrictions were mentioned by the administrators of the F School, as shown here:

Researcher: Well, what about fund-raising activities?

Hessa: Banned as well.

Researcher: They were allowed before, weren't they?

Hessa: Yeah, they used to be run, but now they are not allowed, specifically selling food.

Sara: So, you can't sell students anything. In the past, school charity markets and donation events played a role at least in raising fund to support school activities.

6.2.3.2 Lack of clear planning and financial budget

As said previously, most of the gifted education practices at government schools seem to be individual efforts initiated by people in schools. According to the school administrators, they usually receive general circulars from the BNGED regarding some forms of gifted education activities, such as nominating students for a certain programme or asking them to run a competition for gifted students locally at the school.

The administrators, however, admitted that they often carry out this request randomly just for the sake of doing it because their schools have to do what is required. As an example, in the excerpt below, Majeda, the senior supervisor of activities at the B School, talked about how they struggle every year with the gifted students lists, which the BNGED usually asks the schools to make at the beginning of each school year:

The first thing we are supposed to do is make a list of gifted students, but this is a problem in itself. How can we make these lists? Usually students say they are gifted, for example, in Inshad, but at the end you discover they are not, so there is a need to train us first on how to discover gifted learners. And they have to specify something clear we can do during the school day.

Beside this, administrators complained about the confusion and unclear directions in the circulars or letters they receive from the BNGED concerning gifted education events. This confusion is due to two reasons: (1) the lack of a clear definition of who should be nominated for a certain event and (2) no clear direction about who to contact either in the BNGED or the MOE in case of further questions and inquiries. The B School's administrators discussed this challenge as follows:

Majeda: See, there is a confusion because for them, who the gifted is? It's the one who participates in competitions.

Athra: Yeah, and this is what you are doing now.

Majeda: Yeah, but shall we work and run competitions, or shall we work on supporting and developing the gifted student? These are totally two different areas. In Saudi Arabia, they have what is a gifted teacher, they have a clear plan and clear procedures and they have a plan for each semester.

Researcher: They have clubs as well.

Majeda: Yeah, they have clubs, we had suggested to the department to have an art exhibition because we have so many pieces of creative artwork, but they gave us excuses because they don't have clear procedures that they can follow.

From the above, we can feel how annoyed Majeda is at the gifted education practices that are currently taking place. She complained that most activities they receive from the BNGED take the form of competitions and she seemed unconvinced of the value of such competitions because she believed that this is not the right way to support gifted learners. In addition, she compared how gifted learners are served in her Omani context and those in Saudi Arabia. This gives an indication that Majeda has informed herself about the experiences of neighbouring countries in the area of gifted education. Related to the issue of random practices, is the lack of well-planned activities or clear instructions on how to participate in the activities that are organised or initiated by the BNGED. Sara, a senior supervisor of the activities at the F School, expressed this issue below when she was talking about a photography competition her school was invited to participate in:

The first thing is the finance issue, and secondly, is the lack of clarity. For example, once we got an invitation for a photography competition, which said that only unique photos should participate, that's fine, but since they wanted students to participate in that competition, have they trained students on that? Have they talked to students about the features of unique photos they need to take? Students haven't studied anything about the features of photos; they may have learned very few things on Photoshop in IT. Okay, why not give participating students at least an induction lesson on this competition?

Beside the lack of well-structured plans and procedures, participants complained about the lack of a special budget for supporting gifted education at schools. When asking the F School's administrators if they received any money to run gifted education activities, the senior supervisor of the activities responded as follows:

As activities specialists we get zero budget, I mean we don't have a specific budget, unlike the arts society or sports society, we have zero budget, if want to run any activity we should take from others.

6.2.3.3 Repetitive activities and lack of creativity

Administrators criticised the activities and practices that are run for gifted learners, either those activities initiated by their schools or the ones administered by the BNGED or the MOE. According to them, most of these activities are repeated annually and do not go side-by-side with the rapid global evolution; a challenge that seems to demotivate students from participation as stated by the administrators of the F School:

Sara: This is what they want, and this is their thinking, sometimes you come to students and you tell them that you have a competition, for example, in poetry, students will say teacher we don't know, and this is not of our interest:

Hessa: We always ask them to change.

Researcher: Yeah, there are new ideas that fit in with the interest of this generation.

Sara: Yeah, they have to renew and renovate to attract students.

Researcher: Why don't you slightly change these competitions in a way that makes them relate to students' interests?

Hessa: The school can't change a competition like this, since the competition is launched by the BNGED in a certain way and with certain conditions that means they can't change even the title of the competition.

In a similar vein, the administrator at the A school also talked about the teachers' lack of creativity. As reflected in the excerpt below, due to the difficult circumstances of the teachers, they tend to rely on the same practices and are reluctant to come up with new ideas:

For example, last year I tried to support students through getting them to deliver workshops during the parents' open day, so when I told teachers that this year we don't want to repeat the same idea and they need to try to invent something new, teachers said we don't have a new thing, and this is what we have, take it or leave it. I know this is because of their circumstances and work pressure. So, there is no renovation and I feel that the current practices lack innovation and students get bored; they say to me that they would like to try out another school society.

6.2.3.4 Parents' objection/reluctance

For most schools, parents seem to act as barriers rather than supporters when their child is invited or nominated to participate in an event pertaining to gifted education. Teachers and administrators attributed parents' reluctance to two reasons. The first reason is parents' belief that such events are merely a waste of time because, in the end, this participation does not add anything to their child's achievement scores. This is pointed out in the below excerpt by Zuwaina, the senior supervisor of the activities at the A School:

..., many students refuse to take part because as they say my mum doesn't want me to leave my classes or she doesn't want me to participate, or I don't have time to participate. Sometimes you say to a student you have a poetry gift and I want you to practise this poem, but the student gives excuses and says to me: I can't do it teacher because I don't have time to rehearse and my mum doesn't want me to participate.

At another point of the interview, Zuwina also complained about parents' attitudes and unsupportive reaction whenever she asks for their collaboration because parents do not think that these areas of giftedness are important:

... we wish that parents collaborate with us, at least through providing a supportive environment at home that enables the student to develop his gift, I mean since a student can't do this at school due to school circumstances, s/he can do that at home. In March I am organising a family day on which the parents of each gifted student will be invited, and each student can display his/her gift to parents, for example, parents can see that their child is gifted in music, but s/he doesn't own an instrument.

Similarly, as reflected in the next excerpt, the administrators at the F School raised the same issue; they think this is because parents prioritise the child's academic achievement over the mastery of giftedness:

Some families don't show any interest in their gifted child. While some families care a lot, others show the opposite. Although they are aware that their child owns a gift, they don't support him because they don't perceive this gift as important as the excellence in the academic subjects.

The second reason behind parents' disregard for their child's giftedness, as understood by the schools' teachers and administrators, is that some parents hold traditional attitudes, values and beliefs that are either related to their culture or religion. Some parents are cautious about any school participation that threatens the family's beliefs and values. This issue was repeatedly indicated by the administrators at the D School at several points in the interview, especially when talking about musical giftedness:

Naifa: Students' performance in music is zero although some students show some creativity in music and arts. Let's say a girl wants to participate, but for her parents, this participation means she will need to go outside the school alone with a bus driver, so they don't want her to participate.

Hana: Yeah, some parents are very cautious about certain school matters.

Parents' caution about their children's engagement in the musical activities was also emphasised in the response of the A School's senior supervisor of the activities to my question regarding whether parents encourage their children to take part in the school musical activities or not:

Never, of course, especially that, as I told you before, it is not expected that parents will encourage their child to participate in the Scouts or Music Society. The music teacher has continuously complained that as soon as a student grows up, her parents do not allow her to take part in any musical practices because these are Haram [religiously banned].

6.2.3.5 Co-education

As pointed out previously, the A and the F schools adopt a partial co-education system. Only the lower grades (1-4) are mixed gender, whereas at the higher grades (5-9) students are all female and the teaching and the administrative staff too.

However, for geographical and demographical reasons co-education is fully implemented at the D School. Thus, the teaching and administrative staff are both male and female and students are mixed gender in all school grades (1-12). Therefore, unlike A and F Schools where partial co-education does not seem to negatively influence gifted education practices, full co-education seems to act as a big challenge to manifestation of giftedness in the D School. The teachers and administrators at the D School repeatedly pointed out this challenge at several points of the interviews. For instance, in the following excerpt, administrators talked about how co-education is preventing students from showing their gifts:

Naifa: Sometimes you might need help from a female student who has a gift, for example, in designing, but she refuses to help because she feels shy to ask for her male teacher's permission.

Researcher: So, your problem here in this school is co-education?

Fajer: yes, it is a big problem here.

Co-education does not seem to only influence students, but teachers and administrators too. This was evident in what Naifa, the D School's social worker, said in the following excerpt:

I understand, and I know the reasons that prevent them from displaying their gifts, it is all related to co-education issue. I, as a social worker, don't know how to deal with it either, I have difficulty in dealing with the arts or the Arabic male teachers who have gifted students, you feel there is something that demoralises our communication, you feel there is a difficulty between us and male teachers or male students. I mean, sometimes, I know that a student is gifted but s/he can't show his/her gift because the environment s/he is currently in doesn't permit it.

6.3 Summary of the chapter

This chapter of the analysis reported on various forms of gifted education practices

that are currently taking place at cycle two Omani government schools as expressed by teachers and administrators in the four school cases. The practices identified are categorised into three groups: those related to the identification of gifted learners, those related to teachers and those related to schools. It is important to mention that the data analysis revealed that there is a difference among the four school cases in the level of the practices carried out at each school. That is to say, some schools seemed to exert more effort in the area of gifted education, while other schools indicated very modest effort. Beside practices, the chapter also pointed out numerous challenges these schools encounter regarding the implementation of gifted education. These challenges are also classified into challenges that are related to students, teachers and schools. These findings are discussed further in the next chapter with reference to the aim of this study, the Omani context and the existing literature.

Chapter Seven: Discussion

Introduction

This chapter draws together the main findings from the study as reported in the two previous chapters and seeks to align these with the research questions that have shaped and informed the work with particular reference to the Omani context and the currently existing literature. The present study aims to explore the ITG held by Omani teachers and the practices and challenges facing gifted education at cycle two government schools. In the light of these aims, the chapter discusses four main issues: Omani teachers' metaphorical thinking of gifted learners, their ITG and the sources of these implicit theories, the status of current gifted education and the challenges facing it. Thus, the first section examines the findings relating to the first research question. It sheds light on the metaphors that teachers generated to represent their theories of a gifted learner. It also discusses what these metaphorical representations indicate pertaining to the construct of giftedness. The second section attempts to answer the second research question by discussing the main themes reported in Chapter Five which reflect Omani teachers' ITG. This part of the discussion chapter also explores

to what extent the reported findings are influenced by participants' cultural context and to what extent these theories resemble teachers' ITG in other cultures and contexts. The third section of the chapter presents the current practices of gifted education in the four school cases and comments on these. The final part of the chapter discusses the contextual factors and challenges that inhibit efficient implementation of gifted education.

7.1 Omani teachers' metaphors of a gifted learner

It is noteworthy that this collection of metaphors was gathered from subject groups (maths, science, English and IT) at the four school cases and it would be inappropriate to generalise the results to all Omani teachers at cycle two government schools. Nonetheless, within this small sampling of teachers, one can realise that a diversity of theories exists. This diversity parallels some of the diversity of notions developed by the prominent models discussed in Chapter Three. As previously pointed out, the analysis of the metaphorical data revealed two main findings. First, although the teacher groups in the four school cases gave quite different metaphorical images, the written descriptions in the metaphor activity and the way teachers explained their metaphors during the interviews, revealed many basic similarities in teachers' implicit theories and beliefs about a gifted learner. Second, teachers' metaphors indicated overwhelmingly that Omani teachers hold a positive picture of a gifted learner. Metaphors like a rainy cloud, a flower, an oil well, a curious child, a sparkling star etc., are culturally connotations of positive views. For example, when an Omani teacher who geographically belongs to a dry area represents a gifted learner as rainy clouds and raindrops, this representation indicates a pleasing connotation of life, fertilisation and becoming green after drought. This finding is consistent with that of Olthouse (2014), who concluded her metaphor analysis of 124 preservice teachers and

clinicians by stating that the majority of the offered metaphors reflected positive pictures of a gifted learner. Olthouse (2014) did not give any possible explanation to this finding, but my study attempts to do so. This finding relating to positive views of gifted learners appeared to match Alamer's (2010) findings; he found out that the investigated Saudi teachers seemed uncomfortable with associating negative characteristics, such as talkativeness, persistence and rejecting rules to giftedness. On the other hand, these findings do not accord with several studies conducted in other contexts. For instance, Geake's and Gross's (2008) study which covered 377 teachers in England, Scotland, and Australia who were under-taking Continuous Professional Development (CPD) in gifted education, revealed that these teachers have implicit negative attitudes about gifted learners due to the implicit negative theories that they hold. Geake and Gross (2008) attributed such negative implicit theories and attitudes to the complete lack or paucity of CPD programmes that familiarise teachers with the characteristics of gifted learners. The findings of my study also contradicted the results reported by Carman (2011) who found out that both graduate and undergraduate education classes at Midwestern University held stereotypical thoughts about gifted learners. These findings seemed to confirm the notion which my study advocates concerning the contextual and cultural roots of giftedness.

In response to the first research question, analysis of the 21 generated metaphors resulted in a long list of coded characteristics (see Appendix 4.12). However, by merging and combining these codes, seven main conceptual categories of a gifted learner's characteristics were identified as demonstrated in Figure 7.1. Accordingly, a gifted learner is viewed as being creative, socially intelligent, guiding/leading,

intellectually and cognitively different, popular and inspirational to others, continuously developing, rare and unlike others. It should be noted that because these conceptual categories are somehow interconnected, a degree of overlap was unavoidable. Furthermore, some metaphors appeared under more than one characteristic because they expressed multiple concepts related to giftedness.



Figure 7.1 Main characteristics drawn from teachers' metaphors

7.1.1 Creative

The attribute of creativity is frequently mentioned by most participants, either implicitly through the chosen metaphorical images or explicitly in the written explanations and during the interviews. As the data was collected in Arabic, it might be true that teachers did not utter the actual words 'creative' or 'creativity', but teachers' choice of particular metaphors such as a maestro (Figure 5.10) an artist (Figure 5.22), an octopus with an uncovered brain (Figure 5.11) and portraying a gifted learner as someone who always

stands recognisably apart from the rest of students (Figure 5.4) all indicate gifted learners as being creative producers. Also, though the teachers did not specifically discuss the concept of creativity as an immediate characteristic of a gifted learner, in their written and oral reasoning of their metaphors, a large majority of teachers used utterances, words and phrases that could be associated with creativity. Most of these phrases centred mainly on artistic metaphors, including a musical maestro and an artist. For example, the IT teacher at the B School who gave the metaphor of a maestro justified her choice of this image by saying that for a musician to be granted the title of maestro, s/he must first prove that s/he has the ability to compose creative musical works. Similarly, the maths teachers who portrayed a gifted learner as an artist justified their choice of this metaphor by saying that an artist and a gifted learner share a number of characteristics, such as possessing highly-developed imagination skills, producing distinguished and different work, being unique from others and very selective. Moreover, teachers' constant use of the closest Arabic equivalents 'mubdea' and 'Ibda'a' signaled that creativity is considered an important characteristic of gifted students for most participants, especially those teachers who used art images such as maestro and artist.

The findings concerning creativity are further supported by the models of giftedness discussed in the literature review chapter in Section 3.3. Though the role of creativity varied across the discussed models, it has been constantly emphasised. For example, in the Munich model, creative abilities are listed as one of the predictors (see Figure 3.4), whereas Renzulli's Three-Rings model (Figure 3.1) emphasised that for a person to be judged as gifted or not, s/he needs to display original thoughts, solutions, materials and create a specific product in a specific domain. The emphasis that teachers placed on 'creativity' through their offered images may imply that when it

comes to defining or identifying a gifted learner, Omani teachers may judge students based on how creative they think his/her performance is.

7.1.2 Socially intelligent

A number of teachers' metaphors in the present study reflected that gifted learners are socially well-adjusted, good communicators and can easily adapt to the environment they are placed in. For instance, an explorer (Figure 5.16) is viewed as a good communicator because on his/her way to a destination, s/he needs to communicate with people whom s/he meets to ask for directions that lead the destination, in the same way as a gifted learner needs to network intelligently and use different communication channels to reach his/her goals. A curious child (Figure 5.3 & Figure 5.9) usually keeps posing questions to find out answers to their wonderings and a bee (Figure 5.12) has to work collaboratively with its peers to produce pure and tasty honey. Moreover, like the internet (Figure 5.5) which has opened up new channels for human communication and is continuously developing, a gifted learner likes to communicate and network locally and globally for the sake of widening his/her knowledge. In addition, when talking about their metaphors, teacher participants used many positive social adjectives to describe and justify their choices such as inquisitive, adaptable, collaborative, communicative and socially intelligent, which suggest how socially intelligent a gifted learner is considered to be by the teachers. This social depiction of a gifted learner supports the findings by Hernández-Torrano et al. (2013), who found out that social features, such as emotions management, ability to relate to others and optimism, seem to be highly valued by Spanish teachers when considering a student as gifted. Hernández-Torrano et al. (2013) added that secondary Spanish teachers are very likely tend to nominate students with positive behaviours rather than students exhibiting disruptive behaviours.

The present study's results, however, are in contrast with the results of two studies by Baudson and Preckle (2013) and Baudson and Preckle (2016), which found out that gifted learners were rated as less prosocial and more maladjusted compared to average students. The positive social view of a gifted learner by my Omani teacher participants suggests that when it comes to the nomination of gifted learners, those students who show good social behaviour along with other characteristics are very likely to be considered first for gifted programmes, whereas students who are less sociable might not have the same chance, regardless of any other special abilities they show.

7.1.3 Guiding and leading

One significant finding that was reflected by some of the teachers' metaphors is that leadership is highly acknowledged as a characteristic of a gifted learner. For example, the use of images a maestro (Figure 5.10) and a sparkling star (Figure 5.15) indicates that for these teachers, a gifted learner is someone who likes to lead and guide others. The precise definition of the word 'maestro' in the Longman Dictionary is 'someone who can do something very well, especially a musician'. However, as explained by participants, a maestro is not only the one who displays outstanding performance, but also the one who leads the musical band and guides its members to collaboratively produce a magnificent performance. Coming from the same context of the participants, I can understand how cultural and environmental factors drove teachers' choice of these images to represent their thoughts of leadership. It is worth clarifying that the word 'maestro' is not commonly used among Omani people, but is a modern non-Arabic word used by only well-educated people like the participants of the present study. Thus, teachers used it here to convey their thoughts concerning the leading role

they associate with a gifted learner. In most Omani traditional musical and dancing bands there should be a leader (a maestro) who is usually the most skillful and proficient performer among the members of the band and, therefore, s/he takes responsibility for leading and guiding the other members. Therefore, associating a gifted learner with a maestro image conveys the message that leadership and guiding characteristics are crucial attributes of a gifted learner. Another example of the link between teachers' metaphors and their culture and environment in relation to leadership is the use of a sparkling star. In the past, stars used to be used by Omani sailors as a navigational method that guides them to reach their destinations. Thus, the depiction of a gifted learner as a sparkling star indicates that leadership is considered as an important characteristic of giftedness.

Looking at the models of giftedness discussed in Chapter Three, Gagné (2010) appeared the only theorist who explicitly represented leadership abilities in his representation of giftedness. As shown in Figure 3.3, Gagné (2010) perceived leadership as one of the social natural innate abilities of a gifted individual. As for the present study, it did not investigate the relationship between giftedness and leadership per se. Thus, the gathered data did not reveal whether teachers believed leadership traits in a gifted person are developed or innate. Moreover, the gathered data also did not reveal whether teacher participants view leadership as a gift in itself or as a characteristic of giftedness. Thus, further research might be carried out to examine the relationship between giftedness and leadership and whether teachers view leadership as a type of gift in itself or as a characteristic of giftedness.

7.1.4 *intellectually/cognitively different*

Highly developed intellectual abilities as an important constituent of giftedness were represented in most generated metaphorical images. Although most of the given metaphors hinted at intellectual characteristics, the most expressive images were a computer (Figure 5.2), the internet (Figure 5.5), Nils (Figure 5.6), Brainy Smurf (Figure 5.7), a curious child (Figure 5.3 and Figure 5.9) and the octopus with an uncovered brain (Figure 5.11). With regard to the metaphors of a computer and the internet, for example, as shown in Table 5.1, most of the characteristics listed by teachers can be categorised under intellectual/cognitive characteristics, such as rapid grasp of knowledge, possessing multiple skills, integrating information across all subjects, an ability to relate and compare information, complex performance, being smart organisers of information, and retaining and recovering information. The immediate visualisation of a gifted learner in this way by most teacher participants may indicate that for most Omani teachers, a gifted learner is the one who always performs well in academic subjects because this requires a person to have high level intellectual abilities. This finding is not surprising, as it is indicative of how a gifted learner is defined and introduced to teachers through the MOE. Al-Lawatia (2010) stated that the memos, circulars and documents circulated to schools by the MOE use the Arabic word 'Mujeed'. This word refers to a student who performs highly in the classroom and often gets high scores in the tests of academic subjects. Hence, for these teachers, the immediate thought of who a gifted learner is the 'mujeed student' who intellectually demonstrates high academic performance. These findings accord with many previous studies on teachers' beliefs of gifted learners which also found out that teachers strongly relate giftedness to a high level of intellectual abilities and excellent classroom performance. For instance, Busse et al. (1986) found out that American and German teachers are very likely to list the characteristics which assist learners to achieve high

success in schools such as rapid intellectual grasp, high IQ, curiosity and wide reading interests. The present study's findings also correspond with Moon's and Brighton's (2008) study, which found that the vast majority of American teachers tend to have a traditional concept of giftedness since they describe a gifted learner as one who possesses strong reasoning skills, a general storehouse of knowledge, high linguistic skills including an extensive vocabulary, good early reading skills and the ability to work independently. Jaffri (2010) reported that more than half of his Malaysian participants believe that gifted learners must have an IQ test score of 140. Intellectual characteristics were also highly valued by the Saudi teachers in AlFahaid's (2002) and Alamer's (2010) studies. Like Omani teachers, Saudi teachers also seem to view a gifted learner as one who demonstrates superior general intellectual potential, such as asking perceptive questions, possessing outstanding abilities as well as memorisation and critical thinking.

With regard to giftedness models discussed in Chapter Three, intellectual abilities/characteristics were emphasised by most models, but they were viewed differently. For example, Gagné's DMGT (Figure 3.2) and the MMG models (Figure 3.5) stressed the importance of intellectual abilities in giftedness; they both considered them as having the potential to produce extraordinary performance in certain conditions. However, both models maintained that intellectual abilities are only considered one type of potential an individual may have. This is because an individual might have a high level of other types of abilities, for example the creative, social, artistic, musical and psycho-motor abilities as named in the MMG, or creative, social, perceptual, muscular or motor- control abilities as named by the DMGT's model. In this respect, Piirto (1995, 2000) attempted to offer a balanced position to the high IQ

and giftedness debate by presenting her hypothesised giftedness construct model. As Figure 3.8 shows, a high IQ is considered important in realising some types of giftedness; namely, science, mathematics, verbal and academic talents. However, for other kinds of talents, such as performing, mechanical and spiritual, a high IQ score does not harm but is not necessary. Renzulli's Three Rings model, also emphasised the importance of intellectual abilities, but it assumed that a level above average is enough for giftedness manifestation. All these explicit theories by expert theorists suggest that while intellectual ability is an important factor to be considered when defining giftedness, it should not be considered as the only measure to judge giftedness. In other words, even if an individual does not demonstrate high cognitive and intellectual abilities in school subjects, s/he might still be gifted in other non-academic subjects because s/he has other types of potential.

The initial exploration of current identification and nomination practices (see Section 6.1.1) in the present study revealed that teachers act as powerful players in the nomination of students. As revealed by the findings, the majority of teacher participants tend to rely on students' test scores when they are asked to nominate, which may indicate that other students who do not score highly and who may have high potential in other areas are deprived from participating in these gifted programmes.

7.1.5 Popular and inspirational

An interesting finding that many metaphors reflected is viewing a gifted learner as a popular person, liked by his/her peers/classmates and seen as a source of inspiration to them. This characteristic was represented through different images, such as a cloud with heavy raindrops (Figure 5.1), a sparkling star (Figure 5.15), raindrops (Figure

5.20) and a flower (Figure 5.21). For example, the teachers at the D School particularly selected a flower image because it represented their implicit theory of a gifted learner as being a positive influencer. As they explained, a flower is well-known for its pleasant and lovely fragrance, so wherever it is placed, it spreads out its fragrance, so everyone can smell it. A gifted learner is like a flower; if there is a gifted learner in a classroom, the whole class gets affected by his/her energetic and enthusiastic spirit. The use of raindrops and rainy clouds also signaled the popular influential role of a gifted learner. As explained, raindrops and rainy clouds give life to the land and turn it green, so does a gifted learner. S/he gives life to the classroom through enriching it with his/her wide knowledge and ideas, energising the classroom's atmosphere and motivating other students.

English teachers at the D School used the metaphor of a sparkling star to indicate that a gifted learner is a popular person who acts as a role-model for others. According to them, everyone in the classroom wishes to be like the gifted learner because of his/her sparkling and distinctive performance. Viewing a gifted learner as a popular role model, a positive influencer, confirms the overall positive view held by most teacher participants as previously discussed at the beginning of this section. Moreover, the use of metaphors such as raindrops and rainy clouds reflect how Omani teachers' thinking of a gifted learner is culturally influenced. That is to say, as these teachers geographically belong to a dry area of the world, their perception of the rain differs from the perception of someone belongs to a wet context like the UK, where rainy weather is not desirable. For Omani teachers, rain is seen as a popular thing as it creates life, brings in joy and happiness and refreshes the air. Therefore, it is used as a metaphor to represent the way they think of a gifted learner. This popular view of

a gifted learner by Omani teachers is corroborated by a case study of a Korean gifted adolescent called Chris by Lee (2002) who emphasised the importance of sharing a common interest among peers in forming friendships, as well as developing new interests and gifts. Added to that, Lee's study found that peers played a pivotal role as motivators, supporters, competitors and a role model to their gifted classmate.

On the other hand, the findings of Western studies on the nature of interaction between gifted learners and their peers revealed that it is more related to age and the transition from childhood to adolescence. While gifted students are often popular in elementary classes, as they move to higher classes they become less liked by their classmates (Adler, Kless & Adler, 1992; Bishop, Bishop, Bishop, Gelbwasser, Green, Peterson & Zuckerman, 2004; Cross, 2015). Adler et al. (1992) found that academic achievement was a positive factor in peer relationships among young elementary students, but, by the fifth grade, high achievement had become a potential stigma, especially among boys. About 26% of gifted high school students in Cross's, Coleman's and Stewart's (1995) study believed that their peers saw them as different and unattractive because they are more serious about learning than other students with a preference for working independently. Cross et al. (1995) noted that giftedness is perceived by others as a negative attribute, so many gifted students consciously conceal information about their exceptional abilities to avoid being treated differently. Differences in the findings between Asian and Western studies on the nature of relationships and the popularity of gifted learners confirm the notion that gifted learners in different cultural contexts are viewed differently and these cultural views determine peoples' attitudes and interaction with the gifted.

7.1.6 *Continuously developing*

This characteristic is expressed through depicting a gifted learner as being a consistent systematic knowledge-seeker who works hard to expand his/her existing knowledge. This is metaphorically represented through using the images of a curious child (Figure 5.3 & Figure 5.9), Brainy Smurf (Figure 5.7) and an explorer (Figure 5.16) and a little child climbing an endless staircase (Figure 5.17). When justifying their choice of these images, teachers used many descriptive phrases that portray a gifted learner as being a consistent researcher and knowledge-seeker. For instance, among the characteristics that are associated with a curious child metaphor are being a curious discoverer, a good observer, a precise analyst, a knowledge-integrator, a passionate explorer, a curious inquirer, and a goal-oriented person. Nearly the same traits are used to justify the choice of Brainy Smurf and an explorer metaphor. An important point to highlight here regarding the developmental nature is that the majority of the teachers' metaphors seem to portray giftedness as an interaction of being and becoming. In other words, while many teacher participants believed that giftedness is inborn within an individual (being), their metaphors also reflect a developmental notion of giftedness (becoming). This is evident through a number of metaphors, but the most expressive one is that of a little child climbing an endless staircase (Figure 5.17), generated by the maths teachers at the F School. Empirically, this finding of my study appears to differ from the findings revealed by Olthouse's (2014) study, in which she found out that participants' metaphors could be classified under one of the two tensions that were proposed by Dai (2009); giftedness as being or becoming. The being group are those participants whose metaphors reflected *being*; they offered images that described gifted students as a "breed apart," and they believed that these students are made unique by their gifted characteristics. On the

other hand, the becoming group are those whose metaphors reflected giftedness as becoming emphasised either of these two factors: effort and environment.

