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FACULTY OF SOCIAL AND HUMAN SCIENCES

<u>School of Education</u>

**Examining The Transferability Of The Educational Components Of A Successful American School For Accelerated Gifted Children To The Saudi Context**

BY

**JAWAHER HAMAD BIN YOUSEF**

Thesis for the degree of Doctor of Philosophy

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# UNIVERSITY OF SOUTHAMPTON

# ABSTRACT

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Acceleration is essential intervention for gifted students, as it allows them to reduce the time and effort required by learning at a faster pace than typical. Saudi Arabia has recently implemented a grade skipping policy for gifted students as part of the gifted provision options offered by the Ministry of Education. The Saudi policy allows gifted students in fourth grade (age ten) to move to the sixth grade (age twelve), and from the seventh grade (age thirteen) to the ninth grade (age fifteen). However, a clear policy for acceleration at tertiary level education was not included, so the fate of those accelerated students after school is still ambiguous. Currently, these measures do not meet global criteria or the Saudi Vision 2030 plan, which aims to provide educational opportunities no matter what the students' level, and improve the learning environment to stimulate creativity and innovation.

In order to meet global criteria and the needs of accelerated students in transition to university, this study aimed to explore the educational components of one successful American school for gifted students that has applied a university-based programme for accelerated students. This study questioned: What are the key educational components of a highly acclaimed American school specialising in accelerated programmes for gifted students? In addition, from the perspective of educational experts in Saudi Arabia, to what extent could these components be transferred and applied within the Saudi educational system?

This qualitative study was divided into two stages: Stage One was a case study conducted at a successful school in the USA, and Stage Two was conducted in Saudi Arabia. The study utilised three approaches to data collection: in the US, document analysis, semi-structured interviews with the seven US school staff, and observations; and in Saudi Arabia, semi-structured interviews with ten Saudi experts in the field of gifted education.

The findings revealed six main components required to establish an appropriate intervention for accelerated students, namely, educational setting, leadership and personnel, identification process, programmes, counselling services, and curriculum. Two of these components are transferable to the Saudi context and four are subject to conditions such as enhancing the policy of acceleration in Saudi Arabia. However, language, culture and competition between organisations are challenges that may affect the transferability of these components from one context to a totally different context. However, this study provided a model and recommendations that can fit with the Saudi educational system.

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# Acknowledgements

# Academic Thesis: Declaration of Authorship

I, Jawaher Hamad Bin Yousef, declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

Examining the transferability of the educational components of a successful American school for accelerated gifted children to the Saudi context.

I confirm that:

This work was done wholly or mainly while in candidature for a research degree at this University;

Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;

Where I have consulted the published work of others, this is always clearly attributed;

Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;

I have acknowledged all main sources of help;

Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;

Parts of this work have been published as conference papers presented on the following page:

Signed: _____

Date: _____

# Scholarly Activity

Bin Yousef, J., 2017. Early Entrance Program for Saudi Accelerated Students. In: The World Council for Gifted and Talented Children, *the 22ⁿᵈ Biennial World Conference: Global perspectives in gifted Education.* Sydney, Australia, 20-23 July 2017: WCGTC.

Bin Yousef, J., Kinchin, G., Grace, M., 2015. An Evaluation of the Provision for Gifted Pupils in Saudi Arabia: Identifying Next Steps to Inform Change and Development. In: World Council for Gifted and Talented Children, *The 21st Biennial World Conference of - Turning Research Into Practice*. Odense, Denmark, 10-14 August 2015: WCGTC.

Bin Yousef, J., 2015. A study of the organisations and provision for the gifted in Saudi Arabia: The perspectives of key leaders. In: the Saudi Cultural Bureau, *the Conference for the Saudi Scholarship Students.* London, United Kingdom, February 2015.

Bin Yousef, J., 2014. Efficiency of organisations for the gifted provision in the Kingdom of Saudi Arabia. MA. University of Southampton.

# 1. Chapter One: Introduction

This chapter presents the rationale for this study. First, I provide some background and an overview of the educational provision for gifted and talented learners in Saudi Arabia in order to give the readers an understanding of the current situation regarding the context of this study. I then discuss my personal motivation for exploring the concept of schools for accelerated gifted students. This is followed by a presentation of the aims, objectives, and research questions that form the basis of this study. I address the significance of the study, and conclude with an overview of the structure of this thesis.

## 1.1 Rationale of the study

The aspirations of nations toward achieving leadership in innovation and contemporary problem solving may be realised through the extent of gifted support and care (Persson, 2009). However, provision of learning for gifted and talented students typically varies from one culture to another depending on the culture's values, norms, and ethics, as 'what is valued and viewed as gifted in one culture may not be considered gifted in another culture' (Ford et al., 2005, p. 97). Thus, providing appropriate educational services for gifted students might depend on the society's evaluation of 'gifts', which may therefore affect their definition of 'giftedness'.

There is a disparity among developed countries in the way in which they educate gifted and talented students. For example, but not limited to this country, Scandinavian countries rely on multiple intelligence approaches in their curricula, and cater for their children through inclusive classes. In Finland, the legislation does not explicitly mention gifted individuals, but it can be inferred from practice that the Finnish follow a multi-dimensional definition. What is more, they allow for acceleration, as children can enter school early and can advance their studies within a fixed school schedule (Heuser, Wang & Shahid, 2017). However, in Japan, they build their learning philosophy on 'egalitarianism' and any special treatment would be seen as an unfair preference and a desecration of this egalitarianism. As a result, the Japanese system does not allow acceleration practices in their school system (Freeman, 2002; Heuser, Wang & Shahid, 2017). In contrast, the USA and China have large numbers of special programmes for gifted students, and permit acceleration practices in the form of grade skipping and enrolment in universities at an earlier age compared to peers. Freeman (2002) explains it thus:

All American states had enacted legislation and had policies in place, and in most cases these were mandatory. Most states have now established offices or bureaux for gifted education with full-time directors and funding provided by the states at various levels (p.15).