My study's findings concerning the interactive relationship between being and becoming of giftedness development is strongly supported by the models discussed in Chapter Three, namely the DMGT model, the MMG model, the Pyramidal model and even Renzulli's model. Gagné proposed that an individual is born with different natural abilities, such as social, intellectual, creative, perceptual and physical abilities (gifts), but it is only when these abilities are exposed to environmental, intrapersonal and personal factors that they develop and are transformed into skills in a specific occupational field (talent). In this respect, I should mention that my data in general and the analysis of teachers' metaphors in particular did not reveal how Omani teachers define the terms 'gift' and 'talent'. However, it was found that teachers in the present study held a similar view concerning the development or transformation of inborn/natural potential into skills in a specific area. This finding seems also to be supported by the updated version of the Pyramid model through which Piirto (1995) explicitly stressed the role of environmental factors (suns) as essential factors in giftedness development besides genes, personal attributes and cognitive abilities.

Another interesting finding from analysing the metaphors is how teachers valued learning and education as powerful factors in giftedness development. This is strongly highlighted particularly in the image of a curious child who seems to enjoy reading a book (Figure 5.3) and a little child climbing stairs (Figure 5.17), where teachers stressed schools as a crucial factor in giftedness development. In this regard, Renzulli (2005) stressed the necessity of providing a wide variety of educational opportunities

beyond those ordinarily provided through regular instructional programmes to enable the interaction between the three rings to take place, which ultimately allows giftedness to manifest. Similarly, Gagné (2000) emphasised learning factors in the DMGT, where he considered learning as the intertwining factor between intrapersonal and environmental catalysts in the process of talent development. The finding concerning the role of education is also stressed by the latest version of the Munich model by Ziegler and Perth (1997), where the importance of learning is emphasised across all stages of an individual's life (see Appendix 3.2). The emphasis reflected through teachers' metaphors in the present study may suggest that these teachers are aware of the school's role and their own role as one of the school's basic element in the development of learners' potential and gifts.

7.1.7 Rare and unlike others

The majority of the 21 metaphors indicated viewing a gifted learner as a rare human being. The rarity attribute is identified as one of the five criteria in the Pentagonal model by Sternberg and Zhang (1995) in which they assumed that in order to be labelled as gifted, a person must manifest a high level of an attribute that is rare relative to their peers. Analysing the metaphors in terms of rarity revealed that this characteristic falls into two main categories. Firstly, a number of metaphors belong to what Olthouse (2014) referred to as the 'rare breed' category. For instance, metaphors like a distinguished artist (Figure 5.22), a maestro (Figure 5.10) and Brainy Smurf (Figure 5.7) imply that gifted learners are very rare in terms of the high intellectual and cognitive abilities they are born with, such as vivid imagination, strong intellectual and concentration abilities, an ability to look at things in a unique way, standing apart from their counterparts and acting as a leader to others. The second category of rarity metaphors include viewing a gifted learner as 'a commodity'. Commodities do not have

intrinsic value; rather, their value is dependent on society's needs and desires (Olthouse, 2014). Examples of this include portraying a gifted learner as 'an excellent hunter', 'a magic wand' and 'an oil well'. These commodities are rare and special, but if they are well-invested, they can contribute to the welfare of their society. To exemplify, the teachers' depiction of a gifted learner as an oil well signaled how rare and valuable a gifted learner is in their view; especially when we know that these teachers belong to a country where oil is considered as the most precious economic commodity. One positive aspect of this metaphor is that it gives a rationale for investing in gifted education. If a society invests in an oil well, that value is likely to appreciate with time. However, the use of an oil well metaphor may also allude to the fact that the investment is only justified if there is a payback that society values. Therefore, with such commodity metaphors, it would be difficult to justify gifted education for an outstanding learner simply because s/he is bright, especially if this learner displays exceptional performance in a domain that is not viewed as socially prestigious or valuable.

Comparing a gifted learner to an oil well also may indicate that the teachers who offered this metaphor are aware that gifted learners are not always visible nor easily recognised. There are some learners who possess outstanding potential, but for some reason they do not show it or maybe are not aware of it. This suggests that gifted learners need to be sought out and discovered and then they need to be supported to take advantage of their potential. In relation to this, Sternberg and Zhang (1995) maintained that a person needs to demonstrate that s/he possesses the abilities and achievements that qualify him/her to be labelled as gifted through one or more valid tests. An important implication of this in the Omani school context is that although the

validity of giftedness measurements continues to cause controversy among researchers and practitioners, there is a persisting need to start implementing the identification procedures that have already been tested and standardised in Oman.

To sum up, this section of the chapter has shed light on the significant findings obtained from analysing teachers' metaphors of a gifted learner in the four school cases. The findings reflected that the given metaphors are overwhelmingly positive, and this has a number of implications. First of all, this may imply that the teacher participants in the present study are very likely to welcome the opportunity to accommodate and support gifted learners. However, this collection of metaphors which may sound overly positive has potential negative implications as well. For instance, in a metaphor like 'a sparkling star', the word 'sparkling', which connotes beauty and brightness and may be rare, implies that teachers' expectations are so high as to be possibly unrealistic because not all gifted learners are superstars. In contrast, many of the metaphors generated such as a curious child, a magic wand and an oil well which convey a belief that a gifted learner always needs support and nurturing, imply that the teacher participants are aware of their strong role in supporting and developing gifted learners. In addition, those teachers who think that gifted learners should be 'showy' high achievers may be surprised to learn that it is common for gifted students to hide their gifts (Cross & Coleman, 2014). Therefore, Omani teachers are in pressing need of INSET programmes on giftedness which instruct and enlighten them more about this topic and make them realise that giftedness is a complex construct that incorporates many definitions. They need to be aware that intellectual abilities and information retrieval may not be as important as creativity, social abilities or motivation (Olthouse, 2014).

The following section discusses the ITG the interviewed teachers in the four school cases appeared to hold.

7.2 Teachers' Implicit Theories of Giftedness (ITG)

This section attempts to provide a response to the second research question '*What implicit theories do cycle two Omani teachers hold about giftedness?*'. Overall, teachers in this study seemed to hold an inclusive definition of giftedness which perceives giftedness as a multi-dimensional construct.

7.2.1 Teachers' ITG are shaped by culture

The findings revealed by the focus group interviews seem to be consistent with the cultural notion held by many key giftedness scholars (such as Sternberg & Davidson, 1986; Philipson & McCann, 2007; Kaufman & Sternberg, 2008; Neihart & Toe, 2013). The findings reflected that culture seems to play a major role in shaping Omani teachers' ITG. The influence of culture clearly stood out when teachers started to talk about the relationship between giftedness, gender and the domains of giftedness. Most participants appeared to hold the belief that both males and females have equal opportunities for being born with innate abilities, but for cultural and societal reasons males have wider opportunities to be recognised and visible than females. These findings are in accordance with Brizendine (2006), who maintained that behavioural differences between men and women are rooted in biological differences formed before birth; however, male and female brains are more similar than different. Similarly, Caudill (2006) stated that male and female gifted abilities are almost identical, but societies and cultures teach different values and expectations to males and females and this has created the difference. In relation to this, teachers in this

study claimed that although many gifted qualities may be present in girls, they are overlooked for two reasons. The first reason is the nature of roles that women and men play within Omani society. According to most, there is imbalance in the responsibilities held by both genders even after women entered the workforce. Women take on more responsibilities for parenting tasks and household chores than males. Accordingly, this imbalance of responsibilities acts as a constraint that limits Omani females from thinking about and discovering their hidden abilities, whereas for males the situation is easier. Reis and Hébert (2008) noted that especially in Arabian societies, males are often socialised since birth into the belief that males are the providers for the family and that they should always strive for perfection. Therefore, males will end up believing that in order to be a man, they must be “the best” at everything they do. Accordingly, males put themselves under a lot of pressure to be the best (Reis & Hébert, 2008).

The second reason behind the imbalance in giftedness manifestation is the conservative nature of the Omani society, which does not welcome the idea of females appearing in public. Parents usually play a huge role in socialising their daughters to perceived social standards, such as how girls should behave, be polite, dress, speak, and so on (Reis & Hébert, 2008). As a result, gifted girls may prefer to hide or underestimate themselves, whereas boys are encouraged and supported to develop, practise and display their gifts in public. In more reserved families, girls' gifts are restrained before they think about taking them beyond the walls of their homes. Silverman (1993, p. 296) stated *“Girls’ aptitude for social adaptation often prevents the detection of their giftedness, which, in turn, inhibits the development of their talents.”* Even if teachers notice something uniquely different within a girl student, if

her parents are not supportive and do not give their consent to take this behaviour further, a teacher cannot do anything about it.

The influence of cultural norms on teachers' ITG become very noticeable as teachers started to talk about how giftedness domains are sometimes judged in the light of Islamic principles and cultural values. With regard to Islamic norms, the majority of teachers, for example, stated that in their schools, musical giftedness is not acknowledged because the dominant Islamic belief says that listening to and playing music is religiously unacceptable. The same is also said about singing accompanied by music. Although most of the teacher participants admitted that they have observed many students in their schools who perform extremely well in these two areas, they commented that such gifts usually die out as the child grows up. This is because at an early age in religious terms a child is not considered responsible for his/her behaviour, but as s/he reaches the age of puberty, s/he becomes accountable for his/her actions. Therefore, a child may give up an interest in music even if s/he is extremely keen on pursuing it because it clashes with society's Islamic beliefs. As evidence of this, the science teachers at the B School collectively said that even if one of their own children displayed a gifted performance in music or singing, they would stop him/her from pursuing in this domain. This strict position by teachers is understandable because as parents, they are responsible for bringing up their children according to Islamic norms. They do not want their children to commit sins that may lead them to hell. It is important to highlight here that Muslim scholars have been continuously debating the permissibility of singing and music. The majority and strong opinion of scholars of Quran (The Holy Book) and Sunnah (the prophet Mohammed's sayings), hold that anything accompanied by music is not permissible (haraam). However, another team of Muslim scholars permits singing on condition that it is not harmful to Islamic morals.

This means that there is no harm in being accompanied by music that is not exciting. Despite the two views, most people in a dominant Islamic society like Oman and due to other Islamic considerations tend to follow the first team which prohibits singing with music. This is because they feel safer as they do not commit sins by being involved in musical activities. As a result, singing is not encouraged, and singers are viewed as breaking Islamic principles, so they are not well-respected. With regard to gender, some Omani families tend to be less strict and encourage their sons to develop their singing gifts in public, especially if it is without music (inshad), whereas females are not allowed to do so.

To conclude, the domains in which giftedness are recognised are reflective of society's values and are subject to historical influences (Cross & Coleman, 2014). Omani society's views towards some domains inevitably contributed in shaping Omani teachers' ITG as the findings indicated that teachers, whether consciously or unconsciously, tend to overlook many gifts and exceptional abilities that do not accord with society's norms.

7.2.2 Does a family's economic status matter?

Teachers' theories regarding this issue varied and sometimes the same teacher gave contradicting responses to the same question. The majority, however, expressed the belief that giftedness manifests more among people of poor families. This belief, as participants explained, is based on the real examples of gifted people they have witnessed in the society they live in, most of whom belong to poor families. Teachers justified this by concluding that children of poor and low-income families are driven by their needs to discover themselves and make use of their potential as a source of income. On the other hand, a number of teachers held the belief that while it is not

exclusive, giftedness is more likely to manifest and be nurtured among children of well-advantaged families. This is because good financial support and well-educated parents play a big role in the development of giftedness, whereas gifted children coming from poor families may not have the support that children from families with average or high incomes have. Another possible reason for this inequity could be due to the fact that gifted students who are tired, poorly nourished, or distracted by family circumstances might not participate enough in classroom activities, for this reason, they cannot be recognised and recommended (Peterson & Margolin, 1997). As a consequence, giftedness has bigger opportunities to be nurtured among children of middle or high-income families, whereas the potential of children of low-income families is very likely to die out. This explanation appears to be similar to what Dr. Mary Frasier, the founder and director of The Torrance Center for Creative Studies, described as a facetious explanation during an interview as cited in Grantham (2002, p.50). Dr. Frasier noted that one of the strong reasons that creates barriers for the underrepresentation of poor children in gifted programmes is the belief that they do not have certain kinds of advantages in their home. She added that there is a list of prerequisites to being gifted which create barriers and among these are that you must have two parents and they must be college-educated.

Relating giftedness to middle- or high-income families by teachers in the present study seems to be more congruent with the findings of many previous studies (Jaffri, 2012; Lee, 1999; Moon & Brighton, 2008; Peterson & Margolin, 1997). Moon and Brighton (2008) found out that more than one third of their participants held the belief that academic giftedness is not present in low economic groups in a society. This finding caused concern for the researchers as it indicated that disadvantaged young students

in poor families are seriously deprived of the opportunity to be nominated for gifted programmes and services. Peterson and Margolin (1997) discovered that Latino students and students from other minority groups were passed over by their teachers, which implies that the teacher participants consider some degree of wealth as an important criterion that teachers refer to when they are asked to nominate gifted learners. In line with these findings, many giftedness scholars (VanTassel-Baska, Patton & Prillaman, 1991; Swanson, 2006) also pointed out that relating giftedness to advantaged families and their neighbourhood has created a challenge because when teachers are asked to nominate students for gifted programmes, they tend to nominate mostly children of middle or high-income families, which means that children of poor families are under-identified. The difficulty of identifying low-income students was also noted by Slocumb and Payne (2000), as they pointed out that identifying gifted students from middle class homes is easier than identifying giftedness in poverty.

Regardless of which children with which family backgrounds teachers tend to nominate more, finding out that teacher participants in this study do consider the family's economic status when thinking about gifted learners, created concern about the accuracy of their identification. These worries increase especially when we know that teachers' opinions are currently taken as the first nomination tool and may, indeed, be the only one for gifted programmes and services in our schools. Therefore, although it is not as easy a task as it sounds, it is important to work on changing teachers' inner beliefs regarding a family's economic status and giftedness. Dr. Fraiser noted that even if we use the best test and the best procedures for getting referrals, there remain these ingrained attitudes about the abilities of poor children that will thwart efforts intended to identify children who are gifted (Grantham, 2002).

It is worth noting that in line with the exploratory nature of the present study, investigating teachers' ITG concerning the relationship between giftedness and the family's economic status was only done to obtain an initial impression about whether Omani teachers do consider the family's wealth when thinking about giftedness or not. Knowing that Omani schools have a database of students whose families qualify for government benefits, further quantitative studies might be conducted using these data to see how many students from these low-income families are among the names listed as gifted. This can give a more reliable indication about how a family's economic-status is considered by Omani teachers when making lists of gifted students.

7.2.3 Malleability notion of giftedness

Regardless of the controversy concerning the roots of giftedness (whether inherited or granted by God), all teacher participants seemed to have a consensus on perceiving giftedness as a malleable/developmental construct that flourishes and is nurtured with assistance from a set of contextual and learning/educational factors. The malleable view expressed by teachers in this study can be classified into two main sub-views. The first view, which the majority of teachers seemed to hold, is that not everyone can be gifted. That is to say, only individuals who possess innate potential are very likely, under certain contextual factors, to develop their potential into a visible gift. Teachers who held this view are mostly the same teachers who believed that giftedness is inherited, or an endowment granted by Allah to specific people. This view concerning the development of innate potential into remarkable gifts was reflected by most giftedness models presented in Section 3.3 and was assumed by other giftedness theorists (such as Freeman, 2012; Porath, 2006; Cross & Coleman, 2014). For example, Freeman (2012) asserted that very best people achieve global status because they work hard to maximise their inborn gifts. Through her compromised

position, Freeman (2012) argued that famous exceptional people, like Albert Einstein and Marie Curie, must have had inborn gifts which were made visible through hard work and solitary practice. This is quite similar to what science teachers at the A School said as they were attempting to defend their position regarding the lack of relationship between giftedness and academic excellence. The interviewees maintained that many students can be like Newton: they might be gifted and interested in a specific area, so they are fully motivated and focused on learning and practising their gift, which may negatively, in turn, influence their performance in other academic areas. In the same vein, Porath (2006) maintained that gifted learners follow the same developmental path as other children, but the nature of the path may be qualitatively different. Porath (2006) presented her integrated model through which she proposed that gifted children demonstrate an 'optimal level' of conceptual understanding that is related to neurological maturation and is generally more advanced than that of children of average ability. This conceptual understanding is more related to age than domain-specific skills. Accordingly, unlike other learners, gifted learners have the ability to integrate their central conceptual understanding and the specific knowledge in their domains of talent in ways that make their products more advanced and complex (Porath, 2006).

The second malleable view held by teachers in this study disregards the role of genes, heredity and gift as a God's endowment and it assumes that any child has the potential to be gifted in some areas. This view suggests that with self-motivation and commitment, specialised training and constant practice in a specific area, a person can develop giftedness. Such a view echoes the theories of a well-known scholar in the area of genius and giftedness named Anders Ericsson who had decades of ground-breaking laboratory work on expertise. Ericsson (2006) advised scholars of

gifts and talents to disregard the idea of innate talent and any other qualities which people perceive as basic characteristics of those we call geniuses. His earlier work on genius demonstrated the strong effect of deliberate solitary practice on high level performance. Therefore, he claimed that inherent genius is just a myth. If we accept Ericsson's (2006) position, this means that even the most extreme examples of genius like Mozart and Newton are the result of hard work and solitary practice. However, as argued by Freeman (2012):

when did Albert Einstein put in years of practice in relativity presented in his four published papers at the age of 21 which changed ideas of space and time? And where did Marie Curie study and practice science, as it was forbidden to Polish school-girls at the time? She had been a poor governess before her late entry to university in Paris. (p.14-15)

It is worth clarifying that Freeman (2012) did not undervalue the importance of practice in giftedness development, but she considered practice as a vital factor in perfecting the skills. In relation to the second view, some teachers in the present study even went further by maintaining that giftedness can only be a matter of mimicry. They believed that a genetic/innate predisposition is not a requirement for the existence of giftedness. According to them, a person can still develop an exceptional performance and excel in a specialised area through mimicking someone s/he lives with, such as parents, siblings or even someone s/he is fond of. In support of this view, some teachers justified the dominance of a particular gift in a certain family by the continuous imitation of the family's members to that gift. In addition, I believe that teachers' view of mimicry is a result of some real examples they have witnessed in their community. It is quite noticeable that some young Omani individuals have recently started to display exceptional performance in areas that are even unusual in Omani culture.

As understood from the above, the majority of teachers are convinced by the malleability notion of giftedness. The findings also emphasised the importance of learning and education as a powerful factor in giftedness development. For example, we have seen in Chapter Five (Section 5.1) how maths teachers at the F School pointed to learning opportunities and schooling as the primary factors behind the manifestation and flourishing of giftedness. They explained that as the child passes to the next stage of their life (home, nurseries, schools and even post-schooling), s/he is exposed to wider and richer learning and educational opportunities that assist giftedness to flourish and develop further. This emphasis on learning and education in the process of giftedness development implies that these teachers might reasonably plan their teaching on the assumption that giftedness is amenable to development (Blake, 2010). However, with the current lack of training on giftedness and how to deal with gifted learners, Omani teachers will be doing this randomly and so they may fail to meet the minimum needs of gifted learners in their schools. Unfortunately, many gifted students are taught in regular classrooms by teachers who are either untrained or unknowledgeable about their needs (Paine, 1990; Finley, 2008). This suggests that our teachers need to be enlightened on the basic strategies of how these gifted learners should be instructed. They need to be trained on how to modify the curricula in a way that satisfies their students' gifts. Moreover, Omani teachers need to be enlightened on how to create learning environments that match different learners' capabilities by setting up complex learning environments that are characterised by complexity, incentives to learn and rich learning opportunities (Porath, 2006). Further, our teachers need to understand the various ways through which children observe, interpret and express themselves. More importantly, the INSET programs must

prepare teachers to be facilitators, not dominators; they are not the only source of knowledge (Alamer, 2014).

7.2.4 No need to be academically excellent

The majority of teachers in the current study believed that giftedness does not exclusively mean outstanding performance in academic subjects such as mathematics, science and languages. According to them, giftedness can still manifest in one of the school subjects as well as in non-school subject areas. This finding seems to accord with Reis's and McCoach's (2000) conclusions in their theoretical review which revealed that no reason exists to claim that gifted learners must score high academically or that ability and achievement are strongly correlated. It is vital to clarify that some teachers in the present study distinguished between two types of giftedness: academic and non-academic giftedness. While the teachers believed there is no strong relationship between academic excellence and giftedness, they also believe that giftedness can be defined as academic giftedness and giftedness in non-academic domains. This distinction concerning giftedness was previously made by Renzulli (2005) and Cross and Coleman (2014). Renzulli (2005) mentioned school-house giftedness and creative-productive giftedness. According to Renzulli (2005), school-house giftedness, or test-taking or lesson-learning, is mostly valued in traditional education settings and most easily measured by scores in cognitive ability tests, whereas creative-productive giftedness describes the development of original thoughts, solutions, materials and products in specific domains. Cross and Coleman (2014) suggested that in a school context, two types of giftedness domain can be identified: foundational and performance. Foundational domains are the subjects that are most promoted at schools such as mathematics, reading and writing; they serve as foundations for other domains and are determined by a test of ability and / or

achievement. Performance domains, such as football, auto-mechanics and civics, are usually determined by achievement and/or performance. Teachers in this study believed that while some students may manifest outstanding performance in one or more of the school subjects (foundational domains), other students might not do so. There are students who get low scores in school subjects but perform outstandingly in other performance domains. This view seems to imply that these teachers do not solely rely on test scores when nominating students for gifted programme. However, teachers admitted that in reality they often tend to prioritise students with the highest academic scores. A possible explanation for this is that since our schools lack a standardised identification system, teachers are very likely to rely on academic test scores. This is because on one hand, test scores save teachers time as they are easily referred to. On the other hand, teachers feel it is fairer to use students' scores of academic tests because this may alleviate feelings of injustice.

7.2.5 Multiple intelligences rather than IQ

Overall, teacher participants argued against using high IQ scores and high general abilities tests as primary measures when judging giftedness. Nonetheless, the teacher participants believed that a high IQ may act as a vital ingredient in certain types of giftedness, such as academic giftedness. This finding seems to accord with Piirto's (1995) thoughts on giftedness (see Section 3.3.5), where she assumed that a high IQ is an important element in realising science, mathematics, verbal and academic gifts, but it is not necessary for performing, mechanical and spiritual gifts. One might wonder how these teachers, who have not received any pre-service or in-service input on giftedness and its associated models and theories, have constructed such implicit theories. My explanation to this is that while it is true that most teachers have not been exposed to giftedness theories, as a member of the Omani educational context, I have

noticed that in recent years Gardner's MIT has markedly dominated teacher's INSET programmes. Regardless of the debates over MIT, it has become very popular among Omani teachers because it meets the global trend of making students the centre of the educational system (Al-Kalbani & Al-Wahaibi, 2015). This is evident through the numerous empirical studies that have been conducted to test the MIT in different Omani educational contexts (such as Al Seyabi & A'Zaabi, 2012; Al-Kalbani & Al-Wahaibi, 2015; Naqvi, Khan & Al-Mahrooqi, 2019). Through the MIT, Howard Gardner stretched the word 'intelligence' beyond its application in the educational psychology by defining it as "*the capacity to solve problems or to fashion products that are valued in one or more cultural setting*" (Gardner & Hatch, 1989, p.5). Gardner and Hatch (1989) also claimed that there are eight kinds of human intelligences: Linguistic, logical mathematical (logicians, mathematicians and scientists), musical (like Mozart and Leonard Bernstein), spatial, bodily kinaesthetic, intrapersonal and interpersonal and natural intelligences.

In relation to giftedness, Gardner (1987) advocated the notion of domain-specific when he assumed that a person may have a certain type of intelligence that enables him to display high performance in a specific domain. Moreover, Gardner emphasised the developmental view of giftedness when he assumed that having a specific kind of intelligence means that if you are placed with other people and exposed to the same contextual factors, you are expected to develop a high level of performance in that area of intelligence more quickly in comparison to others. Based on these views about intelligence, Gardner (1987) argued against using IQ scores as a criterion for admission in gifted programmes in schools, because:

Gifted programmes in schools which admit people with an IQ over 130 but don't admit people with an IQ of 129 are predicated on the notion that gifts are

general, or that there is a simple academic gift, which is a more modest claim, but I don't think either of those are true. Gifts are much more domain-specific and so is creativity. (p.31)

Knowing that Omani teachers are highly influenced by the notions of the MIT, one would expect that the educational process is adjusted to serve these notions. However, in spite of the spread of MIT among Omani teachers, AL-Kalbani and Al-Wahaibi (2015) reported that it is not implemented in Omani government schools and students are labelled as good or weak according to their school tests' marks. AlSeybi and A'Zaabi (2012) found out a substantial misalignment between the English textbooks' profile of multiple intelligences profile and that of the students in almost all of the intelligences. They stressed that in order to improve the quality of the students' learning experience, the MOE should urgent revise the Omani EFL curriculum through the lens of the MIT. AL-Kalbani and Al-Wahaibi (2015) noted that one reason behind not using MIT in Oman schools is that not all the MIT indicators being used are suitable in Omani culture. For this reason, the two researchers conducted a study mainly to examine if the MIT could explain the intelligence structure of school students in Oman through using Rogers' indicators of Multiple Intelligences (a self-inventory created by Dr. Keith Rogers based on Howard Gardener's theory). The two Omani researchers concluded that their study provided evidence that the MIT is fit to describe the intelligence types of Omani school-children. Future research can be conducted by using Al-Kalbani's and AL-Wahaibi's standardised Rogers' indicator of Multiple Intelligences test to find out if students' types of intelligence are the same as his/her claimed gift. Further research also can be done on the usability of this test by school administrative staff to identify gifted students in the school, so they can be helped to develop their gifts.

7.2.6 To be gifted is to be creative

Creativity was identified as a vital dimension of giftedness by most of the interviewed teachers in the present study and this finding is in line with most giftedness models presented in Section 3.3. In this respect, Cross and Coleman (2014) maintained that a parallel situation to the question of who is really gifted is the problem of using creativity as a criterion for being gifted. This was evident in how the teacher in the present study defined the word 'creativity' and how they related it to giftedness. Some teachers perceived creativity as a characteristic of giftedness, whereas others viewed it as a gift in itself. Al Hajri (2016) attributed the unclear association between the two constructs to underestimating the importance of creativity in Arabic traditional educational systems in general, of which the Omani educational context is part. According to Al Hajri (2016), the underestimation of creativity has resulted in a shortage of pedagogically-structured programmes that can enhance creativity of Omani students at schools, though there have been some endeavours in this regard. For instance, in her recent study in which she examined Omani EFL teachers' implementation of 21st Century critical skills, Al Khatri (2019) stated that the Omani EFL curriculum has made some attempts to enhance creativity and innovation through projects. Through these projects, students are supposed to submit a project each semester, either individually or in groups. However, the researcher criticised these projects because they are mainly traditional as students submit models or charts which do not reflect the skills of creativity and innovation.

The strong emphasis placed by teachers on creativity as a central element of giftedness reflects their multidimensional perception of giftedness which expands beyond IQ scores. This means that creativity should be considered when judging giftedness. Through my personal contact with some personnel in the MOE (A. AL-

Mabsali, Februray 20, 2018), it came to my knowledge that there are some modest endeavours by the MOE towards standardising and using the Torrance Test of Creative Thinking to measure students' creativity at government schools as part of the diagnostic process of giftedness. The tasks in the Torrance Test evaluate the ability of an individual to generate many ideas from a given stimulus with verbal and graphic modes of expression (Besançon,2013). It is widely used in other Middle-eastern countries to measure fluency, originality, and elaboration for creativity (Subhi-Yamin, 2012; El Khoury & Al-Hroub, 2018). Yet, Besançon (2013) pointed out that divergent thinking is only one part of creativity, so if a child obtained a high score in a divergent thinking task, /she is not necessarily creative. Besides, Cross and Coleman (2014) contended that creativity tests can be workable for early ages, but as the child grows up this means of testing creativity becomes unstable because the standard for judging creativity changes from that of the individual to that of performance in a particular domain. The implication in the Omani context is that to urge creativity within their students, teachers need to be enlightened about how to judge students' performance in terms of creativity. More importantly, Omani educators need to be trained on how to allow their students' creativity to manifest by creating suitable opportunities, a supportive environment, enthusiastic motivation and innovative and imaginative experiences whilst teaching (Al Hajri, 2016).

7.2.7 Remarkable performance is more important

There is a consensus among the majority of teachers that the label of 'gifted' can only be assigned to a learner who displays a remarkable performance in any specific domain, whether scholastic domains, such as such science, mathematics, chemistry, arts, or other domains like music, sports, acting etc. They argued that even if a person is diagnostically judged as being gifted, this potential remains useless or might even

die out if it is not translated into visible performance. This argument is congruent with the models discussed in Section 3.3 as they all maintained that gifted learners possess potential (predictors/natural abilities) which need to be converted to extraordinary achievements in a certain domain, such as mathematics, sports, music etc. Similarly, Cross and Coleman (2005, 2014) argued that having a group of gifted learners with unrealised potential is unacceptable because students are supposed to show signs of such potential. Cross and Coleman (2014) claimed that they found instances of learners being assigned to the gifted category based on ability scores not based on their performance at school and that this situation has created two problems. The first problem is that those students who are assigned to gifted programmes based on their ability scores do not show their abilities and they might sit beside peers who are performing as well as or better than the gifted group. This may raise a question about the benefit of high scores, is the potential or the label as gifted more important than performance? The second problem is that those who perform highly, but scored low in ability tests, are not assigned to the special programmes. Cross and Coleman (2014) contended that relying solely on the learners' ability scores denies appropriate instruction for low-performing gifted children and high-performing children because neither is being taught at their instructional level. An important implication of these findings is the necessity to have a compromise position regarding potential and actual performance. That is to say, while the superiority of the individual on the dimension(s) which determine giftedness have to be demonstrable through one or more tests that are valid (Sternberg & Zhang, 1995), it is inappropriate to deny performance. It is true that teachers in this study valued performance highly and considered it as the first indicator that leads them as teachers to think about a student in relation to giftedness. However, they do also encourage the usability of further screening and diagnostic

procedures to support decisions about a student's giftedness.

To summarise, this section focused on discussing the prevalent teachers' ITG as revealed by the analysis of the data from the focus group interviews with the teacher participants in the four school cases. Surprisingly, the findings revealed that although the interviewees have not been exposed to any specialised training on gifted education, most of their ITG seemed to accord with the notions proposed by the theoretical models discussed in Section 3.3. Interestingly, many previous studies conducted to investigate teachers' ITG in other contexts were also found to conform to various theoretical definitions (Miller, 2009). For instance, a quantitative study with a similar objective surveyed 900 teachers, gifted-education specialists, regular classroom teachers and administrators conducted by Schroth and Helfer (2009) found that a large majority of participants agreed with the notions that were proposed by the various prominent models of giftedness.

The findings of the present study also revealed that some tensions and contradictions exist among Omani teachers' ITG. In relation to this, Schroth and Helfer (2009) noted that multiple and perhaps contradictory understandings are seen as a source of opportunity rather than a problem. This is because when various and conflicting conceptions are adopted by a particular education system, this provides a reason to offer an expanded variety of services. This means that a good gifted programme in a particular educational context would attempt to provide services according to the various definitions, understandings and theories that are held about a gifted learner in that context. For instance, if a gifted learner is defined as a high-achieving student, then accelerated courses may be the proper strategy for them, whereas for under-achieving gifted students, a mentorships programme can meet their needs. Artistically

and creatively gifted students can be enrolled in a specialised course of instruction. Now that I have discussed teachers' ITG, the next section attempts to discuss the key sources behind such ITG as indicated by the data from focus group interviews with teachers.

7.3 Professional life experience as a key source of teachers' ITG

Although many of the ITG and beliefs revealed by the teachers seem to accord with the notions of the models discussed in Section 3.3, teachers confirmed that the theories, thoughts, conceptions and beliefs they hold about giftedness are personal theories that have been formed through various sources. As a response to the third research question '*How have cycle two Omani teachers constructed their implicit theories pertaining to giftedness?*', teachers listed a number of sources including their professional life experience, media, personal reading and their personal life experiences. The majority of teachers agreed that the first key source of their ITG is their professional life experiences which include a range of examples, such as daily interactions with a diversity of learners, some of whom are the gifted learners. In addition, their ITG have been formed by daily observations through daily contact with different students and the comparison teachers make between them. Moreover, the interviewees pointed to teachers' discussions and sharing feedback on students as a significant source of teachers' ITG. Surprisingly, the majority of the teachers collectively maintained that pre-service preparation and INSET programmes play a minimal role because they did not experience any specialised training on gifted education at either stage.

It is worth highlighting that this study does not aim to judge teachers' theories and beliefs concerning giftedness; however, teachers' rating of pre-service and in-service

training as the least influential contributors to their ITG is of note. This is because there is increasing evidence that the lack of teachers' knowledge about giftedness is related to their professional development at both pre-service and in-service levels (Fraser-Seeto, Howard & Woodcock, 2013; ALamer, 2014). This may imply that due to the lack of training on giftedness, teachers in this study may have constructed some myths and misconceptions on giftedness which may in turn have affected their practice when dealing with students. It is widely agreed that teachers' theories and perceptions of students affect their instruction in their classroom (Geake & Gross, 2008; Schroth & Helfer, 2009; Siegle et al, 2010). In relation to giftedness, there is evidence that teachers' beliefs and theories of gifted students have an important impact on their decisions regarding adopting particular teaching strategies and their willingness to fulfil gifted students' needs, as well as how keen they are to adopt an appropriate form of instruction.

Many researchers (such as Finley, 2008; Al-Makhlid, 2012; Al Mulla & Fateel, 2017) stated that many gifted students are taught in regular classrooms by teachers who are not trained, not knowledgeable about their needs and skills, or lack the confidence to identify and meet the needs of gifted students. Al Mulla and Fateel (2017) stated that gifted education is widely neglected or goes unnoticed in the GCCC and that traditional schools possess no official identification, special programmes, classrooms, curricula, teachers, or coordinators for gifted students. My exploration of the state of gifted education in the Omani government schools confirmed the findings by AL Mulla and Fateel (2017). The study also found that meeting gifted learners' needs is left at the mercy of regular classroom teachers. The attempts of the Omani educational system to meet the special/inclusive education (Education for All) seem to disregard this category of learners and, indeed, ignoring training on gifted education during pre-

service and in-service training confirms this. This means that if educational justice for gifted learners is to be achieved, all teachers should be trained so they develop knowledge, skills and practical experience that enable them to implement gifted education effectively. Failure in meeting gifted learners' needs will not be *"the fault of uncaring teachers but unknowing teachers. It will be the fault of a teacher training system that doesn't recognise the need for gifted education"* (Hodgson, 2013, p.1 as cited in Al Mulla & Fateel, 2017). In this vein, it is worth noting that finding out that teachers' ITG could have been formed through various sources which have been ranked prior to INSET and pre-service training may signpost that some of these deep-rooted theories are, in fact, myths and misconceptions which are not easy to change. This means a teacher might enter and leave a training programme with a relatively unchanged set of myths about gifted learners. Therefore, training programmes on gifted education need to be designed in a way that challenges teachers' common misconceptions about gifted students.

This section has discussed the key source behind teachers' ITG as claimed by the teachers during the 11 focus group interviews. The following section of the chapter focuses on discussing the main remarks concerning the current status of gifted education practices.

7.4 Gifted education practices

This section discusses the findings related to the existing gifted education practices at the four investigated schools in an attempt to construct an understanding of the current reality of gifted education. Important conclusions have been drawn pertaining to the identification practices and the factors that influence gifted education practices that are currently taking place at Omani government schools.

7.4.1 Lack of a standardised identification system

The findings revealed that the four investigated schools lack a standardised identification system for identifying gifted students. Students' scores in academic achievement tests are often used as a measure of academic giftedness, whereas for other types of giftedness, all four schools appeared to randomly deploy convenient tools that are mainly based on observing students' performances by someone such as teachers, parents, peers or social workers. Therefore, no systematic procedure for diagnosing and identifying gifted learners is currently being implemented. In fact, this is not surprising given the lack of national consensus on the definition of giftedness (El Koury & Al-Hroub, 2018). It is widely agreed that the way in which giftedness is conceptualised in a context has consequences on the identification procedures, programme offerings, and the ultimate success of gifted education overall (Sternberg & Davidson, 1986; Renzulli, 1986; Lee, 1999; Philipson & McCann, 2007; Schroth & Helfer, 2009; Siegle et al, 2010; Tirri & Kuusisto, 2013). The first step in the identification process should be to clearly define what is meant by giftedness because without a clear definition, those who are asked to nominate students are very likely to rely on previous training and/or stereotypes they have developed, which could result in inherent biases (Siegle et al, 2010).

Comparing Oman to the nearby countries of the GCCC and the Middle East, of which Oman is part, it can be concluded that Oman is very behind with regard to the implementation of giftedness identification. According to Subhi-Yamin (2009), in the Middle eastern countries, giftedness is normally defined in the light of the following criteria: meaning high intelligence, high creativity, high task commitment, and behavioural characteristics, with high intellectual ability being one of the main characteristics that defines a gifted student. Hence, based on these criteria, the current

identification measures that are being administered in most of these countries entail: standardised intelligence tests, creativity tests, achievement tests that measure abilities, rating scales such as the SRBCSS (Scales for Rating the Behavioral Characteristics of Superior Students) and attitude surveys. Task commitment is measured through achievement tests, rating scales, and the judgment of teachers and parents (Subhi-Yamin, 2009, El Khoury & AL-Hroub, 2018). Unfortunately, findings revealed that none of these measures are administered in any of the investigated schools. Because all cycle two schools are centrally administered by the MOE, we can assume that the situation in all cycle two government schools across the country is the same.

A possible explanation for this as indicated by the findings might be the lack of a reasonable budget allocated for gifted education; another reason may be the lack of representatives for the Gifted Learners Diagnosis and Caring Unit in the 11 RGEDs. Implementing such tests and scales in government schools with the high number of students requires forming teams and committees whose members are well-prepared on how to apply these tests properly. Thus, with a lack of rationalised tests and scales, the major measure that is explicitly mentioned by teachers and administrators is observation and nomination by teachers and in some cases parents, self-nomination and the discovery by social workers. With respect to parent notifications/nominations, El Khoury and AL-Hroub (2018) stated that parents' nominations involve the use of forms, questionnaires and rating scales that help to provide schools with the necessary information about the child's characteristic, skills and behaviors. However, as described by participants in this study, this indicated informal and random use. Based on the participants' comments, parents just notify teachers or schools' social workers about their children's potential; this also applies to peer nominations and social

worker's observations. Participants did not mention any forms or checklists being used. It is all a matter of observations and feelings, which suggests that their decisions on nominating students as being gifted are very likely to be subjective and biased.

With regard to teachers' nominations, it is assumed that because teachers interact with and observe students more frequently in a variety of situations, they are in an advantageous position to play a central role in identifying students who are gifted (Bracken & Brown, 2006). Thus, teacher nomination mostly serves as the sole means of identifying the gifted children, whereas in very rare situations, it is supported with other tools. In Schroth's and Helfer's (2008) study, teacher nomination was rated as the second most effective method of identification after performance assessments; it was ranked ahead of standardised tests. The study also found that teacher participants, not surprisingly, ranked teacher nominations as the most effective and efficient method of identifying gifted students in the classroom. As with the present study, finding out that Omani teachers have very limited pre-service preparation and INSET programmes on giftedness raised some questions about their ability to make judgements about their students' behaviour. In relation to this, Rohrer (1995) pointed to teachers' pre-conceived notions about giftedness and their role in how teachers judge gifted students. Rohrer noticed that teachers often falsely rate the student 'good' or 'bad', depending on how they personally feel about that particular student. In addition, many scholars (Grantham, 2002; Moon & Brighton, 2008; Hernández-Torrano & Tursunbayeva, 2016) pointed to teachers' nomination as the main explanation for the problem of underrepresentation apart from stereotyping and socio-economic biases.

From the above, we can conclude that the current identification process adopted by all schools relies heavily on subjective nominations by various people, including teachers as the major nominators beside parents, peers, social workers and student self-nomination as well. Involving various people in the identification process is important, but these nominations should involve using special forms and checklists to ensure a systematic process and decrease subjectivity. More importantly, nominations should not be used as the sole method, but it is best to have these nominations as supplements to other assessment tools. Multiple assessments can address the complexity involved in identifying gifted students and improve the reliability of such identification (El Khoury & AL-Hroub, 2018).

In fact, through my personal contact with the MOE personnel in the Gifted Learners Diagnosis and Caring Unit (A. Al Mabsali, February 20, 2018), I was informed that the MOE is currently in the process of standardising an identification procedure which seems to adopt Renzulli's identification system. To clarify, the identification system which Renzulli (1990) proposed was based on his Three-Rings model. It aims at identifying all the characteristics a gifted learner has through using a six-step system (El Khoury & Al-Hroub, 2018). To identify gifted learners, Renzulli (1990) suggested six steps: (1) test nomination, (2) teacher nominations, (3) alternative pathways, (4) special nomination, (5) notification and orientation from parents and (6) action information nominations (for detailed information on Renzulli's identification system, see Appendix 7.1). Findings revealed that neither group of participants has any idea about this system, which suggests that, just like the piloting schools, other schools are not involved in the development and standardisation of the identification system.

To this end, in Oman a standard definition of “giftedness” is yet to be determined. The findings of the present study call for more examination and further development regarding defining and identifying procedures of gifted learners. This study’s findings concerning teachers’ ITG can serve as a useful in articulating and forming a national definition of giftedness. Teachers’ ITG which perceives giftedness beyond intellectual ability should be considered when defining giftedness. In addition, teachers’ ITG concerning the relationship between giftedness and academic excellence, gender, family’s economic status should be considered as well. Further, the cultural values and norms that are indicated in the teachers’ ITG should also be reflected in the national definition.

7.4.2 Significant influential factors on gifted education

This section discusses the main factors that are found to have a significant influence on gifted education in the four school cases. As Figure 7.2 shows, these factors are school’s location, its administration, teachers’ attitudes and community support.

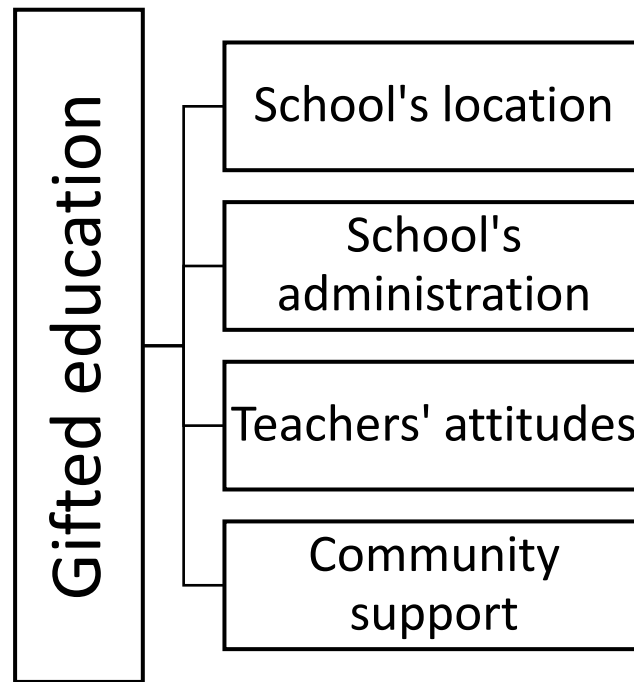


Figure 7.2 Factors influencing gifted education at the four schools

7.4.2.1 Importance of school's location

Findings revealed that gifted education practices vary among the four school cases. While some schools seemed to exert more effort in the area of gifted education, others showed very little effort. It is clear from the responses of the school administrators that a school's location plays a vital role in this regard. For instance, in comparison with the three other schools (A, B, F schools), very few initiatives of gifted education were reported at the D School. A possible explanation for this as understood from the participants' responses is that the school's location makes the school hard to reach, so it is rarely visited by committees and the BNGED and MOE personnel. As a consequence, the school generally gets less support from the MOE. Moreover, the administrators of the D School claimed that, unlike urban schools, the rural mountainous D School receives no financial support from the private sector. Accordingly, with the available school budget, achieving all the students' fundamental learning goals is given priority over meeting the learning needs of specific students.

This explanation is supported by a comparative study between rural and urban schools in Ohio state by Jones and Southern (1992), which found that gifted programmes, such as ability grouping, pull-out programmes and acceleration, are less prevalent in rural than in urban schools because the former is more burdened by the transport requirements of students and more poorly financed. Another explanation why D school appeared less supportive of gifted education, is the nature of the its surrounding rural community which does not encourage the development of gifted children. As discussed in Section 7.3.2, families in mountainous areas adhere to strong community values, are more conservative and less educated. That may indicate that parents do not see any value in making any effort to develop a child's potential as it may not be related to their culture or not serve the family in any way.

Pendarvis, Howley and Howley (1990) stated that the conservatism and shared values of the rural community are found to have higher influence on schooling in rural areas than in urban communities. Therefore, any proposal to change school gifted programmes are seen as a threat to community values. This is because citizens in rural areas may think that gifted programmes would set one group of students apart as elites which, then, may deprive the rural community's future of the most capable young people. Rural communities cannot afford to lose the contributions gifted students can make to the rural community, culture, and economy (Lawrence, 2009). Jones and Southern (1992) study found that parents in rural communities are more reluctant to seek and request changes in the status quo. Moreover, the rural community's strong values and beliefs inevitably influence children's thinking and their desires and attitudes to change. Lawrence (2009) stated that many gifted students from rural areas refuse to leave their communities because they find what they are

told is suitable work.

On the other hand, the three urban schools (A, B, F) although they vary, seemed more efficient with regard to gifted education. To recap on the locations of the three schools: A School (the furthest from the building of BNGED's/ costal and situated in a very populated area), the F School (closest to the Industrial Port and Sohar Free Zone Corporate) and the B School (the closest to the BNGED and situated in a very populated area) demonstrated more positive attitudes towards gifted education. This is evident through the examples of gifted education practices they have carried out within the schools or their participation in external gifted opportunities organised by the BNGED and the MOE (see Section 6.1 in Chapter 6). The location of these schools may be significant to these findings as they are geographically closer and therefore have easier access to the relevant committees and MOE personnel. In addition, although it is not usually as easy as it sounds, the industrial location of the F School gives it a better chance of receiving financial support from the private sector. Another possible explanation is that most parents in these areas are well-educated, a factor that encourages the schools to plan specific activities for the gifted children so that their parents feel satisfied with the schools' efforts, which in turn helps to promote the school's reputation. The same can be also said about the students themselves, since they mostly come from well-educated families with a good level of income, it is expected that they self-report themselves as gifted to their teachers or school administrations. This may encourage schools to do something to satisfy these students and make use of their potential. Hence, the location of the school is found to play a big role in how gifted education operates school there.

7.4.2.2 School administration as an engine

A significant finding from this study is that a school administration team acts as a powerful factor in efficient gifted education practices. That is to say, if the school administrators are enthusiastic about gifted education, more practices and initiatives are planned and carried out, whereas if the administrators have no interest in gifted education, very few endeavours are implemented. The role of school administrators/leaders is considered essential for effectively meeting the needs of gifted student in a school (Robinson, 2003; VanTassel-Baska & Stambaugh, 2005; McHatton, Boyer, Shaunessy & Terry, 2010; Schroth & Helfer, 2008). Robinson (2003) argued that if, for example, administrators are supportive of teachers in differentiated instruction, they are more likely to make decisions with positive outcomes for gifted learners. VanTassel-Baska and Stambaugh (2005) maintained that systemic change occurs only when school leaders proactively support differentiating practices.

When considering the efforts made to support gifted learners by the groups of school administrators in the present study, a vast difference in the amount of effort and enthusiasm can be seen. For instance, comparing the effort of social workers in the D and B School's, it is clear that the latter seems more supportive, as she pointed to many examples of activities she plans and implements to discover and serve gifted learners at her school. For instance, she talked explicitly about how conducting case studies has helped her to identify students' gifts. Another example is the experience of classroom visits she conducted and how such visits also helped her to discover students' gifts; she also described how she then tried to support such students. VanTassel-Baska and Stambaugh (2005) asserted that school leaders need to provide ongoing support within the school, as this support will encourage teachers to devote more time and effort to meet the needs of the gifted. VanTassel-Baska and

Stambaugh (2005) suggested that support from school leaders can include administrative visits to classrooms, questions about how teachers are meeting the needs of gifted learners, provision of necessary resources, staff development provisions and general planning time.

In addition to social workers, the senior supervisor of the school activities also plays an important role in the success of gifted education at a school. During the data collection phase, I managed to meet and interview the senior supervisor of the school activities at three schools: A, B, and F. During the interviews, each one tried to share examples of gifted education activities and initiatives that she has carried out. Remarkable differences in the number of gifted activities offered were obvious among these supervisors. These differences among school administrators pertaining to effort and willingness for gifted education raise two important points. The first is that the gifted education community, whether at the BNGED or at the MOE, need to see issues from the point of view of the school administrators (Robinson, 2003). It is important to involve them and have them at the table to speak their views and make policies for effective opportunities that serve gifted students. Robinson (2003) noted that the field of gifted education has traditionally relied on parents and teachers as the key advocates for gifted children, but we should work to include another key group of advocates; administrators. Schroth and Helfer (2008) asserted that it is impossible to speak in any meaningful way about how identification methods of gifted learners either help or hinder the identification process without involving the school's administrators. A second indication regarding the different levels of effort and initiatives among school administrators could be their lack of knowledge and skills about how to support the field of gifted education. Therefore, effective school leaders need to be informed about

the basics of exceptional student education along with student characteristics, instructional approaches, and financing strategies/ means (McHatton et al, 2010).

7.4.2.3 Teachers' attitudes

This study has revealed that gifted education in the schools investigated is mostly left to the discretion of classroom teachers. Because there are no special programmes for gifted students at Omani government schools, teachers are encouraged to create challenging curricula or instruction that would meet the needs of different students in a regular classroom. However, when talking about their endeavours to support gifted learners, teacher participants in this study appeared to vary in their attitudes and willingness. In spite of the heavy school duties and challenges they face, some teachers seemed very enthusiastic about supporting gifted learners; in fact, they noted that they frequently differentiate their instruction to match their mixed ability students including gifted students. In this regard, different examples of differentiation were given, such as enrichment activities, questions differentiation of questions and projects, where the overall aim of the project is the same, but the requirements vary according to the level of the students.

On the other hand, a number of teachers seemed hesitant about differentiating their instruction and justified their positions by referring to time constraints and a lack of confidence and knowledge about differentiation. This finding is congruent with AL-Khatri's (2019) findings, who found that some Omani English teachers expressed hesitation about changing the curriculum they teach. She explained that Omani teachers may feel insecure about making changes due to the centralisation of the Omani teaching system, where power and hierarchy are considered as key barriers that hinder teachers from challenging the status quo and carrying out developments.

In addition, several studies (such as Geake & Gross, 2008; Al-Makhlid, 2012) related teachers' hesitation and negative attitudes towards gifted learners to the lack of CPD programmes that familiarise teachers with the characteristics of gifted learners. Al-Makhlid (2012) attributed the negative attitudes of three regular classroom teachers in his study about differentiation to their lack of knowledge about the gifted and gifted education on the one hand and the effect of gifted training programmes in enhancing teachers' knowledge on the other. Teachers' lack of knowledge about gifted learners and gifted education can be a possible explanation behind participants' reluctance to differentiate for the sake of the gifted (Al Mulla & Fateel, 2017). This may imply that the teacher participants in the present study may have realised that they have not been fully furnished in their training for teaching gifted students in academically diverse classrooms. Thus, their confidence levels for adapting their lessons to meet the needs of gifted students may be negatively affected. Whitton (1997) found that gifted training courses can lead to strong positive shifts in teachers' attitudes towards gifted learners from negative to positive. This means that if the Omani teachers interviewed for this study had been exposed to adequate training on giftedness and gifted education, their attitudes and reaction towards gifted learners and differentiation could have been different.

Beside teachers' endeavours to differentiate their instruction to meet the needs of academically gifted students, some teachers said that they feel a sense of accountability towards other gifted students. Whenever they observe exceptional performance in a specific area, even if it is not related to their subject area, they try to make a referral to a teacher that can support him/her. For example, the science teacher at the B school talked about her experience with one of her students whom she recognised as having an exceptional ability in painting. Thus, she referred that

student to the arts teacher, who confirmed that the student really is gifted in that respect. Some teachers also promoted gifted students beyond their classrooms or even beyond the school boundaries. The best example was given by the English teacher at the F school who managed to get a valuable opportunity for her student to present a community show organised by a petrol company (see Section 6.1.2.4 in Chapter Six). The teacher believed that this student is a skilled presenter and her skills can be developed by allowing her to use them in an authentic context.

The variation in the teachers' willingness to support gifted learners may indicate that this is dependent on teachers' ITG, which undoubtedly influence their attitudes towards giftedness and gifted learners. If a teacher, for example, believes that a gifted student's potential is malleable can be fostered through teaching, it is very likely that s/he will adjust his/her teaching to support the student's potential. Teachers who acknowledge the varied needs of learners will be more likely to address those needs and differentiate accordingly (VanTassel-Baska & Stambaugh, 2005).

7.4.2.4 Community and private sector support

The gifted education practices at each school seemed also to depend on how much support they receive from the surrounding community, that is from anybody beyond the school boundaries, such as students' families, businessmen, private sector companies etc. In general, the four school cases noted that they receive very limited financial support from the community. This does not mean that the schools are equal in terms of the support they receive because some of them mentioned that they receive some financial support, while others complained about the lack of such support. The A School's senior supervisor of school activities said that she planned to hold specialised programmes to serve gifted learners, but that the limited financial

resources of the school did not enable her to do so. She noted that the MOE does not provide schools a special budget to support gifted education and there is a lack of external financial resources. She showed her disappointment when talking about the negative replies she had received from some well-known businessmen in the local area. For the D School also, there is virtually no external financial support; this could be due to the low economic status of the area. Jones and Southern (1992) noted that economic conditions in rural communities militate against the development of new educational programmes. Hence, the school's location acts as a barrier that prevents the school from receiving financial support from the private sector. For example, the school's principal complained that she had often contacted private sector companies seeking financial support to set up an electronic multipurpose hall where students of specific interest can go and practise their potential. However, the companies she contacted refused to sponsor her, giving their reason as the fact that the Internet is very weak in the area where the school is located. In contrast, the social worker at the B School said that she had successfully managed to get financial support from one of Sohar Port corporates to set up a similar hall in her school. The F School's administrators (the school nearest to the Industrial area) had also managed to gain some support from their local companies. A possible explanation is that these two schools (F and B) are very close to an industrial area, so they are situated in a concession area. Therefore, if the school's demand is accompanied with a strong proposal, they are very likely to get the support they seek from the companies. This is because these companies are obliged to support governmental educational institutions as part of their community service. The A and D Schools are not located within a concession area, which makes it hard to get the support.

In conclusion, analysis of the existing gifted education practices in the four school cases reflected that the schools vary in their endeavours. A number of factors appeared to affect the status of gifted education practices at these schools: the location of the school, the attitudes of the school administrators and teachers and the contribution of the surrounding community. Participants in the four schools stated that implementing gifted education at a school is not easy due to numerous challenges which are discussed in the next section.

7.5 Challenges of implementation

This section of the discussion chapter discusses the data related to the fifth research question, '*What are the challenges that are currently facing gifted education in cycle two Omani government schools?*' The findings revealed numerous challenges which are classified as: (1) challenges associated with students, (2) challenges associated with teachers and (3) challenges associated with schools.

7.5.1 Challenges associated with students

Participants reported many challenges are related to students and, in their opinion, efficient implementation of gifted education in a school depends highly on how students view giftedness.

7.5.1.1 Underrepresentation or unfair nomination

The findings showed that the first measure currently used at the schools investigated is teachers' nomination, which mainly relies on students' academic excellence. This identification practice, however, might lead to underrepresentation or unfair nomination and prevent many students from being nominated for gifted opportunities. When teachers were asked to talk about the characteristics of a gifted learner, they mostly listed the characteristics that are necessary for scholastic excellence. These findings seemed to be consistent with many studies conducted in other contexts

(Alamer, 2010; AlFahaid, 2002; Baudson & Preckel, 2013; Busse et al, 1986; Copenhaver & McIntyre, 1992; Endepohls-Ulpe & Ruf, 2006; Hernández-Torrano et al, 2013; Moon & Brighton, 2008). At several points in the interviews, teachers explicitly stated that whenever they are asked to nominate gifted children, they would refer to their marking register or remember names of students who perform outstandingly in their classrooms. These findings indicate that many students who may not excel in their school tests and, who do not actively participate in the classrooms are underrepresented in gifted education programmes. Therefore, as recommended before, there is a need to develop an identification procedure that deploys multiple tools to open doors for all kind of giftedness to be considered.