In short, American 'gifted education had been finally legitimised and institutionalised' (Passow, 1993, p. 36). In the United Kingdom, policies encourage schools to consider the variety of gifts. However, pull-out programmes and groups streamed by ability are applied in the UK; additionally, some schools employ acceleration in the form of providing accelerated content (Heuser, Wang & Shahid, 2017). In Germany, gifted provision tends to rely on several kinds of provision, such as special schools, special classes, special curricula, and extra-curricular activities. In addition, gifted individuals are monitored and receive appropriate counselling from the relevant institution (Freeman, 2002).

As these examples indicate, even across developed countries there is much disagreement as to which form of gifted provision is appropriate for achieving excellence (Freeman, 2002). Plucker and Callahan (2014) point out that the lack of research into gifted practice has left the field with considerable ambiguity regarding the efficiency of programmes. However, there were a variety of programme options available in developed countries. As the setting for this thesis, Saudi Arabia provides limited gifted services, offers enrichment programmes, operates a 'pull-out strategy' (pulling gifted students out from the regular classroom to study in a resource room), and advanced curricula in some private schools as their provision for gifted students. Furthermore, gifted students are also encouraged through the availability of desirable awards through the National Olympiad for Scientific Creativity in Saudi Arabia (Aljughaiman & Grigorenko, 2013; Al-makhalid, 2012; Bin Yousef, 2014; Qarni, 2010; Mawhiba, 2016).

In 2014, the Saudi Ministry of Education (MOE) released a new acceleration policy as the first step towards applying acceleration programmes for high ability students (see appendix 10). This policy allows gifted students in the fourth grade (age ten) to move to the sixth grade (age twelve), and from the seventh grade (age thirteen) to the ninth grade (age fifteen), the tenth stage is not yet implemented, as revealed by a member of the Central Committee of Acceleration. In addition, the MOE announced the existence of a committee that would act on acceleration issues (MOE, 2016). This is despite the fact that Saudi students are not ready for higher education; a great deal of research has shown that Saudi students have been found to be particularly lacking in highly demanding skills required for tertiary academic programmes. As a result, many fail and end up

quitting in the first year (Khoshaim, 2017). Furthermore, the Ministry has not announced any special intervention and/or counselling plans for accelerated gifted students, so the fate of those accelerated students after finishing school is still ambiguous. In addition, the link between school and university for those accelerated students is not clear.

Indeed, transitioning to university is considered a critical problem for gifted students, since a difficult transition to university may lead to underachievement and possibly withdrawal from university. In addition, gifted students who excel at high school are not guaranteed to reach such high achievement at university (Sayler et al., 2015). Mendaglio (2013) has referred to the lack of literature on gifted education in higher education, and argues that a successful transition from school to university is essential for the academic achievement of gifted students. Furthermore, he claims that unsuccessful transition from school to university could lead to a negative effect on the academic experience of gifted students. Therefore, one solution would be to put a special intervention in place to prepare accelerated students for university life and it might also help them to become more engaged in university.

Given the above, and in addition to the lack of research into special schools for accelerated gifted students in Saudi Arabia, I believe that the time has come to establish and implement an intervention (possibly in the form of special schools) for accelerated students to smooth their transition to university in order to meet their needs and ensure that there is a sequence of support services between the school and university, as well as following the global standards in gifted provision.

## 1.2 Brief background of provision for gifted and talented students in Saudi Arabia

The Saudi government has undertaken much effort to reform education, both in general and in gifted education, also known as Gifted and Talented Education (GATE), in particular, by establishing a number of national projects and initiatives. For example, the King Abdullah bin Abdul-Aziz Project for the Development of Public Education (Tatweer Initiative) is one of the leading projects that seeks to reform and enhance educational outcomes. It aims to give students the required skills to contribute effectively towards sustainable development (Tatweer, 2015; Meemar, 2014). Despite these efforts, gifted education in Saudi Arabia faces numerous challenges, particularly in terms of the lack of various types of support. Saudi literature on gifted education

reveals a number of deficiencies within both administrative and academic areas (Alamer, 2013; Aljughaiman & Grigorenko, 2013; Bin Yousef, 2014; Qarni, 2010).

Another major challenge facing the principal authorities that support gifted education in Saudi Arabia, namely the Ministry of Education and the King Abdul-Aziz and his Companions' Foundation for Giftedness and Creativity (Mawhiba), is the ambiguity surrounding the definition of gifted children (Muammar, 2006). Nevertheless, gifted education in Saudi Arabia is facing numerous administrative obstacles, relating to institutions, schools, staff, curricula, and policies (Algefari, 2010). Therefore, numerous studies have called for improvements in gifted education in Saudi Arabia, in terms of more special programmes that offer diversity in education, including enrichment programmes and the provision of resource rooms for a distinct learning environment that meet the needs of gifted students (e.g. Alamer, 2014; Al Arfaj, 2011; Alqefari, 2010; Qarni, 2010); details about the Saudi context are found in chapter two.

## 1.2.1 Impact of attending special schools

Special schools are an educational intervention that was originally conceived to foster innovation (Siegel-Hawley & Frankenberg, 2012). Special schools are set up to focus on a specific area, such as science, mathematics, technology, and/or performance art. The aim of special schools is to meet the learning needs of gifted students (Borland et al., 2000; Schroth, 2008; Stanley, 1991), where the students 'need to work together in flexibly grouped settings to maximise all aspects of their talent development process' (Klimis & VanTassel-Baska, 2014, p. 174). Normally, the special school is located on a university campus, and offers gifted students an accelerated and extensive curriculum. Usually, these schools are funded by the relevant government but some schools receive funds from external sources such as donations or grants (Jones et al., 2002; Rapp, 2008).