7.6.1.2 Students' personality

Students' reluctance to manifest their potential is among the detected challenges associated with gifted students. A possible explanation for this reluctance might be students' fears to be over-used by school personnel. Teacher participants noted that a gifted learner is usually viewed as a proficient service-giver that can offer his/her service to anyone at the school for free. For example, if a learner is gifted in painting, other teachers, especially those responsible for school societies as well as school administrators, will try to make use of his/her gift through getting him/her to create displays for specific purposes. While this may give the student a chance to expand his/her gift beyond the classroom, it may also put the student under extreme pressure. Sometimes a student may miss lessons because s/he is involved in drawing something for the administration. Hence, to avoid being used by the school personnel in this way, many students prefer to keep their potential hidden and unnoticed. Another possible reason for students' reluctance to share their gifts is a student's personality as well. There are students who are discovered to possess exceptional potential, but

due to their introverted personality, they cannot be supported. If a student him/herself does not take any steps towards developing his/her abilities, no one can force him/her to do that. These findings indicate that teachers consider task-commitment and self-motivation as vital components of giftedness development and manifestation.

In addition to students feeling of being overused and their reluctance to put themselves forward, many teachers also pointed to the high levels of stress students experience, especially in government schools. Because of the excessive demands in government schools, students feel stressed and do not have time to even think about their interests and giftedness. A teacher stated “... *I feel the study atmosphere here (government schools) is very exhausting, especially for young learners. Even when they go back home they have homework and reviews, so where they can get time for their giftedness? No time.* This highlights the importance of providing extra specialised programmes where students can find an opportunity to discover themselves and practise their specific potential at school. More importantly, students need to feel that the extra work they do at the school will help them to develop and excel using their gifts and that they will not be tested or assessed on it. In my view, if students are informed about this, they will be encouraged to use any free time during the school day to practise their skills and unleash their potential. Helping students to actualise their potential without feeling worried or afraid of grades and formal assessments can increase their self-motivation and make them feel responsible for nurturing their gifts.

Moreover, participants commented that students at government schools may feel that their gifts are not appreciated, which, in turn, makes them feel disappointed and demotivated to manifest their gifts. They noted that the modest attempts a school

makes in nurturing students' gifts, do not constitute any real and recognisable effort to take these gifts further beyond the school's boundaries. The most a school can do is to encourage a student to take part in the national or international competitions related to his/her gift. There are no further programmes or specialised centres where a student can practise and nurture his gift. Even if a student wins an international competition or Olympiad, this achievement most often ends with a reward ceremony. Winning top places in an international competition is evidence that a student has a high level of ability in the area of the competition. Thus, the MOE needs to rethink about the outcomes of participating in these competitions by considering such competitions as a way to reach the exceptional potential gifted students of rather than perceiving them as an end product.

In relation to students' personality, some teachers noted that having gifted students in their classroom can sometimes cause them embarrassment and discomfort because some gifted learners get bored very quickly and then start to disturb the whole class. Students who are gifted may feel the continual lack of challenge in regular classes and therefore cause major behavioural problems (EL Khoury & Al-Hroub, 2017). Although the teachers were aware that the best way to deal with this issue is by preparing extra challenging activities of higher order thinking skills, they noted that this is not an easy task for two reasons. The first is that teachers are extremely overloaded during the school day, so they do not have the time to think about gifted students' needs. This overload and lack of time for preparation force them to use the same materials for all students, a strategy that does not satisfy gifted students' thirst for knowledge. The second reason, as admitted by the teachers themselves, is that the qualifications and knowledge of regular classroom teachers might not be sufficient to support those

students whose abilities might outperform the teachers. Thus, some teachers indicated that their confidence is often threatened by unexpected intelligent questions thrown at them by gifted learners. Sarouhim (2010) stated that unless teachers are aware of the characteristics of gifted learners, they might feel threatened by a learner who seems to know more than they do about a particular subject-matter.

7.5.2 Challenges associated with teachers

Most challenges that are associated to teachers centred on either the demanding educational system in Oman or their' lack of knowledge on how to identify gifted learners and satisfy their needs.

7.5.2.1 Demanding educational system

Teachers in the four school cases complained constantly about the nature of the educational system in Oman. Many issues were raised, such as time constraint, heavy curriculum, assessments and large numbers of students in the classroom. As for the time constraint, this represents a challenge for both teachers and students. Teachers complained that the time they allocate whether to planning and preparation or searching for materials and resources and developing them is considered a heavy burden. Added to that, giving these materials to students during regular lessons may affect the time allocated to other planned activities and lessons as such materials may require more time. With regard to students, they also lack time to practise and develop their gifts either at school or at home. Moreover, the teachers of different subject areas in the present study were critical of the heavy content of the course books which they have to cover within a semester. Although teachers are encouraged to adapt the course books and available activities to meet different learners' needs in their classroom, the huge amount of prescribed materials which they have to cover does

not allow them to do so. In addition, teachers in this study also criticised the activities and the skills that are emphasised in these course books.

From the teachers' point of view, higher order thinking skills, such as problem-solving, creativity and critical skills, which are highly important in the development of giftedness, are ignored, whereas traditional styles such as memorisation and lecturing dominate the curriculum. Students and teachers rely on these styles not only to study and teach religious, Arabic and social studies, but also to understand mathematics and scientific laws. AL-Makhlid (2012) attributed the domination of memorisation and lecturing styles in all theoretical and practical subjects in Saudi public schools to the domination of religious teaching styles, which inherently rely on these forms of instruction. By considering the shared cultural and religious features between Oman and Saudi Arabia, the domination of traditional teaching and learning styles in the Omani educational system can also be attributed to the same reasons. Another possible explanation is the nature of the assessment system, which highly depends on memorising more than analysing and synthesising. It is worth noting that in general there is some flexibility in assessment in the Omani system in terms of implementing a variety of tools. The challenge, however, is the top-down model of the curriculum where tests are emphasised and learners are ranked accordingly (AL-Khatri, 2019). This reality of the assessment system in the Omani context has an impact on all the stakeholders within a school. Teachers and administrators complained that they have to focus on grades and tests most of the time. Students' reluctance and parents' objection to their children participating in gifted activities were also attributed to the nature of assessment. According to the participants, that the priority for most parents is that their children achieve high grades in their exams. This situation puts teachers

under immense pressure because they have to focus on the demands of summative assessments. Consequently, the demands of gifted learners are not likely to be of teachers' top priority. Further, higher order thinking activities, such as analysing, synthesising and creating which can nurture giftedness, are not emphasised because teachers are more concerned with training students in exam-type questions. These findings imply that for effective implementation of gifted education in the Omani context, a need for a balanced and flexible assessment that includes summative tests and formative tools is fundamental. A balanced assessment system should be developed in a way that measures a combination of context knowledge, basic skills, higher order thinking skills, deeper comprehension and applied knowledge (Al-Khatri, 2019). Additionally, it needs to include a diverse set of tools, such as designing tasks, scenarios and situations that disclose students' hidden potential. In a study by Al-Sadi (2015), which investigated Omani learners' autonomy and voice in a tertiary ELT Institution, the student participants criticised over-testing as the main tool of assessment and they suggested a variety of authentic assessment tools to enhance their critical thinking, problem-solving skills, and creativity. Students claimed that non-traditional methods of assessment are more appropriate and have a positive impact on their learning.

7.5.2.2 The readiness of teachers

Teacher participants in this study collectively expressed worries and fears of not being able to support gifted learners properly because they lack the content knowledge related to gifted education. They constantly criticised their pre-service education as it did not prepare them to do their teaching properly and they do not feel confident enough to deal with gifted learners. These findings corroborate the findings of two recent studies conducted in the Omani context by AL- Beloushi (2017) and AL-Khatri

(2019). These two studies claimed that teachers' pre-service preparation is an issue of concern in Oman, as their findings indicated that Omani teachers are not prepared for the reality of the job at schools. Although prospective teachers in Oman spend 4-5 years in teacher education programmes at their higher education institutions, many teachers lack some basic teaching skills and strategies. This reality "shocks" many teachers when they start teaching. Al-Beloushi (2017) explained the ineffectiveness of pre-service teacher education by claiming that in Oman these programmes focus mainly on the technical knowledge that student teachers need to know, which is firmly based on theory, and they ignore the promotion of other elements which can bridge the gap between theory and practice. As for gifted learners, in Omani government schools, many are taught in regular classrooms by teachers who are either untrained or unknowledgeable about their needs. Finley (2008) and ALamer (2014) asserted that the attempt to provide gifted learners with curricula that satisfy their gifts would not assist them to maximise their potential unless they are lucky enough to have trained and qualified teachers.

7.5.3 Challenges associated with schools

Many issues are revealed at the macro-level in the MOE and the BNGED which have inevitably influenced the operation of gifted education at the micro-level within a school. Two major challenges, that appeared to be shared by all the school cases, are selected to be discussed in further details below.

7.5.3.1 *Top-down system*

According to a report published in 2013 in the Oman Daily newspaper, the MOE claimed that some aspects of the educational system have been decentralised to the RGEDs in the eleven governorates. In addition, the report stated that the MOE had started to move towards more school autonomy by granting schools' principals more leading roles. Therefore, with this increased autonomy, school principals are supposed to have increased accountability and freedom with regard to school management. However, many recent studies of the Omani educational context (Al-Riyami, 2016; Al-Beloushi, 2017; AL-Khatri, 2019) revealed that the Omani educational system is rigidly centralised. In accordance with these studies, the findings of the current study confirm that the centralised system is one of the main issues facing the implementation of gifted education at the investigated schools. On one hand, many administrators noted that the centralised system restricts them from taking even simple decisions related to their schools. Due to the complicated procedures, many proposed gifted education initiatives are either delayed or cancelled. As an example, a number of administrators complained that the BNGED does not allow them to run certain activities at the schools before getting the green light from BNGED personnel and usually such activities are rejected for unconvincing reasons. Teacher participants complained that although they are constantly urged to differentiate their teaching to satisfy all their students' needs, the detailed, condensed and prescribed syllabus and requirements of assessment system stand as a barrier.

Therefore, this study supports other Omani researchers in calling for decentralisation. Al-Khatri (2019) asserted that for effective differentiation of instruction and more

integration of imaginative and creative teaching techniques, the decentralisation of decision-making with regard to prescribed textbooks, pedagogical approaches and assessment is vital in the Omani context. However, this does not mean that the whole process should be left to school administrators and teachers to do what they want. Rather, decentralisation will promote improvements in the quality of teaching and learning in general and support efficient implementation of gifted education in particular. A crucial factor in the process of decentralisation is negotiation where teachers and administrators are involved in decision-making about policies, teaching content and assessment. Through decentralisation, teachers and school administrators can have more freedom and autonomy, which are considered vital components of creativity and innovation. In this way, teachers can practise their roles as designers, analysts, critical thinkers, evaluators and researchers (Al-Riyami, 2016; Al-Khatri, 2019). Furthermore, schools will feel confident about planning and conducting activities and programmes that serve the needs of gifted learners.

7.5.3.2 Lack of clear planning and structure

The findings revealed that none of the school has official identification, special programmes, classrooms, curricula, teachers, or coordinators for gifted students. These findings support Al Mulla's and Fateel's (2017) claims that gifted education is widely neglected or goes unnoticed in the GCCC (of which Oman is part). Although the data revealed that there are some initiatives taking place at the investigated schools, most of these are largely individual attempts by the school personnel. It is obvious that both groups of participants in the present study are not satisfied with the status of gifted education in their schools. They pointed out that their roles are confined to mainly making lists of gifted learners and nominating students for competitions, which participants criticised for several reasons. First, according to them, such

competitions do not serve the needs of gifted learners. While it is true that they might represent a great chance for very few participants within a school to show their maximum potential in an area, they usually end in nothing more than a reward ceremony.

Another dimension of this issue, as noted by administrators at more than one school, is the way these competitions are run. Participating students join such competitions without any previous guidance or preparation in the subject matter of the competition. The F School's senior supervisor of activities criticised a photography competition her school was invited to participate in because students were not prepared or inducted before getting them to participate. While it is true that winning top places in such international competitions is evidence that the nominated student has a high level of ability in the domain of the competition, there is a need to rethink about how to maximise the benefits of this participation. The goals of participating in these competitions need to be reconsidered. These competitions are supposed to be considered as a starting point in helping the gifted student to maximise his/her potential rather than perceiving them as an end product. Another issue related to the existing activities and competitions for gifted students is that they are repeated annually and are not redesigned to offer innovations and there is no attempt to offer anything new.

Another persisting challenge facing school pertaining to gifted education is the lack of financial support from the MOE allocated for supporting gifted learners in schools. The economic conditions of schools and the surrounding communities is one of the main obstacles of the development of new educational programmes (Jones & Southern,

1992). Thus, each school case mentioned some attempts to seek financial support from external resources, such as private sectors and sometimes donations from well-known businessmen and wealthy families. Schools' attempts and success in getting external financial support may also explain why some schools appeared to be more productive than others.

7.6 Summary of the chapter

This chapter addressed the main thematic findings of the present study that were presented through the qualitative data analysis and supported by existing literature in the field of gifted education. An interpretive stance was adopted for this study to interpret the lived experiences of participants and construct a mutual understanding of knowledge through social interaction between the participants involved and myself as a researcher. This discussion chapter was directed by the study questions which aimed to explore teachers' metaphorical images of gifted learners through the various metaphors they generated. Then, it attempted to shed light on the main ITG that teacher hold and, it discussed the main sources of these theories. Next, remarks on the current gifted education practices and initiatives were made. Finally, the chapter concluded by discussing the challenges that are currently facing the implementation of gifted education at the investigated school cases.

The following chapter (the conclusion and recommendations) summarises the findings and draws implications for policy and practice; it also discusses the contributions of this research and the possibility of generalisability. The limitations of the study are set out and some recommendations for further research are presented.

Chapter Eight: Conclusion and Recommendations

Introduction

This chapter summarises the findings of the present study in relation to the five research questions. Then, it highlights the contribution of the study to the existing knowledge on the field of gifted education and the methodology used in this study. Following this, the chapter provides the critical implications of the study to the unified definition of giftedness, teachers, policy makers in the MOE and the teacher education. Next, the chapter points to some limitations of the study and suggests some recommendations for future research. Finally, the chapter concludes with my personal reflection on the Ph.D. journey.

8.1 Summary of the findings

The main aim of the present study was to explore gifted education in cycle two Omani government schools (Grades 5-9, age ranging from 11 to 15 years old). More specifically, the aims were to explore teachers' ITG and gifted learners and the existing practices pertaining to gifted education. It also explores the challenges that are facing gifted education at the four school cases. To do this, a multiple case study design was adopted through focusing the investigation on four government schools in BNGED, the governorate in which I work. The investigation started by analysing a collection of 21 metaphors that were generated as groups by teacher participants at the beginning of the data collection in order to obtain an initial understanding of how these teachers

perceive gifted learners. Then, 11 focus group interviews were conducted with the same teacher groups to get an in-depth understanding of their metaphors and their ITG and what constitutes a gifted learner. In addition, one focus group interview was also conducted with a team of administrators in each school in an attempt to build a clear picture of the current status of gifted education in these schools and the challenges facing it. The main emergent themes from the data analysis centred around the dominant characteristics of gifted learners, teachers' ITG, professional life experience as a key source of teachers' ITG, current gifted education practices and challenges facing the implementation of gifted education.

The findings pertaining to the first research question showed that participants overwhelmingly held positive images of a gifted learner and these images seem to be culturally influenced. Teachers depicted their views of a gifted learner mostly with images that carry positive cultural connotations. Seven characteristics of a gifted learner emerged from the analysis of the metaphors including: creative, socially intelligent, guiding and leading, intellectually and cognitively different, popular and inspirational to others, continuously developing and a rare individual. With respect to the second question, the findings overall revealed that teachers hold a multi-dimensional definition of giftedness which means that to them giftedness is more than high intellectual abilities and academic excellence. The teachers' ITG were discussed in light of their relationship to culture, family economic status, the notion of malleability, academic excellence, high intelligence, creativity and performance vs. potential. Although the findings indicated some tensions and contradictions among teachers' ITG, these are seen as a source of opportunity rather than a problem. This is because when various and conflicting conceptions are adopted by a particular education

system, this gives a rationale for providing an expanded variety of services (Schroth & Helfer, 2009). With regard to the third question, the study found out that teachers' professional life experiences, such as teaching mixed ability classrooms, close interactions with students, daily observations, teachers' discussions and feedback sharing, all act as key sources of teachers' implicit theories, beliefs, conceptions and thoughts on giftedness. Unexpectedly, pre-service education and INSET programmes were ranked as the least influential contributors to teachers' ITG. This finding has raised many questions about the quality and accuracy of teachers' ITG, which lends itself to certain recommendations/outcomes that I will discuss later.

Findings pertinent to the fourth question revealed two main points. First, the current identification process being followed by all school cases relies heavily on subjective nominations by various stakeholders, including teachers as the major nominators beside parents, peers, social workers and student self-nomination. Thus, no formal identification process is currently implemented at any of the four school cases, which very likely means that the same thing is happening in all cycle two government schools across Oman. Second, the findings also pointed out that there are some gifted education initiatives and attempts occurring at the investigated schools, but these vary from one school to another. This variation is attributed to a number of factors including: the school's location, the school's administration, teachers' attitudes and community support. These findings inspired the study to suggest some recommendations for the enhancement of gifted education in Omani schools.

Although the four school cases showed enthusiasm about giftedness and gifted education, the participants acknowledged that there are many challenges that hinder

efficient implementation of gifted education. These challenges involved challenges associated with students, teachers and the education system in Oman in general and the school system in particular. First, with regard to gifted students, participants pointed to several issues, such as unfair nomination, students' reluctance and difficult personalities. With regard to challenges associated with teachers, the participants complained about the high demands of the educational system and the lack of INSET programmes on gifted education, which makes them hesitant about knowing how to deal with this category of students. Finally, participants pointed to many challenges related to the school system, including the top-down system and lack of clear planning and structure.

The summary of the findings above indicates that gifted education in Oman is still at its infancy stage and, therefore, an immense effort still needs to be exerted. As this study is considered to be pioneering close investigation of the construct of giftedness among school teachers and the reality of gifted education at Omani school contexts, there is an urgent need for important recommendations to be made that can powerfully map out the route towards better gifted education in Oman. In the following section, I will discuss how this study contributes to the existing knowledge theoretically and methodologically.

8.2 Contribution to the existing knowledge

This study has theoretical and methodological contributions to the field of gifted education. The following two sub-sections will elaborate on these contributions respectively.

8.2.1 Theoretical contribution

Mazzoli Smith (2016) maintained that research on giftedness and gifted education often feels like a marginalised endeavour, a situation that suggests a need for a wider set of research methods that gives voice to a wider range of stakeholders on issues related to giftedness. This study was carried out on four cycle two government schools (Grades 5-9), which are typical of all cycle two government schools in Oman. Therefore, the study added to the international literature on gifted education as it explored the concept of giftedness in a new context where the concept of giftedness was previously rarely considered. While it is true that there are many well-informed explicit theories and models proposed to help understand the concept of giftedness, understanding teacher's ITG is vital because these are the people who have to carry out their responsibilities towards gifted learners harmoniously. In addition, it is teachers who have to ensure that there is integrity between guidelines and regulations on one hand and the implementation of programme practices on the other (Brown et al., 2005). Thus, the findings of the present study contributed to the literature on teachers' implicit theories, beliefs, and conceptions of giftedness, especially when we know that teachers' ITG have been studied relatively little because most research has addressed students' implicit theories (Dweck, 2000; Laine et al., 2016; Mazzoli Smith, 2016).

Additionally, it is widely agreed by gifted education researchers (such as Sternberg & Davidson, 1986; Philipson & McCann, 2007; Kaufman & Sternberg, 2008; Neihart & Toe, 2013), that the definitions of giftedness are grounded in culture. This means that the definitions, beliefs and views people hold pertaining to the concept of giftedness and its developmental nature vary from culture to another. A reviewing of previous

research showed that studies have been already conducted in most contexts (such as Australia, America, Germany, Hong Kong and Finland) to investigate the construct of giftedness and how it is influenced by the culture of these contexts. The present study was carried out in the context of Oman, where Islam is more than a religion; it is a way of life which inevitably formulates most people's values, beliefs and worldviews in general and their common cultural views related to giftedness in particular. Therefore, the findings related to the influence of cultural and Islamic views on Omani teachers' ITG add to the existing literature on theories and definitions of giftedness. Mazzoli Smith (2016) maintained that studying implicit theories would enable a more nuanced understanding of the place of values and beliefs in embedding practices. Such understanding is crucial for progress, since what is needed is the kind of research impact that not only changes policy and practice in this area, but discourses and cultures around giftedness too.

Further, reviewing the literature revealed that there is a scarcity in empirical studies on gifted education in the Arab world and the GCC in general (Al Mulla & Fateel, 2014; El Khoury & Al-Hroub, 2018), and in Oman in particular. A literature search on studies on Omani context revealed that very few studies have been conducted on the area of gifted education (AL-Dhafri, 2015). These studies have dealt with issues such as testing and rationalising identification scales (Kazim et al, 2014; Hemdan et al, 2017) or suggested a strategic plan to support gifted learners in schools (Al-Baloushi, 2016) or studied the influence of school extra-curricular activities on gifted learners (Al-Salmi, 2008). Apart from Al-Dhafri's (2015) study, which examined teachers' efficacy beliefs about their abilities to identify and teach gifted and talented students in their regular classes, no single study has yet examined Omani teachers' ITG. Therefore, to the best of my knowledge, the present study is the first in the Omani

context to examine the regular classroom teachers' ITG. Hence, these findings on Omani teachers' ITG will hopefully help the policy and decision-makers in the MOE to develop or refine any definition that exists of a unified educational definition of giftedness, which then can be used as a basis for developing a clear identification system for gifted learners.

Findings on gifted education practices that are currently taking place at government schools demonstrated that gifted education practices in the investigated school cases are affected by a number of factors that are distinctively related to the nature of the Omani society; these include the school's location, the school's administration, teachers' attitudes and the surrounding community support. Alongside the factors affecting the existing practices, the study also identified the challenges facing the implementation of gifted education. Many challenges were found, and they were divided into three categories: challenges associated with students, with teachers and finally with the school system, such as the top-down system and lack of planning and directions.

8.2.2 Methodological contribution

Metaphors have been extensively used in teacher education for reforming teaching practices, rethinking teacher roles and discovering different assumptions about knowledge which influence teachers' teaching and learning (Kasoutas & Malamitsa, 2009). Hamilton (2016) maintained that employing metaphor generation and analysis in teacher education coursework may positively help prospective teachers' abilities to frame and more deeply understand their own ideas about various educational issues, such as teaching and learning. Beside using metaphors as a training method, there has been an increasing number of studies that have utilised metaphors as a research

method to explore teachers' thinking concerning different educational issues (such as Buchanan, 2015; DeLeon-Carillo, 2007; Hamilton, 2016; Kasoutas & Malamitsa, 2009; Mahlios & Maxson, 1998; Sam, 1999; Shaw & Mahlios, 2008). My literature search on studies in the international context, however, revealed a paucity of gifted education studies which employed metaphors as a data collection method. Furthermore, to the best of my knowledge, this study is the first Omani study that deployed metaphors in examining an educational issue in the Omani educational context. I have not come across a single study that used metaphors as a data collection method. The existing educational studies on issues like teachers' awareness, beliefs, attitudes, potential and challenges highly depended on traditional research tools like questionnaires and interviews. Hence, this study has contributed to the literature on how to investigate teachers' thinking regarding some educational issues by employing visual methods in general and metaphorical analysis in particular.

In the present study metaphor analysis was also deployed as a means of data collection in conjunction with other methods. It was used prior to the focus group interviews in an attempt to use its obtained data as a source for formulating many questions in the teacher interviews' guide, especially the questions that were intentionally formulated to explore teachers' ITG. In this regard, it is worth mentioning that deploying metaphors in this way worked well in constructing an initial picture of Omani teachers' ITG. Besides that, the obtained data acted as a rich source for feeding the interviews' guides. Therefore, it is hoped that the present study will trigger some interest among gifted education researchers in the Omani context, the Gulf region, the Arab world and those in the wider giftedness community, to further pursue

using metaphor analysis with other common social science methods in exploring the field.

8.3 Implications of the study

This section presents the main implications of the present study. As shown in Figure 8.1, the study has proposed implications for a unified definition of giftedness, teachers, policy makers and teacher education programmes.

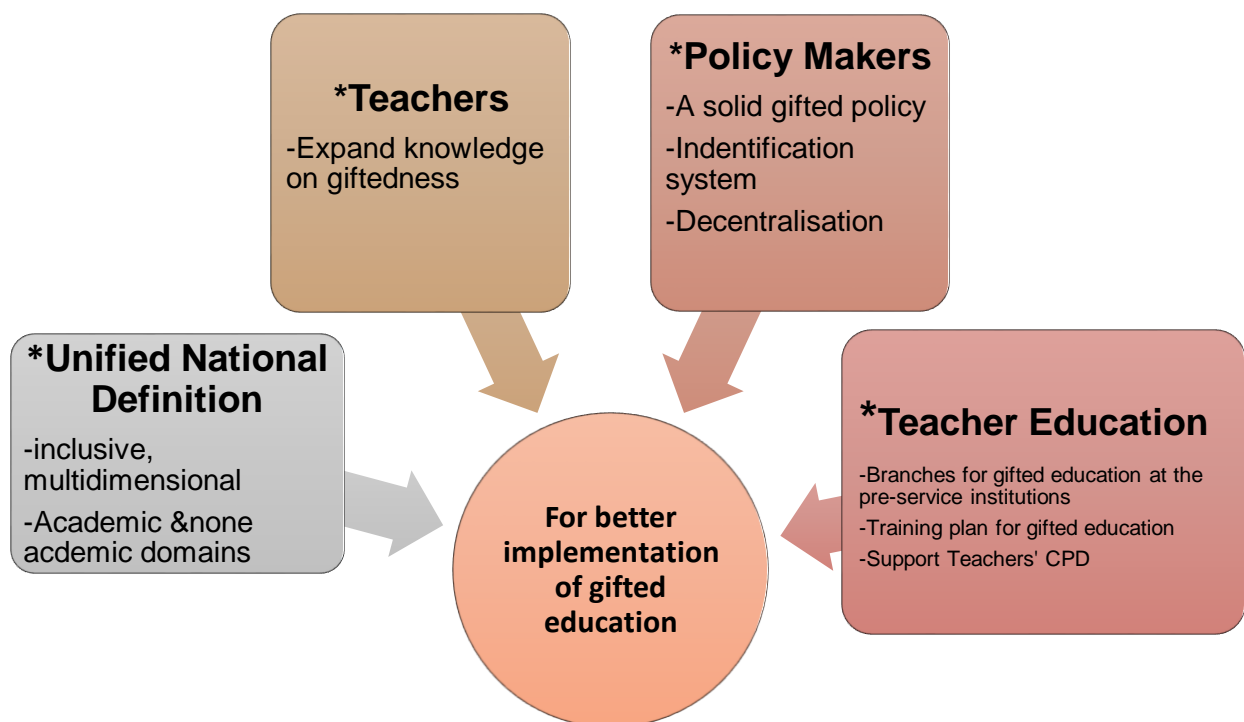


Figure 8.1 Implications of the findings

8.3.1 Implications for a unified definition

Research on gifted education asserts that successful implementation of gifted education in a context should start with establishing a clear and unified definition of giftedness (Sternberg & Davidson, 1986; Renzulli, 1986; Lee, 1999; Philipson & McCann, 2007; Schroth & Helfer, 2009; Siegle et al, 2010; Tirri & Kuusisto, 2013).

This is because the way in which giftedness is conceptualised in a context has consequences on identification procedures, programme offerings and the ultimate success of gifted education overall. To some extent, teachers' ITG revealed in the current study seemed to accord with my thoughts and ITG that I expressed in the introduction chapter Section 1.1. For example, I strongly believe that giftedness is an inclusive concept that is not solely confined to academic eminence. In this regard, the findings revealed that teachers' ITG do not accord with the current definition suggested by the MOE as well. The term 'Mujeed' is dominantly used in all MOE's official letters, memos, and circulars to refer to gifted learners. This word is used mainly to describe students who achieve highly in school academic subjects. However, teachers in the present study appeared to hold an inclusive definition of giftedness which entails more than academic excellence. For the majority of the interviewees, giftedness is shaped by a mixture of ingredients, such as innate potential in a specific area, intellectual abilities, social traits, creativity, the surrounding environment, Islamic principles, Arab values and Omani traditions. In this sense, giftedness does not solely mean high intelligence or academic excellence as the Arabic term 'Mujeed' conveys. Consequently, there is a need to redefine the concept of giftedness in a way that matches the global understanding on one hand, while also reflecting the local cultural values which have been indicated in the teachers' ITG on the other. As it is ultimately teachers who will have to ensure that there is integrity between guidelines and regulations on one hand and the implementation of programme practices on the other (Brown et al, 2005), their thoughts and ITG should be taken into consideration when redefining giftedness in the educational context in Oman. Thus, the findings suggest that the new unified definition should be expanded beyond academic excellence in school subjects to include extraordinary performances in any other specific domains,

such as the arts and sport. Moreover, other contributing factors which were constantly raised by teachers, for example high creativity, multiple intelligence notions, high task-commitment and social characteristics should be considered in the new definition as well.

8.3.2 Implications for teachers

Teachers need to be more flexible when thinking about giftedness. This means that they need to be aware that thinking of giftedness as a multidimensional construct is positive. The findings of the study highlighted the issue of teachers' contradictory and hesitant notions about giftedness, such as their ITG regarding the relationship between giftedness and general intelligence, performance vs. potential and the family's economic status. These contradictory and hesitant ITG may signal a lack of or insufficient knowledge pertaining to giftedness. An important implication of this is that teachers need to work harder to expand their giftedness knowledge so that they become more confident about their implicit theories and beliefs about giftedness, as they will be acting on experts' explicit theories and empirical research findings.

As a start, teachers can inform themselves about the construct of giftedness by reading widely in this area. Though it may not be the best, I personally found the two editions of 'Conceptions of giftedness' by Robert J. Sternberg and Janet E. Davidson (1986, 2005) as a good book to start with. These two editions offer a chance to look at the construct of giftedness from different perspectives as discussed by the key researchers of giftedness. They describe the major conceptions of what it means to be gifted and how these conceptions apply to identification, instruction and assessment of giftedness. Moreover, the teachers can also expand their own knowledge on giftedness by searching through publicly accessible publications by major authors and teacher educators including articles, presentations and research

papers. In addition, they might enroll themselves in online courses related to gifted education or subscribe to some websites, such as Research Gate or Academia, where they can receive notifications on articles and research papers related to the area of giftedness. They can also check some videos on YouTube, where some famous gifted people talk about their giftedness such as TED talks.

Moreover, the findings relating to sources of Omani teachers' ITG revealed that teachers value the discussions that are going on between teachers at some schools (such as B School) concerning gifted learners (see Section 5.3.1). In addition, sharing feedback on students among teachers was rated as another useful source of teachers' ITG and beliefs. These findings suggest that these kinds of fruitful talks and discussions among teachers should be encouraged and facilitated. Apart from informal discussions, teachers and senior teachers might arrange for more focused talks, forums and seminars/webinars where issues related to giftedness are raised, discussed, refined and clarified. Such events can even be arranged at the local level, regionally at the RGEDs or even at the MOE level, so that more teachers and interested educators across the 11 governorates of Oman have a chance to participate.

8.3.3 Implications for policy-makers

Apparently, there is a deficiency in Oman education policy regarding gifted education as apparent from exploring the four schools' practices. The findings revealed a random implementation of gifted education policy that does not consider basic elements. Multiple issues are associated with the current policy, such as lacking a unified and clear definition of giftedness, insufficient identification methods, scarce resources and inadequate evaluation processes for putting policy into practice, the nature of current educational system, the physical setting of the schools, the characteristics and

interests of the students, the teaching styles, the lack of teachers' personal and professional qualifications and parental concerns. These findings provide insights for policy-makers to enhance gifted education at schools. The principal implication for policy-makers in the MOE is the necessity to devise a solid gifted policy document and guidelines for implementing it. This document should consider basic components of gifted education including goals, definitions, identification methods, programme models and options, professional development, community and parent involvement, resources, as well as curriculum and assessment processes.

Another important implication for the MOE's policy-makers is the pressing need to develop an identification system for identifying gifted students as soon as possible. In this regard, teachers' ITG which have been identified through this study should be considered as an invaluable source for developing the identification criteria. The study suggests that the identification process should be derived from the teachers' ITG and administrators' suggestions for better gifted education. The present study suggests that teachers' and parents' nomination are an integral part of the process in identifying gifted children, but that student nomination improves when nominators are provided with specific selection criteria in a form of questionnaires, checklist and scales (Siegle et al, 2010; El Khoury & Al-Hroub, 2017). This is because without a clear set of criteria, those who are asked to nominate students are very likely to rely on previous training and/or stereotypes they have developed (Siegle et al, 2010). Teachers' and parents' nominations are just one method of many used to identify gifted learners.

The findings also emphasised the importance of considering other domains of giftedness when developing an identification system. Unlike the current piloted identification system, which mainly looks for students with high academic abilities (see

Section 2.9 and Section 2.10 in Chapter 2), the identification system which this study calls for is the one that serves both kinds of giftedness: academic and non-academic. Therefore, even if a student is not doing well academically, his/her other specific high potential can still be recognised and supported. When a student is initially nominated as having academic giftedness, school achievement tests in the specific subject of giftedness are considered as preliminary evidence. Then, other further tests will be carried out to confirm his exceptionality in the subject of giftedness. A similar procedure can be also applied for non-academic giftedness. After the initial nomination by teachers or parents, evidence of a student's performance should be analysed and judged by specialists. If the student's work is judged as being exceptional, then other tools can be applied to confirm his/her giftedness.

The findings revealed that teachers at the government schools struggle with the requirements of the education system, for example the teaching load, assessment system, heavy curriculum and others. Regardless of the importance of these requirements, gifted students deserve to be at the centre of our attention. Policy-makers, school administrators and teachers themselves need to be aware that gifted students have unique characteristics and special needs and that part of their responsibilities is to support these needs. The findings of this study complemented other earlier studies conducted in the context of Omani education (Al-Riyami, 2016; Al-Beloushi, 2017; Al-Khatri, 2019; AL-Bahri, 2019) regarding the issue of centralisation. The study suggests that a principal way to enhance the status of gifted education at our schools is to move towards more decentralisation. That is to say, with regard to teachers, for effective instruction differentiation and better integration of imaginative and creative teaching techniques, the decentralisation of decision-making concerning prescribed textbooks, pedagogical approaches and assessment is vital in

the Omani context. This, however, does not mean that the whole process should be left to teachers to do what they want. It is the decentralisation that promotes improvements in the quality of teaching and learning in general and supports efficient implementation of gifted education in particular. Moreover, both teachers and school administrators ought to be involved in decision-making about gifted education policies, definitions, identification system, programme offerings and assessment. Also, school administrators should be allowed more freedom and autonomy that will enable them to foster creativity and innovation within a school, creating opportunities for students' gifts to be manifest and be nurtured. With more decentralisation to schools, teachers can carry out their roles as facilitators, designers, analysts, critical thinkers, evaluators, and researchers (Al-Riyami, 2016; Al-Khatiri, 2019), and school administrators will feel more confident to welcome proposals for activities and programmes suggested to serve the needs of gifted learners.

In addition, the findings also showed that the lack of a specialised financial budget for gifted programmes has negatively affected the status of gifted education at schools. School' administrators stated that organising and carrying out gifted programmes is financially demanding and because there is no special budget allocated for such programmes, gifted practices are very limited at schools. These findings suggest that a special fund should be allocated to support gifted education at each school.

8.3.4 Implications for teacher education programmes

These findings showed that teachers' ITG have been mainly constructed through their professional life experiences. Other sources like media, personal readings, personal learning and life experience have also contributed to teachers' IGT, whereas the INSET programmes and pre-service teacher education were rated as having a minimal role in constructing teachers' ITG. These findings, therefore, raised questions

and concerns about the quality and the accuracy of Omani teachers' ITG, as these theories, whether positive or negative, are thought to influence teachers' attitudes and practices towards gifted learners. The present study, therefore, suggests that specialised pre-service teacher education and INSET programmes are extremely critical to enhance teachers' ITG and to reduce any existing misconceptions and myths.

As for pre-service preparation, the MOE and the MOHE need to work jointly towards establishing special coursework for gifted education where all pre-service teachers receive input designed specifically for educating gifted students during their pre-service teacher education programme. The start might be with the SQU and Rustaq College of Education, as these are the two institutions that officially award degrees in education in Oman. Student teachers at the pre-service teacher education programme need to be informed that giftedness is not a unidimensional construct but rather a multidimensional concept that should be studied in relation to many other elements, such as creativity, intelligence, social and personal traits. In addition, family economic status, cultural and religious values, specificity of giftedness domains needs to be considered. In addition, student teachers need to be involved in activities where they learn how to appropriately challenge gifted students, engage them in greater depths of inquiry, and plan opportunities for them to create and develop advanced pieces of work grounded in real-world issues.

No matter how good teacher pre-service preparation is, it cannot prepare teachers for all the challenges they will face throughout their careers (Al-Beloushi, 2017). Hence, the Ministerial annual training plan has to provide space, time and funds for regional

INSET offerings on gifted education. Teachers in schools can suggest topics and issues for training opportunities related to gifted education. In addition, schools need to have their own INSET plans and funds, so based on teachers' needs, workshops and seminars can be organised at schools which make use of school teachers' ideas and experiences, as well as inviting scholars from universities. The content, strategies, and objectives of these programmes need to be reviewed constantly to ensure that they add valuable knowledge and information to teachers in a way that allows them to deal with gifted students professionally. Besides INSET, the education system needs to be adjusted in a way that provides teachers with more opportunities for in-service CPD in order to maintain a high standard of teaching and to retain a high-quality teacher workforce.

8.4 Limitations and future research

A limitation of this study was the sample size as it investigated only four cycle two government schools (Grades5-9) in one governorate, Batinah North Governorate. Therefore, a larger scale study where the three school cycles: cycle one (Grades1-4), cycle two (Grades5-10) and post-basic (Grades11-12), are involved needs to be conducted. Such a large-scale study can help in building a clearer and more in-depth understanding about how giftedness is perceived by Omani teachers and what practices are available at different school cycles. In addition, a comparative study which seeks to identify the differences between the three school cycles regarding the way giftedness is perceived is worth conducting. Possible future research might also include a comparison among school cycles regarding gifted education practices between males and female schools.

Another limitation of the study is that it only explored female teachers' ITG. Therefore, it is worth conducting a larger study with the same goal but with a sample of female and male teachers to see how giftedness is viewed by each gender. In this vein, a limitation to note was dependency, where the accuracy of the findings depended on the accuracy of the participants' declared responses. This study mainly relied on qualitative methods, particularly metaphors and focus group interviews, to collect the data related to teachers' ITG. Thus, a quantitative study to study male and female teachers' theories of giftedness might reveal more significant and reliable findings. In doing this, a larger number of participants will be involved and instead of eliciting responses from them, they could be presented with statements where they need to agree or disagree. Moreover, based on teachers' expressed theories, this study has suggested that Islamic principles, tradition and culture play an important role in the construction of teachers' ITG, which inevitably influence their own practices with regard to identification and teaching. Thus, further research is needed to explore how these three aspects can inform teacher identification of students within their classrooms. Further, this study revealed that gender strongly influences teachers' views of giftedness. Hence, more research needs to be undertaken to investigate the relationship between giftedness and gender. A possible research in this regard can be by approaching male and female students and exploring their areas of giftedness to see how gender influences domains of giftedness.

Some giftedness models in this study pointed to a distinction between the terms gift and talent, namely the DMGT by Gagné and the Pyramidal Model by Piirto. While Gagné's DMGT model perceived giftedness as constituents of talents, Piirto's model presented giftedness as a construct that is made up of many talents. It is beyond the scope of this study to examine the difference between the two terms from teachers'

perspectives. Hence, a further study may be conducted to examine teachers' beliefs concerning gift and talent and the findings can be compared and analysed in reference to Gagné's DMGT model and the Pyramidal model as well.

Methodologically, to the best of my knowledge, this study is the first to use metaphorical analysis with teachers in educational research in the Omani context. Most frequently, examination of teachers' implicit theories, beliefs, perceptions and thoughts on an educational issue is done through traditional research methods, such as interviews and questionnaires. The use of metaphorical analysis in the current study worked really well in approaching teachers' inner thinking and getting them to unveil their hidden thoughts about the topic of the study. Thus, the study suggests doing further research by utilising this method to explore Omani educators' and teachers' views and beliefs of different educational issues. This study utilised group metaphors, but it is also worth trying out how individual metaphors can add to the research field in the Omani context.

8.5 Personal reflection on the PHD journey

The experience of doing a PHD has always been as a terrifying thought for me. I used to feel that only people with high intellectual and special abilities can do it. Despite the fears, once the MOHE opened the door for the PHD scholarship applications, I did not hesitate to apply because getting a doctoral degree was one of my biggest life dreams. I did not get it the first time, but I was lucky to get the scholarship the second time. I should mention that my Bachelor's and Master's degrees are in TESOL and I currently work as an English teacher trainer in the MOE, where my main job is to prepare and deliver INSET programmes for English teachers. However, the scholarship that I could apply for at the time of application was Special Educational Needs Curriculum. Being

very determined to do a doctorate and believing that a chance may only come once in life, I applied for the Special Educational Needs (SENs) Curriculum scholarship and I succeeded in getting it. However, then, I encountered a challenge concerning which area of SENs to work on as a topic for my PHD thesis, especially that I lacked the knowledge and experience about the reality of SENs in my professional context.

Luckily, a year prior to my PHD study, I had been involved in a long online course on SENs which was funded by the HSBC bank and administered by the MOE and in this course, we studied different categories of SENs students. A new piece of information I learnt in this course was that gifted learners are considered as a category of SENs, something that surprised me. Thus, I felt that this field of education is neglected and spending four years of focused study on this area will be a great addition to educational research in my context. From here I decided to start my learning and researching journey on giftedness and gifted learners. Thinking about how this lengthy experience of doing my PHD has influenced me, I can say that it has massively influenced me professionally and personally.

Professionally, doing my doctorate on gifted education which is relatively new to my previous educational background could be considered a big challenge, but also an extension of my professional knowledge. I started my research with very limited knowledge which I had gained from my pre-service teacher education programme and the online course that I joined a year before starting the PHD study. Thus, I consider myself very lucky to get this valuable chance as it has widened my knowledge in an educational area that is deemed a new field of interest in Oman. My research journey on gifted education exposed me to many theories and models of key scholars of giftedness. Reading through these models and trying to analyse, compare and

contrast and sometimes criticise has stretched my understanding of giftedness and made me more flexible when thinking about its meaning. Thus, shifting from being an educator with very limited knowledge about this area of investigation to a specialised educator who possesses quite wide knowledge makes me feel a big responsibility. I feel that I am responsible for fostering gifted education field in my context and so am accountable for spreading over the knowledge I have gained to the educational community to which I belong.

With regard to my current job, this research journey gave me a great opportunity to think about my experience as a teacher trainer and how I should deal with my trainees. As this study explored teachers' implicit theories of an important educational topic, during my data collection phase I was engaged in very interesting discussions with teachers. Such discussions allowed me to see how attentive listening to teachers and giving them a voice can enrich my training sessions with invaluable insights and ideas. Added to that, as an English teacher trainer I have always dealt with English teachers, but this journey allowed me to deal with new subject teachers (maths, science and IT) and see how others think and act.

In addition, I have to admit that before being immersed in this long and focused research experience, my research skills were very limited. Although I do have two degrees, these two prior learning experiences were content-based rather than research skills based. If you are a PHD social science student at the University of Exeter, to start with your PHD thesis, you have to do one year of an MSC programme where you have to pass a number of research modules. Although it was not easy at all, the MSC programme massively enlightened me about many research elements which I had had no idea about before taking off on my PHD journey. Research

concepts such as paradigms, epistemology, ontology, the difference between methodology and methods and others were among the research aspects that I heard about for the first time during the MSC year.

At a personal level, the experience of being a researcher has not only developed my critical thinking when dealing with content related to my research, but critical thinking has become a lens through which I judge what I see, read or listen to in life. When I think about myself now, I think I am no longer that person who reads, listens and accepts or refutes without thinking and rethinking. I have become a better listener and observer and much less judgmental towards people and events. I have become more flexible with what people think and believe and I enjoy being engaged in discussions. I have become aware that such discussions do not necessarily have to end with a winner and a loser, but they are a chance for enriching the topic under discussion, clarifying and conveying different views. Interestingly, I have found myself following the same approach when talking with my teenage daughter and urging her to speak about any issue openly without fear or shyness. The impact of following this was reflected on our strengthened relationship as she knows now that I am not that person who might say 'No' to her thoughts and ideas, but rather a person who is willing to listen and exchange viewpoints on what she says.

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Appendices

Appendix 2.1: Current Practices of Gifted Education in Oman

Organizer	Program/activities	Details
MOE	Cognitive Knowledge Development programs in Math, Science and Geography	<p>Rewarding students who achieved highly in the oral and written tests in the three subjects.</p> <p>-Rewarding students with the best innovative projects and research.</p>
MOE and Oman Oil Company	Takatuf Scholars Programme	<p>-The program is fully funded by Oman Oil Company and was launched in collaboration with the Job Counseling Centre at the Ministry of Education.</p> <p>It is an integrated enrichment program for the outstanding Omani senior secondary school students. The program aims, through its different phases, to prepare its participants for higher education through the completion of a four year bachelor's degree</p>
Partnership between MOE, Sultan Qaboos University and Research council	Summer Club	<p>This club targets about 1000 students.</p> <p>-Students are engaged in a set of activities including seminars, lectures, workshops on innovations, in addition to entertainment activities</p>
Research Council	Gifted learners' Forum	<p>-It targets grade 7-9 students in cycle two basic schools.</p> <p>-About 15-20 students of those who have won the Cognitive Knowledge Development competitions are also given an opportunity to participate in this forum, in addition to some volunteers from SQU.</p> <p>-In this forum, participants receive a special course on robots and other courses on team-</p>

		building skills. Moreover, participants receive some training on basic skills needed for scientific research and industrial innovations.
MOE	Scientific Exploration Centers	<ul style="list-style-type: none"> -These centers offer knowledge in an interesting way by using technical tools. -Giving special care to gifted learners and support giftedness especially in scientific domain by creating an enjoyable learning environment that encourage learners to renew their knowledge and related concepts.
Higher Education institutions	Culture, science and drama weeks	<ul style="list-style-type: none"> -This is an annual gathering that allow an opportunity for Omani gifted students from different colleges and universities in Oman to meet, share experiences and show others their giftedness as well. -Organizing lectures, seminars and gatherings. -It is based on the belief that such gatherings can nurture and foster students' giftedness. -One the sidelines of the week activities, a number of specialized workshops are conducted on various domains. -Well-known people, thinkers, educators are invited to inspire students with their ideas. -In addition to the local cultural weeks, some Omani students are also fully funded to participate in international students cultural weeks outside Oman.
Research Council	Supporting innovation programs	-Scientific innovation incubators have been established to provide an educational and interactive environment that help in disseminating innovations and leadership

		<p>skills as well as promoting students' ideas and projects.</p> <p>-Programs to support individual and societal innovations.</p>
Sultan Qaboos University	Innovation affairs department	<p>This department is responsible for promoting the culture of innovation among students by raising their awareness of some issues/topics related to innovations and entrepreneurship.</p> <p>-It also helps students to relate their innovative ideas to the industrial applications which may lead them to establish their own business in future</p>
	Innovations and entrepreneurship society	
	Scientific Innovations Festival	<p>In this festival, the six groups of the college of science meet (i.e. Math and Statistics, Physics, Chemistry, Biology, Computer Science, Geology).</p> <p>In this festival, students present their innovations which are ready to be used.</p> <p>-The festival also include a campaign that is known as National Campaign of Digital Recycling.</p>
Other governmental and societal institutions	Competitions, festivals for theatre, music and art	These are a variety of activities; some of which are annual. During these events gifted students/individuals are rewarded based on their achievements.
Ministry of Commerce and Industry	Supporting industrial innovations	Annual exhibitions for the best innovations

Appendix 3.1: Aims of the Munich Longitudinal Studies of Giftedness (MLSG)

Phases One (1985-1988)

This phase was dedicated to questions of identification and the validity of the employed model and it aimed (Perleth & Heller, 1994, p. 79):

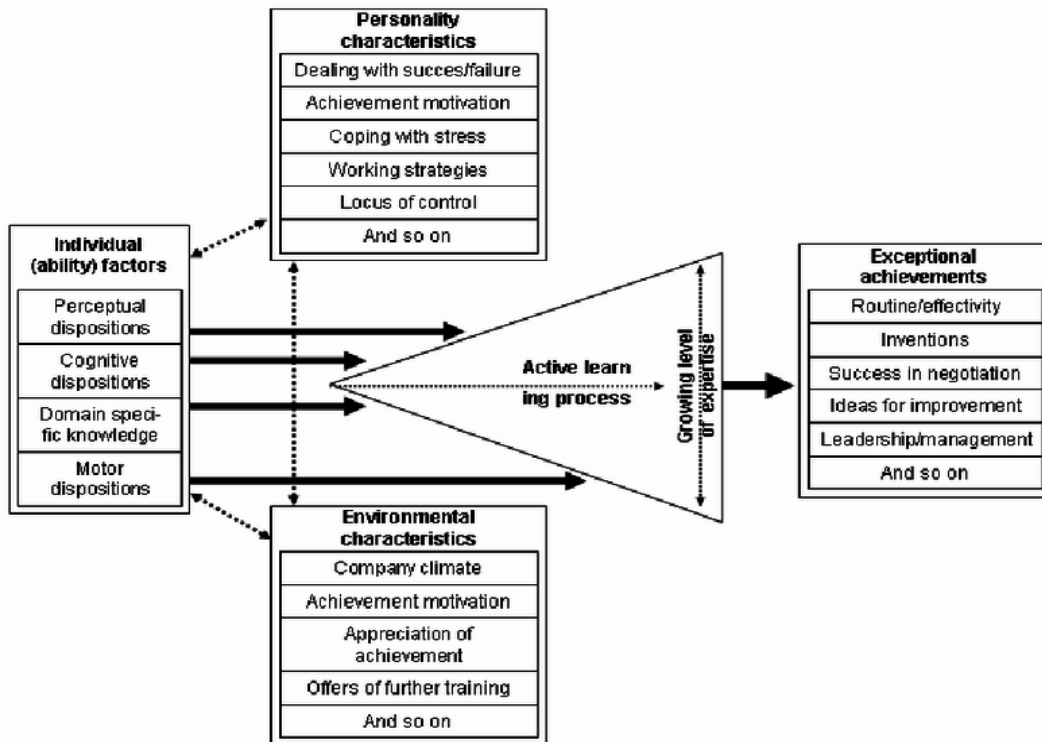
- 1-To develop reliable and valid assessment tools to be used for identification of gifted students (grade 1 to 12+)
- 2-To test aspects of giftedness model underlying the study, particularly the independence of the domain of giftedness under investigation.
- 3-Analysis of the typological structure of the sample especially identifying possible types of gifted students' different age group.

Phase Two (1989-1997)

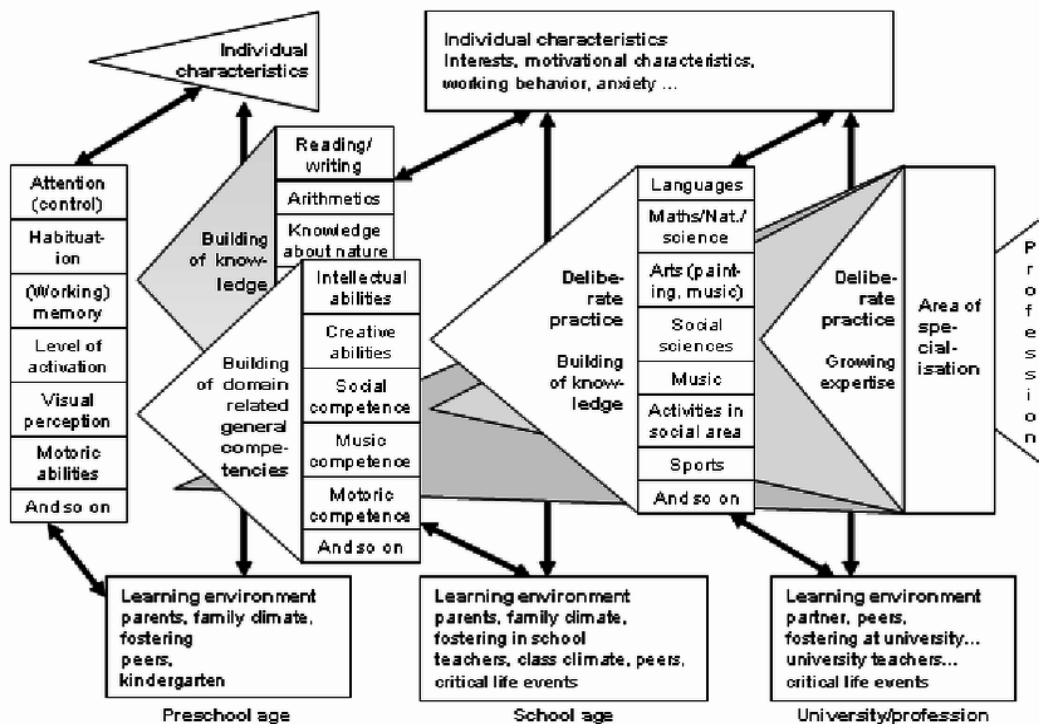
Then, the second phase of the study aimed at:

- 1-Evaluating the predicted validity of the assessment instruments used during the first phase to identify learners in 1-12+ grades.
- 2-Evaluating the validity of the typological concepts of giftedness and the relationships between different types of giftedness and performances.
- 3-Measuring the influence of personality and environmental variables on the performance of gifted learners over time
- 4-Describing and analysing the developmental process of gifted learners in relation to changes in their cognitive and non-cognitive characteristics.
- 5-Analysing the interplay between giftedness, achievement, personality and environment.

Appendix 3.2: Developed Versions of the MMG



The Munich Process Model (MPM)



Dynamic Ability-Achievement Model (MDAAM) according to Heller (2013)

	<p>They can use a photo, draw, sketch or diagram it. They are free to present their metaphor the way they like.</p> <p>-Then, participants should describe their metaphor by writing a short description by completing the statement:</p> <p>A gifted learner is because....</p>	<p>Papers, colors, pencils</p>	
<p>Collect and thank</p>	<p>Collect the metaphors and thank participants for taking part in this task. Encourage them to join the group interviews I would like to conduct with them in few days.</p>		

Appendix 4.2: Metaphorical Images for Piloting



A teacher is like a gardener



A gifted learner is like a computer

Appendix 4.3: The Metaphor Activity Form (Piloting)

نشاط الصورة التشبيهية

الجزء الأول: ستعمل في مجموعتك وتفكرون في صورة تشبيهية للطالب الموهوب. يمكنكم تمثيل هذه الصورة التشبيهية بأي شكل ترغبون سواء رسم توضيحي أو مخطط أو خريطة ذهنية أو حتى صورة.

الجزء الثاني: أكتب وصفا مفصلا للصورة التشبيهية التي اتفقتم عليها من خلال إكمال العبارة التالية:

الطالب الموهوب هو وذلك للأسباب التالية:

.....

.....

.....

.....

.....

.....

The metaphor activity form

Part One: Work with your group members and agree on a metaphorical image for 'a gifted learner'. Present your metaphor in any form you like by drawing, sketching, spiders-gram or even you can use a photo.

Part Two: Describe your above metaphor by completing the following statement, write as much as you like:

A gifted learner is

.....because.....
.....
.....
.....
.....
.....
.....

Appendix 4.4: The English and Arabic Metaphor Activity Form (Final Version)

نشاط الصورة التشبيهية

الجزء الأول: ستعمل في مجموعتك وتفكرون في صورة تشبيهية للطالب الموهوب. يمكنكم تمثيل هذه الصورة التشبيهية بأي شكل ترغبون سواء رسم توضيحي أو مخطط أو خريطة ذهنية أو حتى صورة.

الجزء الثاني: أكتب وصفا مفصلا للصورة التشبيهية التي اتفقتم عليها من خلال إكمال العبارة التالية:

الطالب الموهوب هو مثل/ أو ك..... وذلك للأسباب التالية:

.....

.....

.....

.....

.....

.....

Metaphor Activity Form

Part One: Work with your group members and agree on a metaphorical image for 'a gifted learner'. Present your metaphor in any form you like by drawing, sketching, spiders-gram or even you can use a photo.

Part Two: Describe your above metaphor by completing the following statement, write as much as you like:

A gifted learner is like/asfor the following reasons:

.....
.....
.....
.....
.....
.....

Appendix 4.5A: Teachers' Interview Guide

Teachers' implicit theories of giftedness, existing gifted education practices and challenges at Cycle two Omani schools

School's code:

Subject taught:

Date:

The Interview

I am currently conducting a study on the field of gifted education in the Sultanate of Oman through investigating Omani teachers' implicit theories and beliefs of giftedness, the exiting practices pertaining to gifted education and the challenges facing gifted education at four cycle two schools in Batinah North Governorate. First, teachers will be asked to give some background information about themselves. Then, the interview will focus on discussing the metaphors they generated in the first phase of data collection as well as discussing other questions related to the conception of giftedness. In addition, teachers will be asked to talk about their own practice in relation to the teaching gifted learners. Finally, we will discuss the advantages and challenges you're facing. The interview will take approximately 4 and their contribution is appreciated.

Ground rules:

- There are no right or wrong answers. All views are important, so participants should feel free to express their views even if you think they are negative.
- Please try and give the chance to others to express their views.
- I reassure you again that none of the participants' names will be written in the research thesis.
- I am recording this session, so participants should speak in a clear voice and be loud to avoid missing any data.
- All mobile phones must be off or kept on silent please. If a participant feel that she needs to answer an urgent call, she can leave the room quietly and come again to the session.
- Please feel free to help yourself with the refreshments throughout the session.