Special schools focus on hiring individuals with expertise and advanced knowledge in specific disciplines. Schools often require that faculty staff hold a high academic degree, whether it be a master's or doctorate. The advanced academic qualities are set out as the first characteristic in Renzulli's (1992) list of gifted teachers' competences. In addition, the literature revealed that the gifted teachers have to be expert in the subject they teach in order to facilitate the learning process, provide the gifted students with the basic knowledge in the subject, and lift the quality of instruction (see Rosemarin, 2014). Yet holding a high academic degree does not necessarily mean

that the possessor of such a qualification will be able to present the knowledge in an efficient and understandable way to gifted students, unless they have developed appropriate content knowledge and pedagogical content knowledge. However, besides having high academic qualities, teachers who teach gifted students have to possess essential knowledge of how gifted students learn, and be able to employ knowledge and expertise to solve real-life problems (Renzulli, 1992), thus meeting the required teaching criteria such as those suggested by NAGC (2000). In relation to this argument, Hoth et al. (2017) analysed, in a longitudinal study, the knowledge of mathematics teachers who were responsible for identifying and supporting gifted students. They found that teachers with deficiencies in content knowledge also had deficiencies in supporting gifted students, were not able to identify the differentiation required for those gifted students in the classroom, and had difficulties in further developing mathematically rich answers by students. Teachers with strong professional knowledge were able to identify and support gifted students.

Some schools require teaching experience or at least a teaching licence. In addition, jobs in these schools can be full time or part time. The part time faculty normally have a full-time job at a local institution or university. Some schools have a visiting instructor programme where the instructor comes to the campus for a specific task at a specific time (Rapp, 2008).

Special schools offer students the full opportunity to meet their needs in learning, exploring, and interacting with their intellectual peers. Students can conduct significant research in a collegiate ambience (Rapp, 2008). Gallagher (1994) confirmed that these schools offer the following:

Some change, or school adaptation, that allows these students to interact with each other, to be challenged by material at their developmental level and to acquire skills useful in independent learning (Gallagher, 1994; p.87).

Therefore, gifted students who attend special schools perform better than those gifted who do not, and gain social and emotional benefits (see Hertzog & Chung, 2015; Janos et al., 1989; Olszewski-Kubilius, 1995; Sayler, 2015; Schroth, 2008; Stanley, 1991).

Qualitative studies have provided descriptive evidence of the type of experiences that special schools can provide. As an example, an ethnographic study by Coleman (2005), who spent a year at a school special in mathematics, science, and technology, found that the lives of gifted students changed after being enrolled in a special school, where they were better at tackling new

ideas in a rigorous and diverse atmosphere (Coleman, 2005). Thus, special schools contribute to enhancing student achievement and increasing educational diversity (Bifulco et al., 2009; Siegel-Hawley & Frankenberg, 2012).

Allocating special schools for gifted and talented students is considered by some to be an educational intervention originally conceived to foster innovation and integration in many leading countries. Magnet schools in the USA integrate minorities in education (see Frankenberg & Siegel-Hawley, 2011), and contribute to increased educational diversity and enhanced student achievement (Bifulco, Cobb & Bell, 2009; Frankenberg & Siegel-Hawley, 2011). Blazer (2012) revealed that transferring gifted students to a special school allows such students to improve their academic performance and develop their attitudes and behaviours, and that developed countries have sought to improve special schools in the field of gifted education. Of relevance to this thesis, during the late 1970s, state-funded special schools in the United States were supplied with trained staff, provided with additional recruitment allowances, and had specific admission criteria (Goldring & Smrekar, 2000; Steel & Levine, 1994). The US approach of providing special schools for gifted students is thought to be a model for the establishment of such schools in developing countries (Zhang, 2009). One such developing country already mentioned is Saudi Arabia, which is determined to improve its education provision through projects such as the Tatweer Initiative, the aim of which is to improve education generally in the country. As well as the Tatweer Initiative, there have been other attempts and ad hoc efforts to establish special schools for gifted students. Despite the individual efforts from hardworking school principals in the Ministry of Education (MOE), so far no official, general special school for gifted students, let alone school for accelerated students, exists in Saudi Arabia. To establish a special school for gifted students, several requirements need to be met: policies need to be devised, suitably qualified staff need to be recruited and leadership appointed, curricula need to be constructed (US Department of Education, 2008a).

The US practice is the foremost and the longest-standing example of gifted education practice (Plucker & Callahan, 2014). The US practice developed in several stages, starting after World War II when scholars such as Guilford and Witty revised the theories of intelligence, as a response to the shock of the Russian achievement of Sputnik in 1957. This led to the launch of more gifted programmes in the USA in order to compete with Russian achievements; accordingly,

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the Javist Act (1995) funded more organisations and programmes (Freeman, 2002). Therefore, US practice offers a good example for those countries aiming to establish standards, whether in developing or western countries (Freeman, 2002):

'By visiting New York, Chicago, or San Diego, it has been possible to see most of the viable models for gifted education in operation, allowing practitioners to make reasonable judgments about what works in practice' (VanTassel-Baska, 2010, p. 25).

In addition, US research output has achieved global dominance, and has attracted scholars to investigate the US paradigm due to the general standing and volume of US studies and practices (Persson, 2012). VanTassel-Baska (2010) stated this:

> Urban programs can offer important models of successful practice that have been operative across decades for gifted students, to be modified for current populations of learners in our schools. These models represent the best principles and practices of the field: the judicious use of acceleration; the employment of appropriate types of enrichment (p. 26).

What is more, VanTassel-Baska (2013) reported thus:

> The United States has been the source of many models and theories about giftedness, many of them have not been tested in the research arena, even in the originating countries. Thus, it is difficult to think about effective replication of the model in a very different context (p. 7).

She added that the 'organisational models of effectiveness and efficiency at the classroom and school level ... are worthy of deeper study to ensure that the context for innovation is in place to run successful gifted programs and classroom practices' (p. 10).

All the above factors led to the maturity of the US practice and experience that prompted Saudi Arabia to follow the NAGC's (the National Association for Gifted Children) standards for gifted provision, and therefore, given the situation regarding giftedness provision in the USA, I decided to follow the US practice in modelling special intervention for accelerated students as closely as possible.

## 1.3    Research argument

The current services provided by the principal bodies for gifted provision in Saudi Arabia are, according to some, not sufficient and do not meet the global criteria for gifted and talented education (Aljughaiman & Grigorenko, 2013). The Ministry of Education recently approved grade skipping for gifted students, in addition to a pull-out approach for gifted students who attend regular school during the day. Gifted students are pulled out of regular classes for a specific period of time to gain enrichment in the resources room. The teacher who is hired to work with gifted students (MOE named them Gifted Specialist/Gifted Teacher) prepares a compressed curriculum (a strategy involving compressing the content in one or two modules) for subjects such as Arabic Font or Dictation in order for the gifted students to have free time to enrol in the pull-out enrichment programme. In addition, the Ministry of Education provides summer enrichment programmes in major Saudi cities, including Riyadh, Jeddah, Dammam, Yanbu, Makkah, and Abha.

In addition to their summer enrichment programmes, Mawhiba offers a school partnership initiative, which provides advanced curricula in some private schools. These private schools receive the nominated gifted students regardless of the appropriateness of the school location or the cultural and socio-economic background of the students involved. The major problems that I witnessed when I was working with the main bodies involved were the limited services on offer and the location of the schools, which were too far from students' homes for daily attendance, along with the difference between the socio-economic backgrounds of the gifted students and the other children attending the private schools. Furthermore, the programmes provided by the principal bodies do not take into account individual differences or the specific needs of gifted students. From experience, the learning and teaching approaches used on these programmes were quite similar to the teaching and learning techniques employed during ordinary classes, with the main difference being the amount of content covered.

As mentioned above, the MOE has approved the use of an acceleration strategy in its school (grade skipping only), and to date, more than 120 students from all over Saudi Arabia have been permitted to skip grades (see appendix 11). However, the fate of accelerated students after graduation from high school is ambiguous. Indeed, faculty members of staff at universities are often unaware of gifted students' academic, social, and emotional needs at university level

(Muratori & Smith, 2015). This is highlighted by research into academically talented undergraduates in the USA by Rinn and Plucker (2004), who call for more research targeted towards gifted students at the college level, early entrance programmes, and counselling issues. In light of what has been mentioned, the development of special interventions (in the form of schools) for the accelerated gifted who transfer to university would provide advantages that help gifted students to achieve higher levels of performance (Feldhusen, 2005).

As reported in many national newspapers, Saudi Arabia intends to establish schools and academies for gifted students in order to develop their performance in science and mathematics (Alwatan, 2014). It was not clear which grades these schools would serve, so I investigated this in order to understand the reality of the situation regarding gifted schools in Saudi Arabia. On 1 July 2014, I telephoned the relevant bodies responsible for gifted regulations. I called the General Directorate for Gifted Care at the MOE and I asked them if they had established any intervention (in the form of special schools) for accelerated or non-accelerated gifted students, and they mentioned that they aim to collaborate with one Saudi university to study this issue; however, the project documents are confidential. Furthermore, the Director of the Gifted Centre for Girls in the Eastern Region denied establishing any special schools for gifted girls or boys. She mentioned that the MOE requested their opinion about having special schools for gifted students, but she did not mention the grade levels. The city of Jeddah has one school for gifted students, which is the result of a one-off effort by a hardworking principal, as revealed by one supervisor from the Western Region Gifted Centre. In contrast, I contacted the Director of Gifted Centre for Girls in Riyadh and she confirmed that they had approved twelve schools to be assigned as gifted special schools. Accordingly, I contacted one of the twelve schools and the administrative secretary said that they were a nominated gifted special school; however, they had not received any clear policy, a student name list, or special curricula. Furthermore, they deliver the standard Ministry curricula to non-gifted students. However, the participants repeatedly mentioned the need for a clearer identification policy, advanced curriculum, advanced environment, and a qualified team, which led me to decide to pay attention to these components, and I investigated them further in this study. From the above, it would seem that the MOE have taken the first steps to establishing special schools for gifted students. However, so far, these projects have not been implemented and the delay may be

attributed to a shortage in the infrastructure required for gifted centres, as mentioned in Alqefari (2010) and Bin Yousef (2014).

Al-Zoubi and Bani Abdel Rahman (2016) conducted a study to measure the level of satisfaction of gifted students regarding the performance of Saudi centres that provide special services in the Najran district. The study revealed that gifted students were highly satisfied with the teachers and administration. However, they were only moderately satisfied with the enrichment activities, student relationship facilities, equipment, and teaching methods. The findings of this study are similar to Bin Yousef's (2014) findings, which indicated that the infrastructure in Riyadh was limited and needed improvement in terms of financial allocation, programme diversity, administration, and policy updates.

With respect to the above, it is evident that interventions for the gifted are scarce and insufficient, and do not reach all students throughout Saudi Arabia. Moreover, the quality of teacher training, school environment and curriculum are inappropriate for the gifted, and the outcomes of the gifted provision are not aligned with the Saudi government's vision for human development (Saudi Vision 2030, 2016). Therefore, there is a need to improve the situation for gifted students in the Kingdom through development and diversification in provision.

## 1.4   Personal motivation

As the author of this study, I obtained my general education degrees from public (state) schools in Riyadh in Saudi Arabia. At school, I sometimes achieved a distinction, although most of my school grades were a merit. As an elementary graduate in the 1980s (ten years after the beginning of Saudi provision for the gifted), I had a gift for drawing and writing stories, yet throughout my school years, my talents were not encouraged. This neglect of my talents I believe was due to several factors. Firstly, religious beliefs about art and artists were a significant impediment to receiving any support for my talents. Secondly, the school radio and broadcast system was limited to specific talents such as singing Islamic chants and intonations of the Holy Quran. Lastly, the teaching focus at that time was on core subjects such as reading, mathematics, and science. These subjects were deemed the most important content in the educational process, whereas developing individual capacities was not considered a priority by the school leadership. Supporting and encouraging

talent was limited to that between classmates and there were only rare acknowledgements from hardworking teachers.