Let's get started now, first I would like you to introduce yourself by saying your name, the institution you graduated from and how long you have been working as a teacher

Research Questions	Area investigated	Interview question (teachers)	Purpose of the question
Introductory question	Lead in	Do you remember the metaphorical image you generated to represent your thoughts of a gifted learner? What was it?	Introductory question
1-What metaphors do cycle two teachers identify, capture, and share to represent their implicit theories pertaining to giftedness and gifted learners?	In-depth discussion of metaphors	-Could you describe your group metaphor in as much detail as possible? In what sense this image resembles a gifted learner? -Can you think of a student in your classroom whom you think is (the metaphorical image).....? What are the characteristics that have made you relate this student but not others to this metaphor? -What do you think of the other groups' metaphor? -Do you have further metaphors for a gifted learner?	Follow-up +experience questions/ deeper examination of teachers' metaphors
	Dimensions of giftedness	Do you think giftedness is:	

		<ul style="list-style-type: none"> -General or specific, could you elaborate on that? -Achievement or potential, what is the difference? -Intelligence based <p>What about the personality and the social traits of the gifted, support with examples</p> <ul style="list-style-type: none"> -Creativity, what do you mean by this? 	
Transition		<p>We have talked for a while about your perceived theories of gifted learners and giftedness, can I ask you now to think for a moment about how you might have constructed these beliefs and theories?</p>	
2-How have cycle two Omani teachers' constructed these implicit theories?	Factors behind teachers' personal beliefs	<ul style="list-style-type: none"> -What has made you think of a gifted learner in that way? <p>How have you learnt about giftedness and gifted learners?</p> <p>Possible responses to be given and discussed further:</p> <ul style="list-style-type: none"> -pre-service preparation -in-service training -media -society/culture -Teaching experience -Having a gifted child in my family or neighbourhood 	
Transition/structuring		<p>Let's look at other areas which we haven't yet covered, think of the same student whom you believe is gifted, in your</p>	Experience question

		opinion, what are the circumstances/factors that have made these students gifted and different from her peers?	
3-What beliefs do Omani teachers hold about teaching/learning of gifted learners (fixed or malleable quality)?	Developmental nature of giftedness	<p>Possible responses to the above question are:</p> <ul style="list-style-type: none"> -family education, socio-economy -gender -Heredity -students' personality -How do you think (a factor from the above) has contributed to the giftedness of that student? <p>So, do you mean that giftedness is something that can't be changed very much (Laine et al, 2016) adapted from Dweck, 2000</p> <p>Or</p> <p>Gifted individuals can flourish and reach the level of eminence with training and/or environmental stimulation.</p>	<p>Direct questions: to relate their answers to specific topic or dimension</p> <p>Interpreting questions: aims for clarification</p>
Transition		We have talked for a while about your theories and personal beliefs of gifted learners and giftedness and the developmental nature of giftedness, can we move to talk about how you deal with	Shifting to a new topic

		these students in your classroom?	
4-How do teachers attempt to cater for the needs of students who display gifted behaviors whether in their classrooms and outside the classroom?	Teachers' practices	Do you prepare anything special for these students whom you think are gifted? If yes, how? If not, why not? -How are gifted learners treated in your school?	
Transition		Being a regular classroom teacher with mixed ability students, what are the challenges and the rewards you experience of having students who manifest giftedness behaviour?	Shifting to a new topic
7-What are the challenges facing teachers and schools with regard to gifted education?	Teachers' challenges Possible solutions	You have talked about many challenges you face as a regular classroom teacher when dealing with gifted learners, Now, what can you say about differentiated instruction as it is strongly encouraged by the MOE? What do you suggest for overcoming these challenges and for providing better services for gifted learners at your school?	
Ending question	Interview closure	All things questions: Suppose you have one minute to talk to the minister of education in Oman, 'what would you ask	

		<p>her to do in relation to gifted education?</p> <p>Summary question: How well that summarizes what was said here? Is that adequate to what has been said?</p> <p>Final question: Have we missed anything? Do you have anything you want to add?</p>	<p>Checking and interpreting participants' responses</p>
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Appendix 4.5B: Administrators' Interview Guide

Teachers' implicit theories of giftedness, existing gifted education practices and challenges at Cycle two Omani schools

School's code:

Date:

The Interview

I am currently conducting a study on the field of gifted education in the Sultanate of Oman through investigating Omani teachers' implicit theories and beliefs of giftedness, the exiting practices pertaining to gifted education and the challenges facing gifted education at four cycle two schools in Batinah North Governorate. First, I will ask the participants some background information about themselves. Then, the interview will focus on the internal or external existing gifted practices the school is performing or taking part in. In addition, participants will be asked to talk about the support their school gets from the MOE and other parties. Finally, we will discuss the challenges that the school is facing with regard to gifted education and what are the possible suggestions are to enhance the level of services offered to gifted learners. The interview will take approximately 45minutes. The administrators' contribution and patience are appreciated.

Ground rules:

- There are no right or wrong answers. All views are important. Please feel free to express your views even if you think they are negative.
- Please try and give the chance to others to express their views.
- I assure you again that none of your names will be written in the research thesis.

□ I am recording this session, so please speak in a clear voice and be loud enough to be recorded. I am recording because I want to record everything you say and not miss any part of it.

□ All mobile phones must be off or kept on silent please. If you feel that you need to answer an urgent call that you can't miss please leave the room quietly to get your call and come again to the session.

□ Please feel free to help yourself with the refreshments throughout the session.

Let's get started now, first I would like you to introduce yourself by saying your name and telling us briefly about your position at the school.

Research Question	Area investigated	Interview Question (Administrators)	Purpose of questions
Grand tour question (lichtman, 2013)	Lead in	What is the first thing that come to your mind when you hear the phrase 'gifted education'?	General question: Encourage pts to talk at length
Transitional question	Linking	Having talked about the concept of gifted education in general, can we now move to talk about gifted education at your school?	
5-What are the existing gifted education practices at cycle two Omani Schools?	Existing gifted education at each school	-Could you describe in one word the status of gifted education at your school? -Can you name any activity or initiative that your school organizes or is involved in which you think is serving and meet gifted learners' needs?	
Transition	Introduce a new topic	We have talked for a while about the current practices at your school, let's talk about the support you get	

		pertaining to gifted education from different parties.	
6-To what extent gifted learners and gifted education are supported by the Ministry of education and the community?	Support from other parties	-To what extent do you think the MOE supports gifted education? -What about the private sector, is there any kind of support to this category of learners? Can you give examples? Any support from the community?	Opinion
Transition			
7-What are the challenges facing teachers and schools with regard to gifted education?	Challenges/solutions	Based on your experience of working as an administrator at this school, what are the challenges you encounter to support gifted education? How can these challenges be overcome?	Experience question: give concrete and relevant information
Closing	Concluding the interview	Can you think of anything else you would like to say for better gifted education practices at our schools?	

Appendix 4.6: The University of Exeter Certificate



GRADUATE SCHOOL OF EDUCATION

St Luke's Campus
Heavitree Road
Exeter UK EX1 2LU

<http://socialsciences.exeter.ac.uk/education/>

CERTIFICATE OF ETHICAL APPROVAL

Title of Project: Teachers' implicit theories of giftedness, existing gifted education practices and challenges at Cycle two Omani schools

Researcher(s) name: Moza Al Maqbali

Supervisor(s): Tara Fujita

This project has been approved for the period

From: 15/12/2017
To: 15/05/2018

Ethics Committee approval reference:

D/17/18/17

Signature:  Date: 08/12/2017
(Professor Dongbo Zhang, Graduate School of Education Ethics Officer)

Appendix 4.7: The MOE Consent Form (Arabic/English Versions)

بسم الله الرحمن الرحيم

الفاضلة/مديرة المكتب الفني للدراسات والتطوير بوزارة التربية والتعليم المحترمة
الموضوع: طلب موافقة على تطبيق دراسة حول تربية الموهوبين بوزارة التربية والتعليم
يسرني أن أرفق لكم طية من مخطط الدراسة التي أود القيام بها في أربع مدارس تابعة لمحافظة شمال الباطنة التعليمية والتي تشرف عليها وزارة التربية والتعليم. هذه الدراسة جزء من متطلبات رسالة الدكتوراه التي أقوم بها في كلية التربية بجامعة إكسيتر بالمملكة المتحدة. كما أود أن أؤكد تعهدي باستخدام البيانات والمعلومات لغرض البحث العلمي فقط وسوف يتم التعامل معها كبيانات عامة بدون أي تصريح مباشر لأسماء المدارس والأفراد المشاركين بالدراسة.
لذلك أرجو التكرم بالموافقة على تطبيق الدراسة ومخاطبة الجهات المعنية في المديرية العامة للتربية والتعليم بمحافظة شمال الباطنة لتسهيل مهمتي لإتمام هذه الدراسة الميدانية. مع العلم بأن هذه الدراسة تحمل عنوان المفاهيم الضمنية لمفهوم الموهبة والممارسات الحالية والتحديات في مجال تربية الموهوبين في مدارس الحلقة الثانية إناث في محافظة شمال الباطنة، تتبنى هذه الدراسة منهجية دراسة حالة من خلال تركيزها على دراسة الموضوع في أربع مدارس حلقة ثانية إناث في تعليمية محافظة شمال الباطنة التعليمية. وتستهدف فئتين من المشاركين من كل مدرسة هم:

(١) معلمات مادة العلوم والرياضيات واللغة الإنجليزية وتقنية المعلومات
(٢) الطاقم الإداري

سيتم بحث المعتقدات والنظريات الضمنية المتعلقة بمفهوم الموهبة لدى المعلمات من خلال الأداتين التاليين:

-نشاط الاستعارة المكنية أو الصور التشبيهية

سيتم تنفيذه من خلال عقد اجتماع مدته ٤٠ مع معلمات كل مادة في كل مدرسة. يهدف هذا النشاط إلى الكشف عن الأفكار والتصورات والمعتقدات الضمنية التي يحملها المعلمون العمانيون عن مفهوم الموهبة والطالب الموهوب من خلال استنباط الصور التشبيهية والاستعارات المكنية.

-مقابلات جماعية مع معلمات كل مادة لكل مدرسة

سيتم عقد مقابلة جماعية لمعلمات كل مادة في كل مدرسة لمناقشة الصور التشبيهية بشكل أعمق. بالإضافة إلى إنه سيتم مناقشة أسئلة أخرى متعلقة بموضوع الدراسة خلال هذه المقابلة الجماعية. هذه المقابلات ستستمر لمدة ٤٥ دقيقة وستكون باللغة الأم للمشاركات وهي اللغة العربية.

أيضا لدراسة الواقع الحالي لتربية الموهوبين بالمدارس الأربعة المختارة سأقوم بتطبيق:

المقابلة الجماعية: هذه المقابلة الجماعية ستكون مع عدد ثلاثة من أعضاء الطاقم الإداري بكل مدرسة وستكون باللغة العربية وتهدف إلى البحث العميق عن الممارسات المتعلقة بتربية الموهوبين والمنفذة حاليا بالمدارس قيد الدراسة.
كما أود التوضيح هنا بأنني سأقوم شخصيا بتنفيذ كل الأدوات البحثية بعد التنسيق مع المديرية العامة في محافظة شمال الباطنة.

هذا وتقبلوا فائق الاحترام والتقدير

مقدمة الطلب: موزة بنت حمدان بن حسن المقبالية

طالبة دكتوراه بكلية التربية للدراسات العليا/جامعة اكسيتر/ المملكة المتحدة

الوظيفة: أخصائية تدريب لغة إنجليزية بوزارة التربية والتعليم

بيانات للتواصل:

لمعلومات أكثر عن البحث، يمكنكم التواصل مع:

موزة المقبالي

عنوان البريد:

Graduate School of Education

St Luke's Campus

Heavitree Road

Exeter

EX1 2FE

أرقام الهاتف للتواصل:

عمان: ٠٠٩٦٨٩٣٢٩٢٠٠٤

المملكة المتحدة: ٠٠٤٤٧٤٩٢٦٨٦٣٦١

البريد الإلكتروني: ma565@exeter.ac.uk

إذا كان لديكم أي أسئلة متعلقة بالدراسة وترغبون بمناقشتها مع شخص آخر بجامعة إكسيتر، يمكنكم التواصل مع مشرفي الأكاديمي البروفسورة ويندي روبنسون على البريد الإلكتروني:

W.Robinson@exeter.ac.uk

Consent Form (For the MOE)

By the name of Allah, the most gracious the most merciful

Dear/ Head of technical office of studies and development in the Ministry of Education

Subject: Consent request for conducting a study on Gifted Education in the Ministry of Education

I am sending you an outline of the study I would like to conduct in four schools in Batinah North Governorate, which are supervised by the ministry of education. This study is part of my PhD thesis requirements which I am doing at the school of education in the University of Exeter in the UK. Here, I would also like to ensure my commitment to use the collected data and information only for the purpose of research. The data will be used as general data without any explicit mentioning of the names of schools and participants.

Therefore, I would ask for your consent for conducting this study and to officially inform the personnel in Batinah North Educational Directorate to facilitate my task to do this field study. For your knowledge, this study carries the title 'Teachers' implicit theories of giftedness, current practices and challenges of gifted education in cycle two female schools in Batinah North schools'. The study adopts a case study design through focusing the study of the topic on four cycle two female schools in Batinah North governorate. In each school, two groups of participants will be targeted:

1-The science, math, English and IT teachers

2-The administration team

To study teachers' implicit theories of giftedness, two data collection methods will be used:

-Metaphor or Simile activity which will be conducted as a 40 minutes meeting with teachers at each school. The task aims at exploring teachers' theories and beliefs of the concept of giftedness through eliciting their metaphorical image of a gifted learner.

-Focus group interviews: a focus group interview will be conducted with each subject teachers in each school to discuss the metaphorical images in more depth. In addition, other study questions will be discussed during these interviews as well. Each interview will last for 45 minutes and it will be conducted in the participants' native Language, Arabic.

For studying the current gifted education practices at the four schools, I will conduct **focus group interviews**. These interviews will be conducted with three nominated

members of the administration team at each school. As already mention, these interviews aim to explore the existing practices pertaining to gifted education at the studied schools and the encountered challenges

I would like to make it clear that, after the coordination with the Batinah North Educational Directorate, I will conduct all the data collecting methods by myself.

Accept my best regards and appreciation

From: Moza bint Hamdan bin Hassan Al Maqbali

PhD student at Graduate School of Education/ Exeter University/ UK

An English training Specialist at the Ministry of Education

Appendix 4.8: School Principals' Consent Letter (Arabic/English Versions)

استمارة الموافقة للمشاركة في دراسة (إدارة المدرسة)

الموضوع: المفاهيم الضمنية لمفهوم الموهبة عند المعلمات والممارسات الحالية والتحديات في مجال تربية الموهوبين في مدارس الحلقة الثانية إناث في محافظة شمال الباطنة

الفاضلة: مديرة مدرسة.....

أسمي موزة المقبالية، طالبة دكتوراه في جامعة إكسپتر بالمملكة المتحدة. أقوم حاليا بعمل دراسة في مجال تربية الموهوبين في سلطنة عمان من خلال التحقيق في معتقدات ونظريات المعلمين الضمنية المتعلقة بمفهوم الموهبة وأيضا الممارسات المتواجدة حاليا كممارسات تدرج تحت إطار تربية الطلبة الموهوب التحديات التي تواجه تربية الموهوبين في أربع مدارس حلقة ثانية في محافظة شمال الباطنة. يتبنى هذا المشروع البحثي منهجية دراسة الحالة المتعدد من خلال تركيز الدراسة على أربع مدارس حلقة ثانية إناث في محافظة شمال الباطنة وقد تم ترشيح مدرستكم للمشاركة. لذلك هنا سأقدم لكم شرحا لما تودون معرفته لتكونوا على دراية عن طبيعة هذه المشاركة. ستستهدف الدراسة فئتين من المشاركين هم: المعلمات والإداريات. سيتم البحث عن معتقدات ونظريات المعلمات الضمنية لمفهوم الموهبة وممارساتهن المتعلقة بتربية الموهوبين من خلال مرحلتين:

بعد أخذ موافقة المعلمات ستبدأ المرحلة الأولى عبر مشاركتهم في اجتماع مدته ٤٠ دقيقة سيعقد في مدرستكم. يهدف هذا الاجتماع إلى شرح نشاط الصورة التشبيهية وتطبيقه مع المعلمات. من خلال هذا النشاط سيطلب من المشاركات أولا العمل في مجموعة لإكمال العبارة " الطالب الموهوب ك/مثل " سنكمل العبارة باستخدام استعارة مكنية (أو صورة تشبيهية). من ثم كمجموعة سيتوجب على المعلمات تمثيل هذه الصورة التشبيهية بأي شكل يرغبن به سواء صور أو رسومات توضيحية أو اسكتش أو خرائط ذهنية. بعد ذلك سيطلب من المجموعة أيضا كتابة وصف للصورة التشبيهية أو الاستعارة المكنية التي اتفقن عليها وأيضا ذكر الأسباب الكامنة وراء اختيارهن لهذه الصورة التشبيهية أو الاستعارة المكنية. إجابة المعلمات على هذا النشاط ستدعم الدراسة بعدة طرق. فعلى سبيل المثال، الصور التشبيهية للمعلمات ستعطي فكرة عن ماهية الأفكار والتصورات والمعتقدات الضمنية التي يحملها المعلمون العمانيون عن مفهوم الموهبة والطالب الموهوب. إضافة إلى أن البيانات المستنبطة من تحليل النشاط ستستخدم كمحفزات لصياغة أسئلة للمرحلة التالية من جمع البيانات وهي أسئلة المقابلة الجماعية التي سيتم دعوة المعلمات للمشاركة فيها لاحقا. حيث سيخصص جزء من هذه المقابلة لمناقشة الصور التشبيهية بمزيد من العمق إلى جانب مناقشة أسئلة أخرى متعلقة بالموضوع العام للدراسة. خلال هذه المقابلات الجماعية سيطلب من المعلمات المشاركات في إعطاء بعض المعلومات الشخصية كالمؤهل الدراسي والتخصص وسنوات الخبرة، والفرص التدريبية التي حضرتها. هذه المقابلات ستستمر لمدة ٤٥ دقيقة. والجدير بالذكر أن كلا المرحلتين: نشاط الصورة التشبيهية والمقابلة الجماعية ستكون باللغة العربية.

فيما يخص الجزء الآخر من الدراسة والذي يبحث في الممارسات والتحديات المتعلقة بتربية الموهوبين سيتم تطبيق مقابلة جماعية مع مجموعة من الإداريات من أعضاء الطاقم الإداري بكل مدرسة هذه المقابلة الجماعية ستكون مع عدد ثلاثة من أعضاء الطاقم الإداري بمدرستكم والتي سيطلب منكم ترشيحهم للمشاركة في هذه المقابلة. المقابلة ستكون باللغة الأم للمشاركات وهي اللغة العربية. حيث سيركز القسم الأول من هذه المقابلة على إعطاء نبذة عني أنا كباحثة وأيضا مقدمة عن الدراسة وأهدافها ومن ثم سيطلب من المشاركات الإجابة على بعض الأسئلة الخاصة بهم. في حين سيناقش القسم الثاني من المقابلة أي شكل من أشكال الممارسات المطبقة حاليا بمدرستكم كمبادرات لدعم تربية الموهوبين. كما أود أيضا البحث

في مدى الدعم المقدم من قبل كلا من وزارة التربية والتعليم والمديرية العامة للتربية والتعليم بشمال الباطنة والمجتمع المحيط في مجال تربية الموهوبين. المقابلة أيضا ستحاول تسليط الضوء على التحديات التي تواجهها مدرستكم فيما يتعلق بتربية الموهوبين. ستستمر هذه المقابلة بين ٤٥ دقيقة.

بيانات للتواصل:

لمعلومات أكثر عن البحث، يمكنكم التواصل مع:

موزة المقبالي

عنوان البريد:

Graduate School of Education

St Luke's Campus

Heavitree Road

Exeter

EX1 2FE

أرقام الهاتف للتواصل:

عمان: ٠٠٩٦٨٩٣٢٩٢٠٠٤

المملكة المتحدة: ٠٠٤٤٧٤٩٢٦٨٦٣٦١

البريد الإلكتروني: ma565@exeter.ac.uk

إذا كان لديكم أي أسئلة متعلقة بالدراسة وترغبون بمناقشتها مع شخص آخر بجامعة إكسيتر، يمكنكم التواصل مع مشرفي الأكاديمي البروفسورة ويندي روبنسون على البريد الإلكتروني:

W.Robinson@exeter.ac.uk

الموافقة:

أقر بأنه تم إعلامي بشكل كامل عن أهداف هذا المشروع البحثي، أعطي موافقتي للمشاركة بالبحث والتي تتمثل في المشاركة في المقابلة النقاشية. وأنا أدرك أن:

- غير مجبر على المشاركة في هذا البحث ويمكنني الانسحاب في أي وقت.

- لدي الحق في رفض أي نشر للمعلومات الشخصية الخاصة بي.

- المعلومات التي شاركت بها ستستخدم فقط لغرض الدراسة والتي من الممكن أن تستخدم لاحقا للنشر في المجلات الأكاديمية والمؤتمرات والندوات.

- المعلومات التي سأعطيها سيطلع عليها كلا من الباحثة والنساح والمشرف القائم على الدراسة.

- جميع المعلومات التي سأعطيها سيتم التعامل معها بطريقة سرية.

- المقابلة ستكون مسجلة ومن ثم تحول إلى كتابية ولدي الحق لرفض استخدام أي من إجاباتي الحرفية في حالة نشر الدراسة.

- ستحاول الباحثة جاهدة جعل مشاركتي تحت اسم مستعار.

أوافق على استخدام إجاباتي في حالة ما نشرت الدراسة

لا أوافق على استخدام إجاباتي في حالة ما نشرت الدراسة

توقيع المشارك:

التاريخ:

اسم المشارك:

توقيع الباحثة:

اسم الباحثة:

نسخة من هذه الاستمارة ستكون لدى المشاركة ونسخة أخرى ستكون لدى الباحثة.

ملاحظة لحماية البيانات

المعلومات التي ستعطيها سيتم استخدامها لغرض البحث فقط وسيتم التعامل مع بياناتك الشخصية وفقا للتشريع الحالي لحماية البيانات وإخطار الجامعة والتي مقرها مكتب المفوض للمعلومات. سيتم التعامل مع بياناتك الشخصية بسرية كبيرة جدا ولن يتم كشفها لأي طرف ثالث. وفي حالة نشر نتائج الدراسة سيتم نشرها بأسماء مستعارة.

خالص الشكر لتعاونكم
موزة المقبالي

Title of Research Project

Teachers' implicit theories of giftedness, existing gifted education practices and challenges at Cycle two Omani schools

Dear: the headmistress of school

My name is Moza Al-Maqbali, a PhD student at the University of Exeter in the UK. I am currently conducting a study on the field of gifted education in the Sultanate of Oman through investigating Omani teachers' implicit theories and beliefs of giftedness, the exiting practices pertaining to gifted education and the challenges facing gifted education at four cycle two schools in Batinah North Governorate. The project adopts a multiple-case study design by focusing the investigation on four cycle two female schools in Batinah-North governorate and your school has been nominated for participation. Therefore, here, I will provide you with the information you need to know so you are aware of the nature of this participation. The study targets two groups of participants at your school: regular classroom teachers and administrators. Teachers' implicit theories of giftedness and their practices will be explored through two phases:

After obtaining teachers' consent, the first phase will start through getting them to participate in a 40 minutes meeting that will be held at your school. The meeting aims to explain the metaphor activity to teachers and implement it with them. Through this **metaphor activity**, participants will be first asked to work as a group to complete a statement "a gifted learner is like/as _____", the statement should be completed by using a metaphor (or simile). Then, as a group, teachers will have to represent their metaphorical image in any form they like whether picture, drawings, sketches or mind maps. After that, the group will also be asked to write a description of their metaphors in which they describe their metaphor and they give the reasons behind their choice of this simile or metaphor. Teachers' responses to this activity will be insightful in many ways. For example, teachers' metaphors will give insights about what ideas, images and beliefs Omani teachers hold about giftedness and gifted

learners. In addition, the data obtained from the metaphor activity will be also used as stimulus for forming questions for the next phase of data collection; that is the **focus group interviews** in which teacher participants will be invited to take part. Apart from these group interviews will be specified to discuss teachers' metaphors in more depth as well as discussing other questions related to the general topic of this study. During these focus group interviews, teachers will be asked to provide some background information such as qualifications, major, teaching experience and training opportunities they attended. The interviews will last for 45 minutes. It is noteworthy that the whole metaphor meeting and the focus group interview will be conducted in the participants' first language, Arabic.

For the second aspect of the study which explores the current practices and challenges at the four schools **focus group interviews** will be conducted with members of each schools' administration team. These focus group interview will be conducted with three members of the administration team at your school whom you will be asked to nominate for participation. The focus group interview will be conducted in the participants' first language, Arabic, and it will aim at exploring, in depth, the current practices and challenges related to gifted education at your school. The first section of the interview will start by introducing myself and giving a brief introduction about the study as well as asking the participants to respond to some background question. Whereas, the second section of the interview will focus on discussing any existing practices being run at the school as gifted education initiatives. I would also like to explore how gifted education is being supported by the MOE, the Regional Educational General Directorate and the surrounding society. The interview will also try to shed light on the challenges the schools face with regard to gifted education. It will last for 45 minutes.

Contact Details

For further information about the research, please contact:

Name: Moza Al Maqbali

Telephone: 00 44 (0)7492686163 or 0096893292004

Email: ma565@exeter.ac.uk

If you have concerns/questions about the research you would like to discuss with someone else at the University, please contact:

Professor Wendy Robinson

Email: W.Robinson@exeter.ac.uk

Consent

I have been fully informed about the aims and purposes of the project.
I understand that:

- there is no compulsion for me to participate in this research project and, if I do choose to participate, I may withdraw at any stage;
- I have the right to refuse permission for the publication of any information about me;
- any information which I give will be used solely for the purposes of this research project, which may include publications or academic conference or seminar presentations;
- all information I give will be treated as confidential;
- the researcher(s) will make every effort to preserve my anonymity.

.....

.....
(Signature of participant) (Date)

.....

.....
(Printed name of participant) (Email address of participant if they have requested to view a copy of the interview transcript.)

.....

.....
(Signature of researcher) (Printed name of researcher)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher(s).
Your contact details are kept separately from your interview data.

Appendix 4.9A: Teachers' Consent Form (Arabic/English Versions)

استمارة الموافقة للمشاركة في دراسة (المعلمات)

الموضوع: المفاهيم الضمنية لمفهوم الموهبة عند المعلمات والممارسات الحالية والتحديات في مجال تربية الموهوبين في مدارس الحلقة الثانية إناث في محافظة شمال الباطنة

عزيزتي المعلمة

أسمي موزة المقبالية، طالبة دكتوراه في جامعة إكسيتير بالمملكة المتحدة. أقوم حالياً بعمل دراسة في مجال تربية الموهوبين في سلطنة عمان من خلال التحقيق في معتقدات ونظريات المعلمين الضمنية المتعلقة بمفهوم الموهبة وأيضاً الممارسات المتواجدة حالياً في مدارس الحلقة الثانية بمحافظة شمال الباطنة كممارسات تدرج تحت إطار تربية الطلبة الموهوبين، أيضاً الدراسة تبحث في التحديات التي تواجه تربية الموهوبين في المدارس التي تم اختيارها. يتبنى هذا المشروع البحثي منهج دراسة حالة من خلال تركيز الدراسة على أربع مدارس حلقة ثانية إناث في محافظة شمال الباطنة. لذلك مشاركتكم مهمة جداً لتحقيق هدف الدراسة وبالتحديد ستكون مشاركتكم في هذه الدراسة عبر مرحلتين: نشاط الاستعارة المكنية (أو الصور التشبيهية) والمقابلة الجماعية.