My own school experience has prompted me to pay close attention to gifted and talented education. After receiving my bachelor's degree in Special Education, with a major in Giftedness and Talent Education, from King Saud University, I received a one-year qualification programme in Giftedness Alumni Rehabilitation from Princess Norah Bint Abdurrahman University in Riyadh under the tutelage of Dr Abdullah Aljughaiman. I then spent more than eight years working with the main authorities that serve gifted students in Saudi Arabia. However, at that time, none of these bodies had allocated special schools for gifted students; gifted students could only attend ordinary schools that were supplied with distinctive curricula. I worked as a gifted education specialist in the Ministry of Education in Riyadh, where I designed several enrichment programmes for gifted students, managed the resources room in the school, conducted IQ tests, and conducted gifted enrichment classes. Subsequently, I moved to work at King Abdul-Aziz and His Companions' Foundation for Giftedness and Creativity (Mawhiba) as a supervisor of the domestic enrichment summer programmes. Following this, I worked as a coordinator for the Young Leaders Initiative. I attended several workshops in the field of gifted and talented education held by both domestic and international institutions, such as a training course on designing enrichment programmes hosted by the Centre for Talented Youth (CTY) held at the Johns Hopkins University in Baltimore, USA.

This background has shaped my vision for gifted education in Saudi Arabia and has prompted me to continue my studies in this field. I gained my master's degree in Educational Leadership and Management from Southampton University, United Kingdom. My master's dissertation explored the efficiency of the provision for gifted students in a particular region of the Kingdom of Saudi Arabia. Using a qualitative approach, I conducted semi-structured interviews with five key leaders working in the principal education bodies that provide services for the gifted and talented. The study revealed that the provision of gifted services in Saudi Arabia suffers from shortages: the services do not reach all cities, staff who are working for those bodies need further training, and there is limited coordination between the relevant bodies, which has impeded the services. This further causes delay in delivering suitable services to the beneficiaries. The following aspects in particular need attention: community awareness of giftedness, financial allocation, updated policies and regulations, and workforce training.

These findings have directed me to the idea of maximising the intervention for the gifted in the form of special schools in the main cities in Saudi Arabia. These kinds of schools might address the current position in Saudi Arabia; they would have services that would be decentralised from the main bodies, be operated by qualified staff, have updated policies, their own financial model, and be able to identify the gifted through their own policy. Currently, there are no dedicated schools for the gifted and talented in Saudi Arabia. A special school study could pave the way for developments and an increase in attainment for students in Saudi Arabia compared with that of developed countries.

## 1.5    Aims of the study

The aims of this study are first, to understand and explore the components of one successful special school based in the USA, and to serve to accelerate gifted students in terms of the following: educational setting, identification policy, leadership, staff qualifications, curriculum, and programmes. These components might help the Saudi educational system in establishing new interventions for current accelerated students that so far have reached 120 in number (see appendix 11). Second, to explore the potential of the component's transferability to the Saudi context in order to meet accelerated students' needs, and ensure that there is a sequence of support services between the school and university, as well as following the global standards in gifted provision.

## 1.6    Research objectives and questions

This study sought to select a highly acclaimed school in the USA for its special accelerated programme for gifted students to fulfil the following objectives:

- To explore the key educational components of one particular American special school, that includes acceleration, which contribute to its success.
- To understand the Saudi context in terms of its potential to adopt a new intervention for accelerated gifted students.

In order to achieve these objectives, this study will address the following research questions (RQs):

RQ1. What are the key educational components of a highly acclaimed American school specialising in accelerated programmes for gifted students?

RQ2. From the perspective of educational experts in Saudi, to what extent could these components be transferred and applied within the Saudi educational system?

In order to achieve an answer to these questions, I decided to visit one highly acclaimed school in the USA and apply a case study approach in order to understand the phenomena in its real situation by interviewing a number of the school staff, observing the teaching and other educational activities available, and gathering relevant available documents. The justifications and explanations of the nominated school are discussed in chapter four. After visiting the school and drawing a conclusion from the visit, I moved to the other stage of the research, which was conducted in Saudi Arabia. I interviewed Saudi experts in giftedness to understand the extent to which the components used by the US school could be transferred to the Saudi educational system.

Both the measurement of and determination whether a school is 'successful' are difficult tasks. Studies on this topic have conceptualised and measured factors involved differently, and have tended to use different analytical methods. These differences mean that research in the field of school success is not cumulative in its body of knowledge (Reynolds et al., 2014). However, Teddlie and Reynolds (2000) developed certain compositions of school 'successfulness' that are valid across different contexts, specifically: effective leadership; focus upon learning outcomes and maximised learning time; positive school culture; high expectations of students and staff; monitoring of the school, classrooms, and students' progress; parents' involvement; generation of effective teaching strategies; professional development of staff; and involvement of students in the educational process through taking more rights and responsibilities.

In research on this subject, assessment of student achievement is the principal criterion used to measure school effectiveness. However, other factors that could be involved in a successful school include the following: non-cognitive factors e.g. students' well-being, and academic self-concept, students' motivation, school quality e.g. the results of the school compared with other schools, and equity (the compensatory power of schools) (ibid). In addition, the size of the school's effects is important, whether small or great. Schools tend to have a greater effect on students' achievement (see Martin et al., 2011) and perhaps in one area of the curriculum such as mathematics or science, whereas the effectiveness of a school could be considered small for non-

cognitive outcomes. Small effects can be cumulative and can refer to a large number of students (Reynolds et al., 2014). However, school successfulness in one domain (e.g. reading or mathematics) is largely dependent on its successfulness in other domains, such as whether it has a friendly atmosphere, good home-school relationship, and so on (see Teddlie & Stringfield, 1993). Furthermore, other criteria playing a major role in determining whether a school is successful need to be taken into account. These include the following: consistency when measuring the correlation between school effectiveness and its outcomes; stability when measuring school effectiveness during different short periods of time, as the school is a changing organisation; and student gender, ethnicity and socioeconomic status (see Reynolds et al., 2014).

The successfulness of the US School was evident in its application of an acceleration strategy. The following aspects framed the concept of success for the US school: a smooth transition of the accelerated students to university life, supportive counselling programs that meet the students' social and emotional needs, and a strong emphasis upon promoting independence once they transfer to the university (see section 4.5.1 4.5.1 The current system of identification at the US school recorded few cases of student withdrawal. In terms of outcomes, longitudinal studies found that students were satisfied with the acceleration decision and their professional achievement, and graduated with high GPAs (Grade Point Averages). The school's students had productive lives, whether through employment, income, or degree attainment (see section 4.5.1 for more details). In addition, the US school revealed in their publications that both current and former students had earned awards from international or local companies or academic institutions, such as the Google Endowed Scholarship, Microsoft Endowed Scholarship, and State Opportunity Scholarship for STEM.

All these aspects could be useful indicators for the Saudi proposed school that could potentially be a successful school. However, and given the author's point of view, adopting global indicators must be a fully conscious decision and reflect Saudi values and goals in order to achieve success outcomes that satisfy the relevant Saudi authorities and organisations within its society. The Saudi proposed school would have to adopt and create indicators that reflect the extent of the school impact on the Saudi socio-economic aspect such as the students' earning potential, graduation with high GPAs, and publication in journals of high reputation. Eventually the Saudi

proposed school would have to positively affect national level development in Saudi Arabia and parallel the current Saudi Vision 2030.

## 1.7    Significance of the study

This study might add further contributions to Stanley's pillars of the special school (Stanley, 1991; 2004; 2005); these pillars include identification policies, personnel, programmes, and facilities. In addition, this study will consider Renzulli and Reis's Schoolwide Enrichment Model (1997) that looks at a school's comprehensive improvement across the main pillars of the school, including school structure, organisational components, and service delivery components. This consideration might lead to further contributions to the components that a special school may have. An employment of Clark and Zimmerman's (2002) recommendations in applying programmes in different contexts may also lead to further understanding the transferability of the educational components from one context to another totally different context.

Methodologically, this study adopts a rare method, examining one intervention from one context, to another extremely different context. This examination might help other researchers or even other countries when looking towards adopting different interventions from other (Western) contexts. It might help stakeholders in transnational education (TNE) in many countries, including the Middle East, to understand the transition process of educational programme components (Benahnia, 2015). Empirically, this study could also illuminate the complexities of the process of policy borrowing and implementation between different contexts, as this process involves layers of structures, actors, and powers (Perry & Tor, 2008) that can influence the development of the expansion in cross-national educational practices (Winstanley, 2012).

Through the above steps, this study might contribute towards Saudi Arabia as a developing country, in terms of the adaptation of a new intervention for accelerated gifted students from the USA as a developed country. It is my hope that this study might contribute to understanding the process of instituting provision for gifted education, whether for Saudi Arabia or for other countries where there is sufficient financial allocation for gifted provision, as well as those who may follow the example of Saudi Arabia in the field of gifted education. Adopting the concept of allocating a special intervention for accelerated gifted students might potentially increase the number of enrichment hours for gifted students, which may help the country enhance the performance of

gifted students in specific disciplines. In addition, adopting a new concept of education in Saudi Arabia, based on an innovative model of gifted education provision, may contribute to solving some of the national education-related problems.

This study could help Saudi policymakers within the Ministry of Education to draw conclusions through an evidence-based approach, as policy borrowing from different contexts might be considered significant for ministers constructing educational policy (Winstanley, 2012). The sources of comparison are 'indicative of a highly expedient and opportunistic enterprise, which serves as a facade to legitimate a set of policy actions intended to promote a differentiated and competitive school system' (Morris, 2012, p.104-5, cited in Winstanley, 2012).

This study also attempts to deliberately understand educational borrowing and lending practices in policy, norms, and ideology (Perry & Tor, 2008). The study might also contribute to identifying gaps in gifted education where innovative interventions might be applied. Furthermore, it might help to identify the current potential of existing Saudi schools such as the possibility of current schools converting to special schools for gifted students, the portability of the system's efficiency, the legislation for moving students between schools, and the internal system within the centres in the Saudi regions as well as within the schools.

Understanding the educational setting of other contexts might help the new Saudi Vision 2030, as the Vision plans to provide educational opportunities for all students, improve the learning environment to stimulate creativity and innovation, and increase international investment in the education sector (Saudi Vision 2030, 2016). Facing public pressure to enhance their performance, the Saudi Ministry of Education received 80 billion Saudi riyals (equivalent to £14 billion) from the Saudi government to improve education outcomes (Reuters, 2014). This study may help policymakers deal with the current challenges by adopting a more innovative school system for the most able. It is clear that this is an appropriate time to make some significant changes in this particular area.

Finally, this innovation in gifted education in Saudi Arabia may encourage Saudi entrepreneurs in the education sector to adopt the new intervention of gifted and talented schools, which may increase work opportunities and business in Saudi Arabia.

## 1.8    Organisation of the thesis

This thesis is organised as follows: chapter two is dedicated to providing an overview of the context of this study. It reviews the educational system in Saudi Arabia in general, and gifted education in particular. It includes an overview of the education system in Saudi Arabia with an emphasis on the educational levels and special education. The fourth section in this chapter presents gifted provision in Saudi Arabia, followed by a description of the development stages of gifted provision in Saudi Arabia. An explanation of the main bodies responsible for gifted provisions in Saudi Arabia is included along with a description of the General Directorate for Gifted Care and King Abdul-Aziz and his Companions' Foundation for Giftedness and Creativity (Mawhiba). Gifted provision in higher education in Saudi Arabia is also discussed.

Chapter three reviews the literature on giftedness and focuses on an assortment of issues, namely, definitions of giftedness, broadening the concept of giftedness, identification methods and scales of gifted students, followed by total talent development approach, gifted provision options including acceleration, enrichment programmes, and ability grouping. Afterwards, a description and explanation of the types of special schools is provided in appendix 13.