بعد أخذ موافقتك ستبدأ المرحلة الأولى عبر مشاركتك في اجتماع سيعقد في مدرستكم ومدته ٤٠ دقيقة بمشاركة زميلات أخريات. يهدف هذا الاجتماع إلى شرح وتطبيق نشاط الصورة التشبيهية. من خلال هذا النشاط سيطلب منك أولاً العمل مع زميلاتك في مجموعة لإكمال العبارة " الطالب الموهوب ك/مثل " ستكمل العبارة باستخدام استعارة مكنية (أو صورة تشبيهية). من ثم يتوجب عليكم كمجموعة تمثيل هذه الصورة التشبيهية بأي شكل ترغبين سواء صور أو رسومات توضيحية أو اسكتش أو حتى خرائط ذهنية. بعد ذلك سيطلب منكن أيضاً كتابة وصف للصورة التشبيهية أو الاستعارة المكنية التي اتفقتن عليها تشرحن من خلالها الأسباب التي جعلتكن تخترن هذه الصورة. إجاباتكم على هذا النشاط ستدعم الدراسة بعدد من الأفكار المهمة جداً. فعلى سبيل المثال هذه الصور التشبيهية ستعكس ماهية الأفكار والتصورات والمعتقدات المتأصلة لدى المعلمون العمانيون فيما يتعلق بمفهوم الموهبة. أيضاً البيانات المستنبطة من تحليل نشاط الاستعارة المكنية (أو التشبيه) ستستخدم كمحفزات لصياغة بعض الأسئلة للمرحلة الثانية من جمع البيانات والمتمثلة في المقابلات الجماعية التي سيتم دعوتك للمشاركة فيها لاحقاً. حيث سيخصص جزء من هذه المقابلة لمناقشة الصور التشبيهية بمزيد من العمق، إضافة إلى مناقشة أسئلة أخرى متعلقة بالموضوع العام لهذه الدراسة. خلال هذه المقابلة الجماعية سيطلب منك إعطاء بعض المعلومات الشخصية كالمؤهل الدراسي والتخصص وسنوات الخبرة، والفرص التدريبية التي حضرتها. هذه المقابلات ستستمر لمدة ٤٥ دقيقة وستكون باللغة الأم وهي اللغة العربية لمعلومات أكثر عن البحث، يمكنكم التواصل مع:

موزة المقبالي

عنوان البريد:

Graduate School of Education

St Luke's Campus

Heavitree Road

Exeter

EX1 2FE

أرقام الهاتف للتواصل:

عمان: ٠٠٩٦٨٩٣٢٩٢٠٠٤

المملكة المتحدة: ٠٠٤٤٧٤٩٢٦٨٦٣٦١

البريد الإلكتروني: ma565@exter.ac.uk

إذا كان لديكم أي أسئلة متعلقة بالدراسة وترغبون بمناقشتها مع شخص آخر بجامعة إكسيتير، يمكنكم التواصل مع مشرفي الأكاديمي البروفسورة ويندي روبنسون على البريد الإلكتروني:

الموافقة:

أقر بأنه تم إعلامي بشكل كامل عن أهداف هذا المشروع البحثي، أعطي موافقتي للمشاركة بالبحث والتي تتمثل في المشاركة في نشاط الصور التشبيهية والمقابلة الجماعية. وأنا أدرك أن:
- غير مجبر على المشاركة في هذا البحث ويمكنني الانسحاب في أي وقت.
- لدي الحق في رفض أي نشر للمعلومات الشخصية الخاصة بي.
- المعلومات التي شاركت بها ستستخدم فقط لغرض الدراسة والتي من الممكن أن تستخدم لاحقاً للنشر في المجالات الأكاديمية والمؤتمرات والندوات.
- المعلومات التي سأعطيها سيطلع عليها كلا من الباحثة والنساح والمشرف القائم على الدراسة.
- جميع المعلومات التي سأعطيها سيتم التعامل معها بطريقة سرية.
- المقابلة ستكون مسجلة ومن ثم تحول إلى كتابية ولدي الحق لرفض استخدام أي من إجاباتي الحرفية في حالة نشر الدراسة.
- ستحاول الباحثة جاهدة جعل مشاركتي تحت اسم مستعار.

أوافق على استخدام إجاباتي في حالة ما نشرت الدراسة

لا أوافق على استخدام إجاباتي في حالة ما نشرت الدراسة

توقيع المشارك: التاريخ:

اسم المشارك:

توقيع الباحثة: اسم الباحثة:

نسخة من هذه الاستمارة ستكون لدى المشاركة ونسخة أخرى ستكون لدى الباحثة.

ملاحظة لحماية البيانات

المعلومات التي ستعطيها سيتم استخدامها لغرض البحث فقط وسيتم التعامل مع بياناتك الشخصية وفقاً للتشريع الحالي لحماية البيانات وإخطار الجامعة والتي مقرها مكتب المفوض للمعلومات. سيتم التعامل مع بياناتك الشخصية بسرية كبيرة جداً ولن يتم كشفها لأي طرف ثالث. وفي حالة نشر نتائج الدراسة سيتم نشرها بأسماء مستعارة.

خالص الشكر لتعاونكم
موزة المقبالي

Consent Form for Research (Teachers/English version)

Title of Research Project

Teachers' implicit theories of giftedness, existing gifted education practices and challenges at Cycle two Omani schools

Dear Teacher,

My name is Moza Al-Maqbali, a PhD student at the University of Exeter in the UK. I am currently conducting a study on the field of gifted education in the Sultanate of Oman through investigating Omani teachers' implicit theories and beliefs of giftedness, the exiting practices pertaining to gifted education and the challenges facing gifted education at four cycle two in Batinah North Governorate. Thus, your contribution to this study is highly needed and will help in achieving the aims, particularly through two phases: the metaphorical task (or simile) and the focus group interview.

After obtaining your approval, the first phase will start through participating in a 40 minutes meeting which will be held at your school with you and your colleagues. This meeting aims to explain and do the metaphor activity. During the **metaphor activity you will first be asked** to work with your colleagues as a group to complete a statement "a gifted learner is like/as _____" using a metaphor (or simile). Then, you will have to represent your metaphorical image in any form you like whether picture, drawings, sketches or mind-maps. After that, you will also be asked to provide a written description of the metaphorical image or the simile you agreed on in which you explain the reasons for choosing this image. Your responses to this activity will be insightful to this study in many ways. For example, your metaphorical images will give insights about what ideas, images and beliefs Omani teachers hold pertaining to the conception of giftedness. In addition, the data obtained from the analysis of the metaphor activity, will be also used as stimulus to form questions the next phase of data collection; that is the focus group interviews which you will be invited to take part in later. A part of this interview will be used to discuss these metaphors in more depth and also to discuss other questions related to the general topic of this study. In these group interviews, you will be asked to provide some background information such as your qualification, major, and teaching experience and training opportunities you attended; these interviews may last for 45 minutes and it will be in the participants' native language, Arabic.

Contact Details

For further information about the research /think aloud reports, please contact:

Name: Moza Al Maqbali
Postal address: Graduate School of Education
St Luke's Campus
Heavitree Road
Exeter
EX1 2LU

Telephone: 00 44 (0) 7492686163.

Email: ma565@exeter.ac.uk.

If you have concerns/questions about the research you would like to discuss with someone else at the University, please contact my supervisor:

Professor Wendy Robinson, Email: W.Robinson@exeter.ac.uk

Consent

I have been fully informed about the aims and purposes of the project. I give my consent to participate in this research through the metaphor task and interviews. I understand that:

- there is no compulsion for me to participate in this research project and, if I do choose to participate, I may withdraw at any stage;
- I have the right to refuse permission for the publication of any information about me;
- any information which I give will be used solely for the purposes of this research project, which may include publications or academic conference or seminar presentations;
- the information, which I give, will be seen by the researcher herself, transcriber and her supervisor in an anonymised form;
- all information I give will be treated as confidential;
- the interviews will be audiotaped and transcribed afterwards and I have the right to refuse to use any verbatim responses if research is published;
- the researcher will make every effort to preserve my anonymity.

I give my permission to use my verbatim responses if research is published.

I do not give permission to use my verbatim responses if research is published.

.....

.....
(Signature of participant) (Date)

.....
(Printed name of participant)

.....

.....

(Printed name of researcher)

(Signature of researcher)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher(s).

Data Protection Notice

The information you provide will be used for research purposes and your personal data will be processed in accordance with current data protection legislation and the

University's notification lodged at the Information Commissioner's Office. Your personal data will be treated in the strictest confidence and will not be disclosed to any unauthorised third parties. The results of the research will be published in anonymised form.

Thank you in advance for your help.

Moza Al Maqbali

Appendix4.9B: Administrators' Consent Form (Arabic/English Versions)

استمارة الموافقة للمشاركة في دراسة (الإداريات)
الموضوع: المفاهيم الضمنية لمفهوم الموهبة عند المعلمات والممارسات الحالية والتحديات في مجال تربية الموهوبين
في مدارس الحلقة الثانية إناث في محافظة شمال الباطنة

عزيزتي الإدارية

أسمي موزة المقبالية، طالبة دكتوراه في جامعة إكسيتر بالمملكة المتحدة. أقوم حالياً بعمل دراسة في مجال تربية الموهوبين في سلطنة عمان من خلال التحقيق في معتقدات ونظريات المعلمين الضمنية المتعلقة بمفهوم الموهبة وأيضاً الممارسات المتواجدة حالياً في مدارس الحلقة الثانية بمحافظة شمال الباطنة كممارسات تدرج تحت إطار تربية الطلبة الموهوبين، أيضاً الدراسة تبحث في التحديات التي تواجه تربية الموهوبين في المدارس التي تم اختيارها. يتبنى هذا المشروع البحثي منهج دراسة حالة من خلال تركيز الدراسة على أربع مدارس حلقة ثانية إناث في محافظة شمال الباطنة. لذلك مشاركتك مهمة جداً لتحقيق أهداف الدراسة وبالتحديد فيما يخص الجزئية المتعلقة باستكشاف الممارسات والتحديات الخاصة بتربية الموهوبين في مدرستك.

سيتم دعوتك للمشاركة في مقابلة جماعية إلى جانب اثنتان من أعضاء الطاقم الإداري بمدرستكم. هذه المقابلة ستكون باللغة العربية وستهدف إلى التحري والبحث عن الممارسات الموجودة حالياً في مدرستكم بشكل أكثر تفصيلاً. ستبدأ المقابلة بإعطاء نبذة عني كباحثة وأيضاً نبذة مختصرة عن الدراسة وأهدافها ومن ثم سيطلب منكم الإجابة على بعض الأسئلة الخاصة بكم. بعد ذلك سنناقش أي شكل من أشكال الممارسات المطبقة حالياً بمدرستكم كمبادرات لدعم تربية الموهوبين. كما أود أيضاً البحث في دور كلا من وزارة التربية والتعليم والمديرية العامة للتربية والتعليم بشمال الباطنة والمجتمع المحيط في دعم تربية الموهوبين. المقابلة أيضاً ستحاول تسليط الضوء على التحديات التي تواجهها مدرستكم فيما يتعلق بتربية الموهوبين. ستستمر هذه المقابلة بين ٤٥ دقيقة.

بيانات للتواصل:

لمعلومات أكثر عن البحث، يمكنكم التواصل مع:

موزة المقبالي

عنوان البريد:

Graduate School of Education

St Luke's Campus

Heavitree Road

Exeter

EX1 2FE

أرقام الهاتف للتواصل:

عمان: ٠٠٩٦٨٩٣٢٩٢٠٠٤

المملكة المتحدة: ٠٠٤٤٧٤٩٢٦٨٦٣٦١

البريد الإلكتروني: ma565@exeter.ac.uk

إذا كان لديكم أي أسئلة متعلقة بالدراسة وترغبون بمناقشتها مع شخص آخر بجامعة إكسيتر، يمكنكم التواصل مع مشرفي الأكاديمي البروفسورة ويندي روبنسون على البريد الإلكتروني:

W.Robinson@exeter.ac.uk

الموافقة:

أقر بأنه تم إعلامي بشكل كامل عن أهداف هذا المشروع البحثي، أعطي موافقتي للمشاركة بالبحث والتي تتمثل في

المشاركة في المقابلة النقاشية. وأنا أدرك أن:

- غير مجبر على المشاركة في هذا البحث ويمكنني الانسحاب في أي وقت.

- لدي الحق في رفض أي نشر للمعلومات الشخصية الخاصة بي.
- المعلومات التي شاركت بها ستستخدم فقط لغرض الدراسة والتي من الممكن أن تستخدم لاحقا للنشر في المجالات الأكاديمية والمؤتمرات والندوات.
- المعلومات التي سأعطيها سيطلع عليها كلا من الباحثة والنساح والمشرف القائم على الدراسة.
- جميع المعلومات التي سأعطيها سيتم التعامل معها بطريقة سرية.
- المقابلة ستكون مسجلة ومن ثم تحول إلى كتابية ولدي الحق لرفض استخدام أي من إجاباتي الحرفية في حالة نشر الدراسة.
- ستحاول الباحثة جاهدة جعل مشاركتي تحت اسم مستعار.

أوافق على استخدام إجاباتي في حالة ما نشرت الدراسة

لا أوافق على استخدام إجاباتي في حالة ما نشرت الدراسة

توقيع المشارك: التاريخ:

اسم المشارك:

توقيع الباحثة: اسم الباحثة:

نسخة من هذه الاستمارة ستكون لدى المشاركة ونسخة أخرى ستكون لدى الباحثة.

ملاحظة لحماية البيانات

المعلومات التي ستعطيها سيتم استخدامها لغرض البحث فقط وسيتم التعامل مع بياناتك الشخصية وفقا للتشريع الحالي لحماية البيانات وإخطار الجامعة والتي مقرها مكتب المفوض للمعلومات. سيتم التعامل مع بياناتك الشخصية بسرية كبيرة جدا ولن يتم كشفها لأي طرف ثالث. وفي حالة نشر نتائج الدراسة سيتم نشرها بأسماء مستعارة.

خالص الشكر لتعاونكم
موزة المقبالي

Consent Form for Research (Administrators/English Version)

Title of Research Project

Teachers' implicit theories of giftedness, existing gifted education practices and challenges at Cycle two Omani schools

Dear administrator,

My name is Moza Al-Maqbali, a PhD student at the University of Exeter in the UK. I am currently conducting a study on the field of gifted education in the Sultanate of Oman through investigating Omani teachers' implicit theories and beliefs of giftedness, the existing practices pertaining to gifted education and the challenges facing gifted education at four cycle two schools in Batinah North Governorate. The project will follow a multiple-case study design by focusing the investigation on four cycle two female schools in Batinah North governorate. Thus, your participation is greatly needed to achieve the aims of the study and particularly with the aspect related to the exploration the current practices and challenges pertaining to gifted education at your school.

You will be invited to take part in a focus group interview beside other two members of the administration team at your school. This focus group interview is going to be in Arabic and it aims to explore the existing gifted education practices at your school in more details. The interview will start by introducing myself and giving a brief introduction about the study and its aims and then you will be asked to respond to some background questions about yourself. Then, we will discuss any form of existing practices being run at your school as gifted education initiatives. I would like also to explore how gifted education is being supported by the MOE, the regional Educational directorate and the surrounding society. The interview will also try to shed light on the challenges your school encounters with regard to gifted education.

The interview will last between 45-60 minutes

Contact Details

For further information about the research, please contact:

Name: Moza Al Maqbali

Postal address: Graduate School of Education
St Luke's Campus

Heavitree Road
Exeter
EX1 2LU

Telephone: 00 44 (0) 7492686163.

Email: ma565@exeter.ac.uk.

If you have concerns/questions about the research you would like to discuss with someone else at the University, please contact my supervisor:

Professor Wendy Robinson, Email: W.Robinson@exeter.ac.uk

Consent

I have been fully informed about the aims and purposes of the project. I give my consent to participate in this research through the interviews.

I understand that:

- there is no compulsion for me to participate in this research project and, if I do choose to participate, I may withdraw at any stage;
- I have the right to refuse permission for the publication of any information about me;
- any information which I give will be used solely for the purposes of this research project, which may include publications or academic conference or seminar presentations;
- the information, which I give, will be seen by the researcher herself, transcriber and her supervisor in an anonymised form;
- all information I give will be treated as confidential;
- the interviews will be audiotaped and transcribed afterwards and I have the right to refuse to use any verbatim responses if research is published;
- the researcher will make every effort to preserve my anonymity.

I give my permission to use my verbatim responses if research is published.

I do not give permission to use my verbatim responses if research is published.

.....
(Signature of participant)

(Date)

.....
(Printed name of participant)

(Printed name of researcher)

(Signature of researcher)

One copy of this form will be kept by the participant; a second copy will be kept by the researcher(s).

Data Protection Notice

The information you provide will be used for research purposes and your personal data will be processed in accordance with current data protection legislation and the University's notification lodged at the Information Commissioner's Office. Your personal data will be treated in the strictest confidence and will not be disclosed to any unauthorised third parties. The results of the research will be published in anonymised form.

Appendix: 4.10: An Example of a Transcribed and Translated Interview

Researcher: Yesterday I gave you this task, can anyone remind what the idea was?

Aram: About a gifted learner and thinking of a specific character to represent it.

Researcher: You mean a metaphorical image to depict it, for the science teachers Hajer and Aram, may you show us the image you agreed on?

Hajer: We think a gifted learner is like a rose that spreads its nice fragrance

Researcher: How?

Aram: if a gifted learner manages to show himself, he becomes very important as the rose is

Researcher: How is that? do you means he is like a rose always spreads its fragrance?

The group: yes

Researcher: well, are there other mutual features between the image and the gifted?

Hajer: Of course, there are but we focused on this

Researcher: I want you to elaborate on this, could you clarify more? on what basis you selected a rose to represent a gifted learner?

Aram: yes, the smell and the different colours as well and other things

Hajer: Amm, we won't say variety because he might be gifted in one domain

Researcher: Okay, let's listen to math teachers, Halima and Fadwa

Halima: We depicted a gifted learner as a painter because the painter has a wide imagination and he has the ability to express his feelings through the things he puts on the painting, he uses the colours he wants, so we feel this image reflects a gifted learner's character

Researcher: Well, I think all of you have a teaching experience of not less than five years, don't you?

The group: Yes

Researcher: Then, think of a particular student you have taught through your teaching years either in this school or any previous schools you taught in, a student that came to your mind when you were doing the metaphor activity, what are the shared characteristics between this student and the image you selected?

Halima: They always like to be recognized, and they want others to be happy with their achievements

Researcher: You mean they like to make others happy?

Halima: Yes, I mean that when they practice their gift they don' only want to feel happy, but they want others around them to feel happy too

Fadwa: I feel that the students I thought of like to show their gifts and they tried to be creative in what they were doing

Researcher: So, you agreed with Halima on the point that they like to be visible and recognized?

Fadwa: Yes

Halima: Their products make them visible and not the opposite, I mean what makes him visible is his work

Fadwa: Yes the work they produce, they are also initiative, they themselves suggest doing things and they give ideas and suggestions and they do what they suggest

Researcher: Good, this leads me to the next question, when we talk about those students whom you thought of, did you think of students who are academically excellent?

Halima: Some of them are academically excellent and some are not, they are two types. A group of them are the excellent and the other group are those who have a gift and they initiate and suggest ideas to do something

Researcher: Well, could you give me examples of these gift domains? You said they are not only the academically excellent students, they have specific things, what do you mean by these things?

Halima: I mean they have taste in something, for example they like designing

Researcher: Designing, what other domains?

Halima: Designing, painting and computing

Hajer: Mechanics

Researcher: Even girls?

Hajer: No, I mean boys, I have a student whose level is below average, but if you give him a task on mechanics, he will give you a perfect product

Researcher: Hajer, you are a science teacher that's why you thought of this domain

Hajer: I think high academic achievement is not a criterion for giftedness, I mean there are students who barely know how to read or write, I personally know a student who doesn't know how to read or write, but you will get amazed when you observe him working with cars, just give him a car and ask him to fix it

Researcher: You mean this person did not go to a school or he did not complete his education?

Hajer: No, he is not from this school

Fadwa: As Hajer said, to be a gifted does not mean that the student has to be academically excellent, we can say it instinctively appears

Aram: It needs to be discovered by someone

Researcher: How? Do you mean it exists in the person?

Fadwa: Yes, and if the person's giftedness finds the supporting environment, it may manifest

Researcher: Well, Fadwa you previously said that giftedness is an instinct, what do you think of someone says that giftedness is inherited?

Fadwa: Well, an instinct is related to heredity

Researcher: Ammm, in a yesterday interview one of the teachers said that giftedness is a god' endowment, today you said it is an instinct. These ideas concerning the origins of giftedness as a god's endowment, an instinct or as an inherited construct require us to rethink about giftedness

Halima: Regarding heredity, sometime a person can inherit something even from the seventh ancestor

Researcher: You mean, it doesn't necessarily appear with the mother or father, but it appears with their children

Halima: Yeah, it appears with the grandchildren, as we say 'alarq dasas (Arabic proverb).

Researcher: When they relate giftedness to heredity, they mean that if the father is a gifted actor, his child is expected to be a gifted actor, if the father is a painter, the child might be a gifted painter...etc

The group: not a condition

Fadwa: probably, but not a condition

Hajer: Ammm, it can happen because I like that thing, I mean for example, my mum like cooking, I like cooking as well, so I tried it out, I like it so it develops in that way

Aram: So, you have an interest in it

Researcher: Ahha, but do you feel that if they don't have the instinct or they don't have the genes, they can excel it? I mean if I like a domain and I start practicing it, will it....

Fadwa: Yeah, with practice

Researcher: Well, but will it reach to giftedness

Fadwa: Yeah, it can reach

Halima: Ammm, for example I liked cooking, I tried, and I practiced a lot, but I failed, I think because I don't own the gift, I tried and I practiced but...

Researcher: Yeah, they always say that cooking is a breath, you follow exactly the same instructions, but....

Halima: yeah, exactly

Fadwa: I didn't know anything about cooking, but last Ramadhan I like to make new dishes for my family, I followed the instructions, but I failed

Halima: See, they say it is with practice and instinct, and for practice it depends on the surrounding environment

Hajer: Practice polishes the gift

Researcher: Well, from your perspectives, and I think one of you already mentioned something related to this, is giftedness specific or general? I mean, is a gifted learner is the one who is gifted in everything?

The group: not always

Aram: Sometimes a gifted learner is gifted in one domain, but he also has interests in other things

Researcher: but if we think of giftedness, where does it manifest? For example, one time you give him a chance to work on mechanics, another time you give him a task on cooking, do you think as a gifted student he always excels everything?

Aram: hahah, he might have more than one genetic predisposition

Hajer: No, I don't think, giftedness manifest in one particular thing

Fadwa: He might also be gifted in all domains, I have a female student who is gifted in everything, acting, presenting, innovations

Researcher: Well, don't you feel that there is one domain which dominates others? I mean she might perform highly in everything you ask her to do because of her personal and social skills, but don't you feel that her real gift might recognizably manifest in a particular domain more than others?

The group: yes, that's possible

Researcher: Well, what about intelligence and its relationship with giftedness? They say that if I want to judge students in terms of giftedness, I give them an intelligence gift and they should score highly

Halima: as I know, there are types of intelligences

Aram: Not necessarily

Researcher: what you mean Halima is specific intelligences, there are general intelligence and Gardner's specific intelligences, do you think that to judge a student as gifted or not, he should get a high score in the general intelligence test?

Halima: Not necessary, we have met gifted students whose academic achievement was below average

Aram: yeah, below average

Researcher: Well, Hajer what do you think of this point, IQ and giftedness?

Hajer: See, from my view, no one is stupid, all people have a level of intelligence, but it depends on a person's way to develop this intelligence. I mean a normal person can increase his intelligence, now there are electronic games that can help. It might be that a person has intelligence but there was no one to help him to develop his intelligence

Researcher: A good point, she said that no one is stupid, but to be nominated for a gifted program, should he get high IQ? I mean if I have a student with an average IQ, can he still be gifted?

The group: Yes

Researcher: Well, what about social skills? Let's think back about the students you thought previously, how can you judge their social relationships with their peer students or with you as teachers?

Aram: they vary, some of them are very sociable, they talk with you and they try to show themselves, but some of them tend to be less sociable or introverted, so you need to work harder with them, I mean they are not initiative, you might only discover their gift by coincidence

Researcher: They are only recognized if the teacher discovers them?

Aram: Yeah

Hajer: See, they start to care about the person who cares about them,

Aram: They only start to show their gifts if they feel that the surrounding environment cares about them

Researcher: Well, what about their relations with their peers? You have just talked about their relationships with their teachers, but what about their peers?

Halima: I see them as good relations, I mean there are gifted students who are not socially recognizable, I mean they might not have constructed good social relationships with their teachers, but their relations with their peers are good

Researcher: In many interviews I conducted with teachers, they mentioned that most gifted learners tend to be selfish, they might have related selfishness with the student's desire to be recognizable, what do you think?

Halima: there is a group who is like that

Aram: but not all of them

Hajer: I feel selfishness appears more among students who are academically gifted (mujeeden)

Researcher: May be because they always want to be at the top places. Well, do you think that giftedness is related to creativity? But let's first define creativity or *lbda'*

Halima: a crazy idea

Researcher: A crazy idea? Haha, what do you mean?

Halima: I mean something does not exist before and when you see it you say waaaaw, that's creativity, an idea that is not there before

Hajer: Or something previously exist but you add your own touches and you turn into unfamiliar thing

Researcher: You mean a new way?

Hajer: Yeah, a new way that is unfamiliar

Researcher: Fadwa, what does creativity mean to you?

Fadwa: It means an idea that I exerted much effort on, so it becomes real, indescribable feeling

Researcher: Well, from your viewpoint, to judge a student as a gifted or not, should he show me something creative, new or unfamiliar as you described it?

Aram: Not necessary

Halima: No, because some students are gifted but they don't work on themselves, so they don't reach creativity level. May be because they don't want. However, there are some gifted students who want to develop themselves and move to higher levels, I mean if you compare between their old work and now you will say there is a visible progress

Researcher: Well, what I have understood from your words is that a gifted student doesn't need to show me something different, but how I can recognize him from others?

Hajer: but giftedness is completed by creativity, there should be something recognizable

Researcher: Does that mean that to judge him as gifted he should bring in something different from peers? I might have three or four students whom I think are gifted at something, but what makes me to label a particular student as gifted while others are not? This is the question, what does characterize this student and make him different than the other twenty students in the class?

Hajer: the great ideas he comes up with

Researcher: what do you mean by the great ideas?

Aram: the creativity in the domain

Hajer: I mean, the idea did not exist with the rest of the students, but it exists with him

Researcher: Well, as I ask you this question I want you to relate it to the students you thought of, do you think that the family economic level plays a role in giftedness manifestation? I mean that giftedness rarely manifest among students who come from low-income families?

Aram: No, no, no, not necessary. There are students whose economic status is weak, but they possess gifts, even if their family's income is weak, they still can. For example, here at this mountainous school, the economic status of the families is generally weak, but some students show giftedness in technology, so giftedness is not related to money

Researcher: So, do you think there are examples of these gifts in this school? Have you met such examples?

Aram: there are gifted students, but their academic level is low

Hajer: I feel that students in this area do not have self-confidence

Researcher: How is that Hajer?

Hajer: I mean a student does not have confidence in himself

Researcher: why do you think so?

Hajer: I am not sure, but I feel students are not self-confident enough, they don't like to participate in the morning broadcast, why?

Researcher: Do you think co-education play a role here? Because students and teachers are mixed in gender?

The group: No, no

Hajer: This might be a reason, but they are separate in classrooms, males have their own classrooms and female students have their own classrooms. Yet, they are the same, nothing changes

Aram: it's their nature

Researcher: So, do you think that despite these circumstances, gifts still exist?

Aram: yes, they exist

Hajer: but there are students at the higher grades like ninth, the tenth they frankly tell the school's principal that they don't want to present in the morning broadcast, I feel that if we are only females without the males it will be different

Aram: you see now grade 11 students participate and they are doing well

Hajer: but still there are female students who refuse to participate

Aram: May be these are students with low level

Researcher: So, what I understood from you Hajer is that co-education might be a reason behind why some gifts remain hidden here, I agree with you many of students' gifts are shown through the school morning broadcast. What I understood also is that co-education might make many students in this school less self-confident and shy which of course negatively affected gifts' manifestation in this school.

Hajer: Exactly, that's what I feel

Researcher: What about gender (male and female), do you think giftedness is related to gender? Some people say that males are usually gifted in specific domains and females show giftedness in other domain, do you feel this idea is reflected in this school? Halima, I can see you are nodding your head

Halima: If I talk about my general impression, I feel that males are more gifted, I don't know why

Researcher: In what?

Halima: males are more gifted in all domains, even in the domains such as designing, décor, fashion design and cooking which are supposed to be females' domains, nowadays males are recognized more".

Researcher: Why is that do you think? Does biology has any role?

Halima: possible genes?

Researcher: I read in one of the articles that giftedness manifests more in scientific domains with males, whereas females show more gifts in artistic domains

Halima: It's said that a woman's brain bigger than a man's brain

Hajer: This could be attributed to the fact that men only think in one thing at a time, whereas women think in multiple things at the same time, men can't do that. You can rarely find a man who does many things at the same time, so this maybe explain why men show more gifts than women

Researcher: Aram and Fadwa, what do you think of the relationship between giftedness and gender? I mean he is gifted in that domain because he is a man and she is gifted in that domain because she is a woman?

Aram: At the present time, No. Nowadays, all of them can excel in all domains, I don't think there are specific domains for males and others for females

Researcher: but, do you agree with Halima who said that males show more gifts than female?