Chapter four provides a description of the methodology employed in order to collect the data. This includes research designs and methods. Sample selection and data collection instruments' development and procedure are presented. This is followed by the analysis process, trustworthiness, relaiability, triangulation, and generalisation, closing with ethical issues and a summary of the study.

Chapter five offers a qualitative data analysis, and includes findings of Stage One, followed by the transformation stage to the Saudi context, a set of principles, and a discussion of how the interview questions derived from the emerged principles for Stage Two. This chapter closes with an analysis of Stage Two data.

Chapter six discusses the key findings and answers to the relevant research questions. Chapter seven offers an overall conclusion that includes the contributions to knowledge and educational implications and recommendations for future research.

## 1.9 Summary

This study was designed to explore and understand a part of the American practice in acceleration by exploring the educational components of a special school that applies acceleration, in order to examine the potential transferability to the Saudi context through the perspectives of the experts in the field of gifted education in Saudi Arabia. The study included two stages: the first stage conducted a case study in one of the US schools. The second stage was conducted in Saudi Arabia whereby I adopted a qualitative approach in order to understand the relevant phenomena in its context. This chapter presents the rationale for this study, its background, and an overview of the educational provisions for gifted and talented learners in Saudi Arabia. The personal motivations are presented, followed by a presentation of the aims, objectives, and research questions that form the basis of this study, and it concludes with an overview of the structure of the thesis.

# 2. Chapter Two: Background of Education in Saudi Arabia

## 2.1 Introduction

This chapter contextualises education in Saudi Arabia and traces how an interest in gifted education has developed. The chapter starts with an overview of the Saudi state to present the readers with the political, economic, and cultural situation in Saudi Arabia. It then outlines the history of the establishment of education in the Kingdom, followed by an explanation of the Saudi education system. This chapter closes with an account of provision for gifted students in Saudi Arabia, the development of this provision, the main bodies that support education for the gifted, and the provision for gifted students in higher education.

## 2.2 Saudi Arabia: overview

The Kingdom of Saudi Arabia was unified in 1932 by Abdul-Aziz bin Abdul Rahman al Saud. It is the birthplace of Islam and the home of the two holy mosques in Mecca and Medina. Iraq and Jordan border Saudi Arabia in the north, Kuwait in the north-east, and Qatar, the United Arab Emirates and Bahrain in the east, the latter being linked to Saudi Arabia by the King Fahd Causeway located in the Arabian Gulf. In the south-east, Saudi Arabia is bordered by Oman, in the south by Yemen, and in the west by the Red Sea. Saudi Arabia is about one-fifth the area of the United States. The latest population count for the Saudi Arabia is thirty million, and forty-six per cent of the population is under the age of twenty-four (OPEC, 2015; US Central Intelligence Agency, 2014). Muslims make up about ninety per cent of Saudi citizens. The Arabic language and Islamic religion are the basic pillars of Saudi society, and these form the basis of the Saudi general education curriculum.

Saudi Arabia has an oil-based economy and plays a major role in OPEC (Organisation of the Petroleum Exporting Countries). Saudi Arabia is the largest exporter of oil and owns sixteen per cent of the proven oil reserves in the world (OPEC, 2015). However, Saudi Arabia has intentions to decrease the reliance on the oil economy, and has set a plan in this regard (Saudi Vision 2030, 2016). The Saudi government has worked to modernise the Kingdom through a series of economic initiatives, by increasing the role of the private sector in the economy, attracting foreign investors, and discouraging traders and companies from employing foreign workers. Social initiatives have

received considerable attention from the Saudi government as well, through employment opportunities for women, reducing unemployment, and building affordable housing (US Central Intelligence Agency, 2014). Therefore, the hoped contributions of this study could align with the new orientations of Saudi Arabia.

## 2.3 Brief history of education in Saudi Arabia

General education was established with just four schools in 1926 after the creation of the Education Directorate. Then, in 1928, the decision was taken to set up the first education system in Saudi Arabia, and the number of schools was increased to 323, spread across the entire Kingdom. In 1952, the Ministry of Education was created as an extension to and development of the Directorate of Education; it was assigned to the planning and supervision of public (state) education for boys at three stages: primary, intermediate, and secondary. In 1960 during the reign of King Faisal bin Abdul-Aziz Al Saud, the General Presidency for Girls' Education was established with a budget of 4.4 million Saudi Riyal (SR), and fifteen elementary schools and one institute for female teacher training were set up (MOE, 2014). In 2011, the General Presidency for Girls' Education was integrated with the Ministry of Education and the Ministry took over its functions of the General Presidency for Girls' Education and managing the girls' schools and university, as well as administering kindergarten schools (Al-shabi, 2013; MOE, 2014).

## 2.4 Education system in Saudi Arabia

Education in Saudi Arabia seeks to ground students in Islamic values and to equip them with the required skills and knowledge to become active members of the community. The Ministry of Education is the main authority that oversees and manages general education in Saudi Arabia. The Ministry is responsible for providing the following types of education: pre-school, elementary, intermediate, secondary, undergraduate, postgraduate, special education, adult education, and literacy (UNESCO, 2010). The following sections explain some of these types of education in order to give the reader a holistic view of the general education offered.

### 2.4.1 Pre-school level

Pre-school is provided for children aged from two to six years old. It is not an official stage of education and attendance is not compulsory. Pre-school is also not a prerequisite for primary level. The educational objectives at this level are to provide children with values and basic skills in order to prepare them for the next level (primary). Key objectives at the pre-school level include teaching children fundamental skills, imaginative thinking, and looking after their moral and physical development. Some of the institutions at this stage are based on the Montessori system. Recently, a decision was made to incorporate nurseries into all public (state) schools (MOE, 2014; UNESCO, 2010). See table 2.1 for the latest statistics.