Aram: Yes

Researcher: What are the factors behind this?

Halima: Males like to show themselves more

Researcher: by the way, someone related it to the culture and society, to what extent do you agree?

Hajer: social media might play a role here, the appearance of women on social media is still considered as a shame in our society, but for a man it is okay, as he doesn't have anything to lose.

Researcher: So, do you agree with Fadwa who said that men are given more freedom?

Hajer: yes, this is our reality, men are granted more freedom than women

Researcher: let me pose the question in another way, do you think that the nature of our society has an impact on the giftedness domain? Yesterday as I was talking with the school administration about this they said that there is a strong attitude towards Music subject

The group: very true

Researcher: How?

Halima: See in this school there are students who like to learn music and you can see how good they are at music, yet, they are under pressure, their parents don't allow them to learn music

Researcher: Why?

Halima: Because it is a shame and haram, thus there were students who withdrew from the music Society

Hajer: I used to have students with low academic achievements, but they showed high skills in music

Researcher: Then, you agree that the society and its culture have a big role in determining the giftedness domain? Now you have talked about giftedness and you said that despite the school circumstances, there are students who show gifts, how do you deal with them?

Hajer: I keep them busy

Researcher: how?

Hajer: For example, if we prepare for an exhibition I choose the students based on their gifts because they can help me a lot in this

Halima: the same for me, I remember a group of students who were gifted in designing, so they helped us a lot in preparing the math exhibition.

Researcher: Well, as I understood, all of these are extracurricular activities which students are engaged in, what about classrooms, as teachers how do you try to meet gifted students' needs?

Aram: Even in the classroom, I get them to make me drawings and we display them in the classroom, sometimes if I need a display I ask these specific students to do so and they usually make great products

Researcher: I still have one last question, what are the challenges you are facing with these students?

Halima: motivation, they lack motivation

Researcher: I mean gifted learners, I know there are general issues you are facing with all students in general, but here I mean the challenges you are facing with this category of students

Hajer: time, maybe

Researcher: time? What do you mean?

Hajer: I don't have time to follow them, I need to finish my lesson

Aram: I honestly try to occupy them, for example I give them the responsibility of preparing and delivering some parts of the curriculum, they create displays and they bring models and they usually do greatly

Researcher: So, when you ask them such things, you find them ready?

Aram: Yeah and sometimes you provide them with materials

Researcher: Okay, these are some challenges, what are the suggestions you might suggest if we assume that Dr.Madeeha (the MoE's minister) is here now and she asks you to give some ideas to enhance gifted education in your schools?

Aram: provide schools with the basic materials

Researcher: what else?

Fadwa: Establish a special place at each school for gifted learners where they can practice their gifts

Halima: I think we need to help them in using their time. I might disagree with the latest decision by the ministry concerning morning assembly as I feel morning assembly is not that important. I mean they need to have a specific time to practice their gifts either during the morning or even after school, they can stay at school and practice their gifts

Researcher: You mean if a student has an interest in a specific domain he stays at school and practice his gift?

Halima: Yes exactly

Hajer: Also, during the free periods, not all students like reading to go to the learning resource center, some students like to play football, so they can go to specific places and practice their gifts

Researcher: So, do you think the school is able to support students' gift?

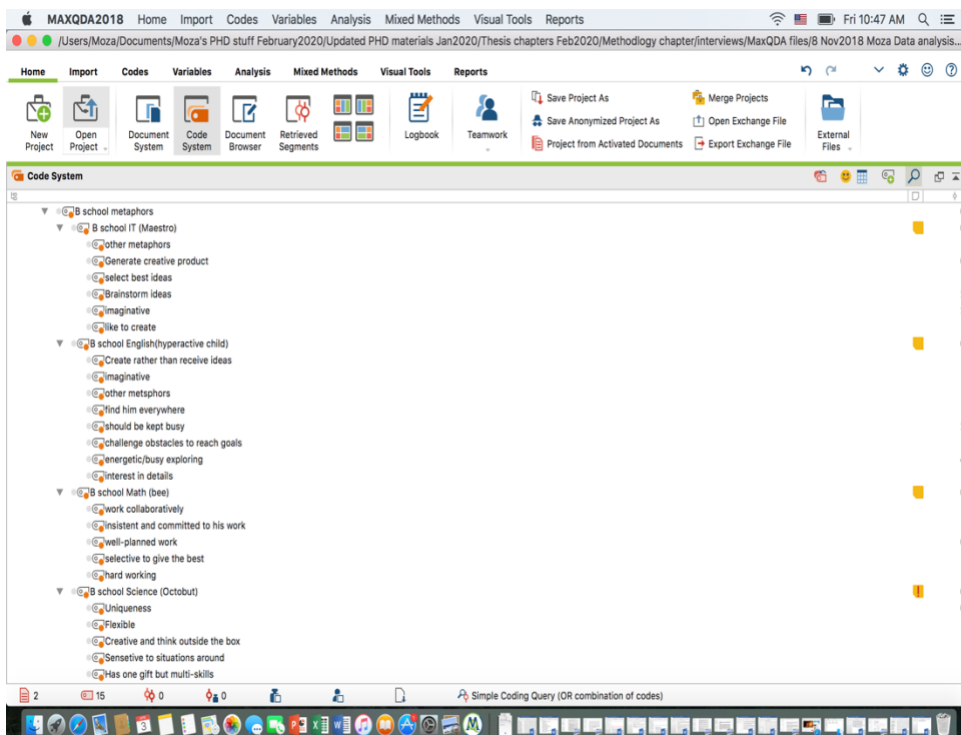
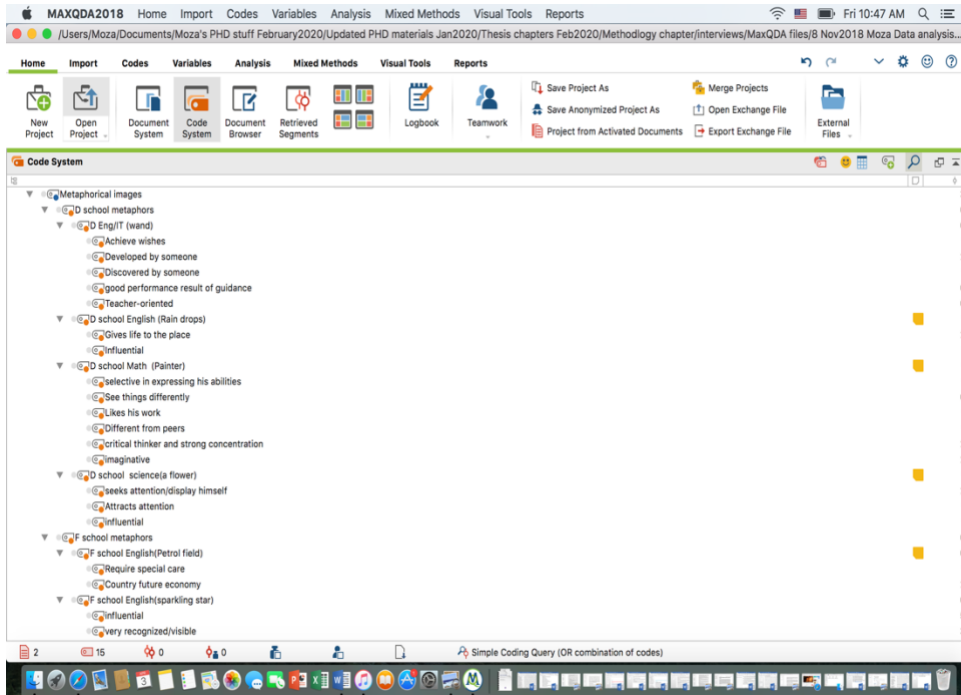
Aram: to some extent

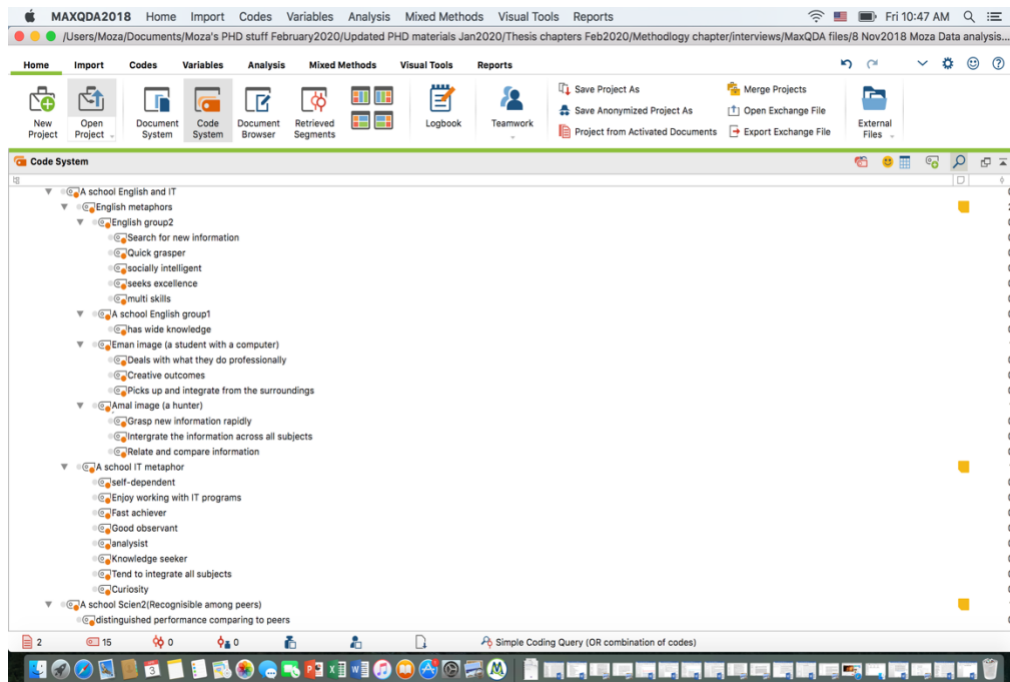
Hajer: I believe that if you want something you can do it, but the problem is that this is my first year in this school. The problem is that if want to do something, I am encountered frustration from others, don't do this and don't do that. Even if I insist on doing it, I need help as you know one hand does not clap

Researcher: for your knowledge, for both: students or teacher, a creative person remains creative under any circumstances. Despite the circumstances of this school and through my talk with the school administration yesterday, they mentioned examples of teachers who perform greatly. I wish I can stay longer with you and discuss more, I tried to discuss my questions with you briefly because I know you have lessons and other school duties, thank you.

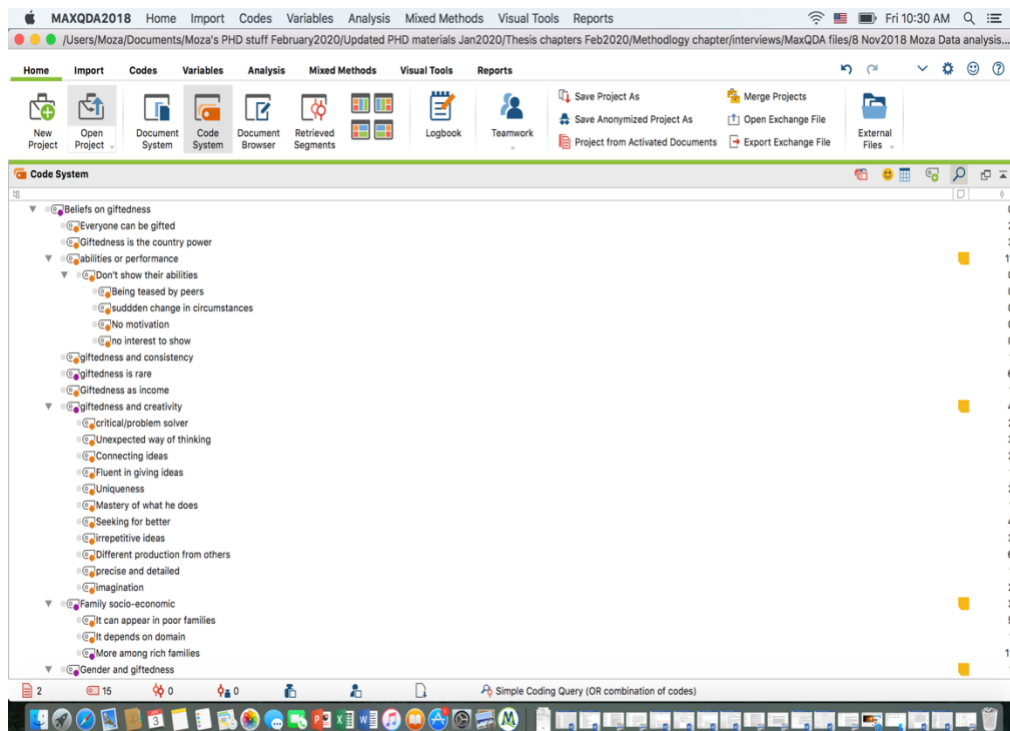
Appendix 4.11: Examples of Codes and Sub-Codes

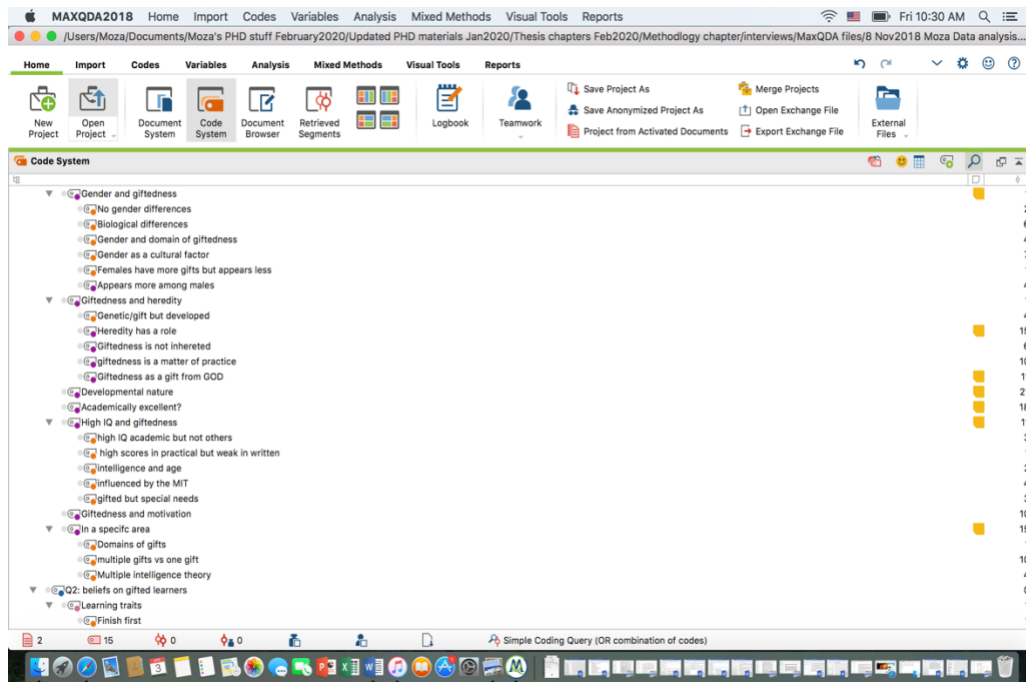
1-Codes on metaphorical images



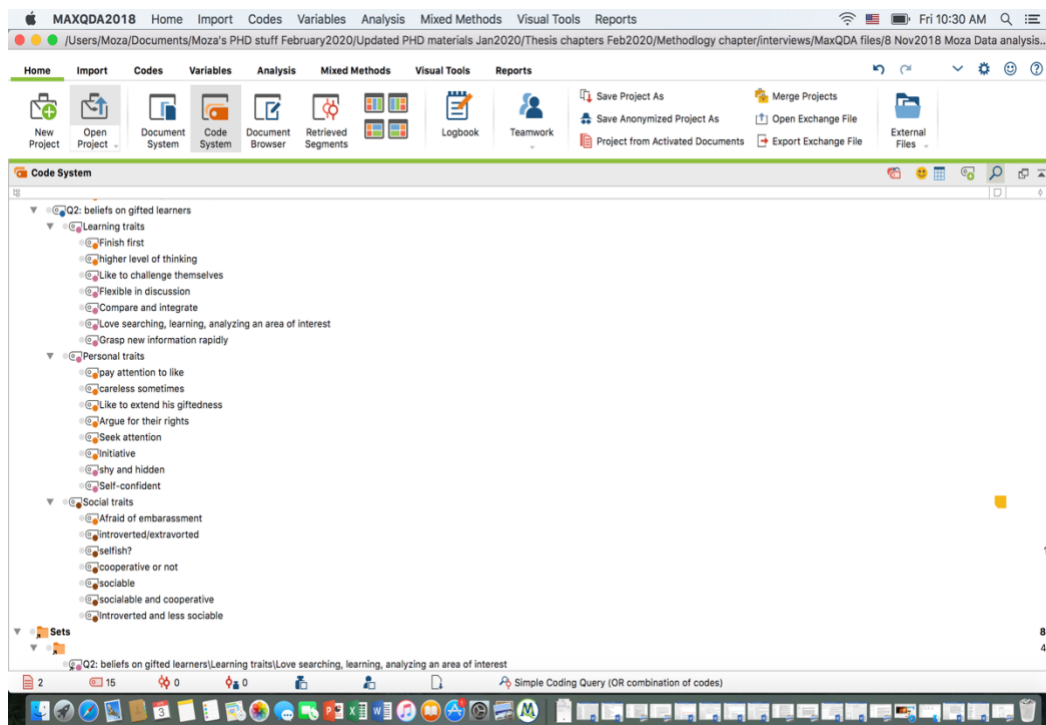


2-Codes on giftedness beliefs

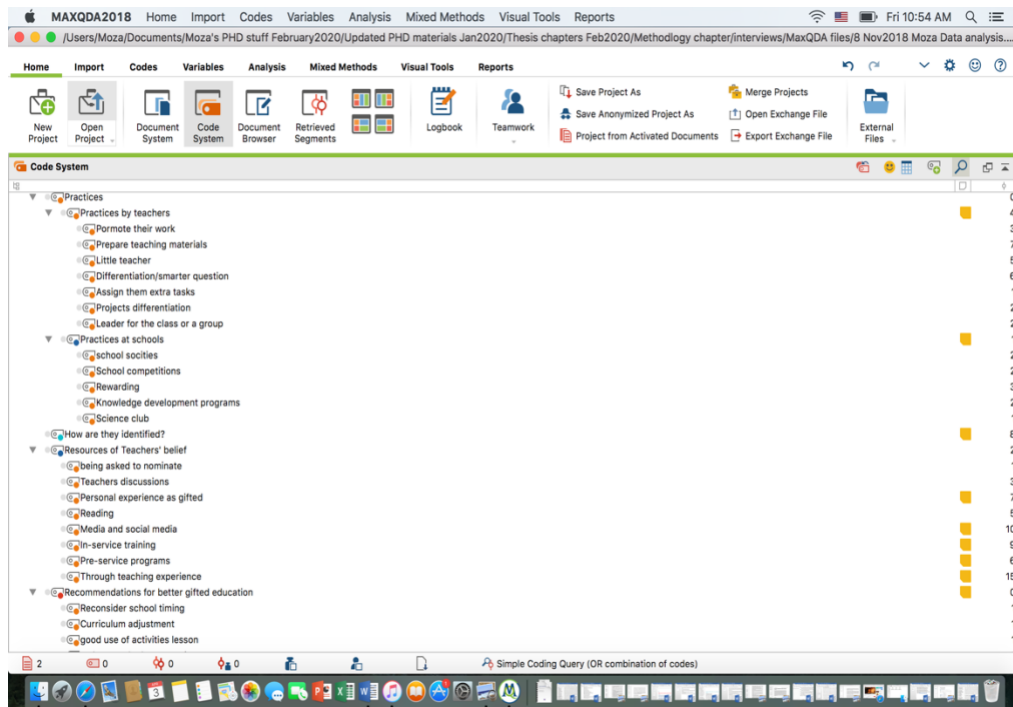




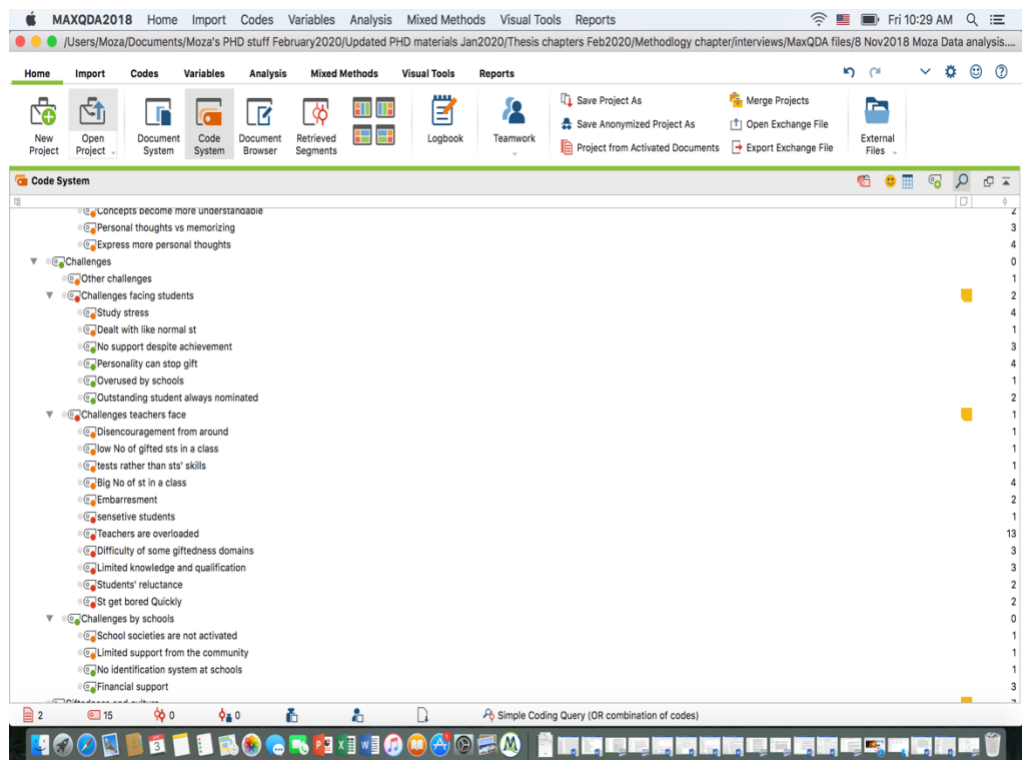
3-Codes on beliefs on gifted learners



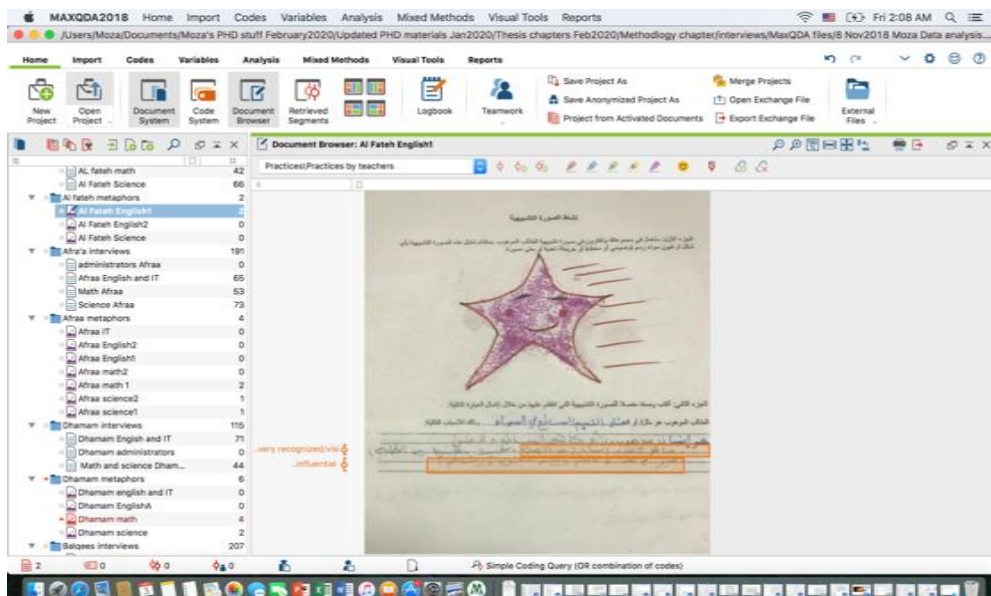
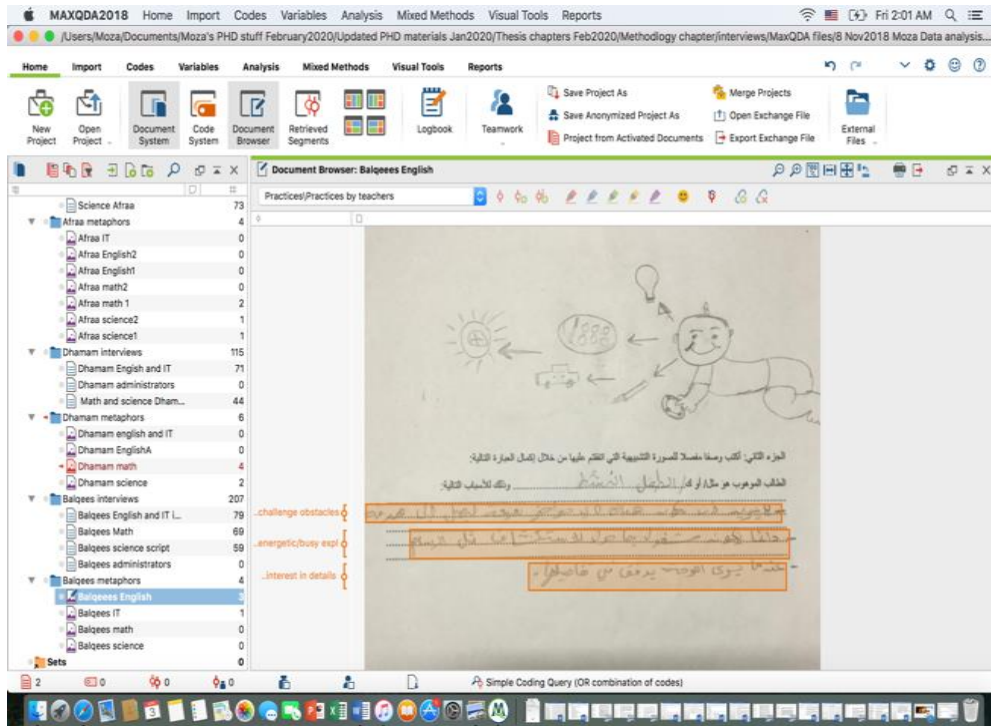
4-Codes on gifted education practices/sources of teachers' theories



5-Codes on challenges



Appendix 4.12: Examples of annotations on metaphorical images



Appendix 7.1: A Summary of Renzulli’s Identification System (From El Houry & Al-Hroub, 2018, p.47)

By using Renzulli’s identification system, gifted students could be accurately identified regardless of their achievements in school, whether or not they were motivated, or if they exhibit bad behaviour. Renzulli proposed a six-step system, as follows: (*Step 1*) test score nominations, (*Step 2*) teacher nominations, (*Step 3*) alternative pathways, (*Step 4*) special nominations, (*Step 5*) notification and orientation of parents, and (*Step 6*) action information nominations.

Step 1: it entails gathering students’ scores on any type of intelligence tests. Students who score at or above the 92nd percentile would be nominated. In this step, students who score high on either or both verbal and nonverbal ability tests are entered in the “talent pool.” This means that excellent students who are under- achievers can be selected.

Step 2: it entails gathering information from teachers who are able to detect abilities and characteristics not measured by standard intelligence tests, such as creativity, interest, talents, and task commitment. Teacher nominations will be given equal value to the scores on the intelligence tests.

Step 3: it considers peer and parent nominations, creativity, and self- nominations. There is usually a screening committee in this step that interviews the selected students and administers other assessments as well.

Step 4: a list of students who have passed all of Steps 1–3 is given to all the teachers in the same school district. This gives teachers a “second chance” to consider students who might not have been chosen the first time due to bias or any other reason. This step also requires a screening committee who will interview the students nominated by the teachers during this second round.

Step 5: it requires the school to inform parents that their child has been nominated and placed in the “talent pool.” Once parents have been notified and informed of the identification procedures that have taken place, an orientation session for the parents is held explaining the gifted program, and a separate one is held for the selected gifted students.

Step 6: the final step, is called “the second safety valve” (Renzulli, 1990) (the first one being Step 4) and involves “action information” which, as explained by Renzulli, is the “dynamic interactions that occur when a student becomes extremely interested in or excited about a particular topic, area of study, idea, or event” (p. 16). A nomination that occurs in Step 6 is based on a careful review in order to realize if advanced services for a particular student are necessary. In this way, it is ensured that all the students are noticed (Renzulli, 1990).