### 2.4.2 Primary level

Primary level is the first compulsory stage in the Saudi education system. The entry age is seven years old. The primary stage contains six grades, divided into two sections: the lower grades are from first to third, and the higher grades from fourth to sixth. The pupils at primary level learn basic skills, numeracy, and culture. They also study religion, mathematics, fine art, history, geography, civic duties, and Arabic (Al-shabi, 2013; MOE, 2014; UNESCO, 2010). See table 2.1 for the latest statistics.

### 2.4.3 Intermediate level

The intermediate level consists of three grades, from seventh to ninth. Pupil ages range from thirteen to fifteen years old. The system at this level allows pupils to attend either during the regular school day, during evening sessions, or even just for the final exams at the end of the school year. The modules at this level go into greater depth and are broader than at previous levels; they include religious studies, science, mathematics, fine art, history, geography, Arabic, and English. Table 2.1 shows the latest statistics from the MOE (Al-shabi, 2013; MOE, 2014).

### 2.4.4 Secondary level

Secondary level is the final level of general education. It consists of three years from grade ten to grade twelve. Pupils are aged from sixteen to eighteen years old. Students study a common curriculum at grade ten, then they choose from particular pathways of study. Boys choose from religious studies and Arabic; administrative and social sciences; natural sciences; and applied (technological) sciences. In contrast, girls choose between a scientific track and a literature track. The science track contains modules in mathematics, science, physics, biology, chemistry, English, Arabic and Islamic education. The modules in the literature and religion tracks include Islamic education, history, geography, psychology, sociology, and literature studies (Al-shabi 2013; MOE, 2014; UNESCO, 2010). See table 2.1 for the latest statistics.

Table 2.1 Summary of statistical data on education from the Ministry of Education in Saudi Arabia. Source: Website of the Ministry of Education. [Online]. Available at: https://www.moe.gov.sa/ar/Pages/StatisticalInformation.aspx [Accessed 31/08/2017].

| Grade | Teachers | Students | Classes | Schools |
|---|---|---|---|---|
| Pre-school | 23,644 | 260,726 | 15,520 | 2,920 |
| Primary | 262,230 | 2,847,809 | 144,386 | 15,579 |
| Intermediate | 129,802 | 1,343,103 | 55,722 | 9,528 |
| Secondary | 125,881 | 1,278,393 | 51,029 | 6,790 |
| Illiteracy | 1,601 | 58,941 | 5,659 | 2,132 |
| Total | 543,158 | 5,788,972 | 272,316 | 36,949 |

### 2.4.5 Special education

The special education system, for disabled students, is equivalent to the general education system in terms of levels, but it involves services provided to special needs students, both boys and girls, who are mentally, physically, visually, or hearing impaired. The latest Ministry statistics show the total number of special education schools for students with the number of special needs students at 2,290, while the number of classes is 7,127, and the number of students is 28,005 (Al-Mousa, 2010; MOE, 2014).

## 2.5 Gifted education in Saudi Arabia

Saudi Arabia has, like other countries, regarded nurturing their gifted students as a form of investment in the future. The interest in gifted provision started in 1970, when the Ministry of Education produced a policy document that included regulations for gifted provisions (Document

for the General Policy of Education in Kingdom of Saudi Arabia). The document stipulated the following:

> It is very important to discover and identify the gifted learners among all Saudi young children and youth, nurture them by all means to unveil their potential, and pay extra attention and efforts to provide them with special programmes and appropriate opportunities that can be integrated easily into the country's public educational system (Rule 57) (MOE, 2014; UNESCO, 2010).

Therefore, it is evident from this ruling that the MOE prefer a real model that can be easily integrated into the Saudi system, suggesting the choice of using a successful school in the USA as a model to fill the gaps in the existing system in Saudi Arabia.

As a result, in 1990, the Ministry of Education, together with King Abdul-Aziz City for Science and Technology, took action towards applying this policy, establishing the Initiative for Identification and Detection of Gifted Students. The initiative had a number of aims: to identify gifted students and prepare enrichment programmes for them; to raise awareness in the community about issues related to talents and giftedness; and to identify and recognise efforts supporting the gifted in schools and other institutions (MOE, 2014). By clarifying this aim to provide for gifted students in Saudi Arabia, many significant actions have been undertaken to promote the nurturing of the gifted (MOE, 2014; Mawhiba 2016), and the following section explains the development of gifted nurture in Saudi Arabia.

## 2.6    Stages in the development of gifted provision in Saudi Arabia

Interest in gifted provision in Saudi Arabia developed in four stages. The first stage started in 1991 when the Ministry of Education and the King Abdul-Aziz City for Science and Technology conducted a survey to identify gifted students in public schools. One of the significant outcomes of this identification project was the preparation and standardisation of intelligence scales. In addition, the identification project created two enrichment programmes in science and mathematics as a first phase of the enrichment programme.

In stage two, immediately after the survey for gifted detection, the Ministry of Education initiated the identification project in boys' public schools and provided the facilities to run it.

In stage three, steps were taken towards the establishment of a national association for the gifted. The Saudi government felt it appropriate to establish a foundation bearing the name of King Abdul-Aziz and his Companions to recognise the role played by King Abdul-Aziz in gifted education. In addition, this coincided with the one-hundredth anniversary of the founding of the Kingdom of Saudi Arabia. The actual beginning of gifted provision in Saudi Arabia was in 1999, when King Abdul-Aziz and his Companions Foundation for Giftedness and Creativity was established.

In stage four, the ministry created a special department for gifted affairs by establishing the General Directorate for Gifted Care, which then became the formal source in the ministry that dealt with gifted provision. However, in 2006 the Ministry of Education made a decision to divide the General Directorate into two: one for gifted boys and the other for gifted girls (see Al Garni, 2012; Qarni, 2010; Aljughaiman & Ayoub, 2012; Al-makhalid, 2012; Bin Yousef, 2014).

## 2.7    Main bodies responsible for gifted provision in Saudi Arabia

There are two main government bodies that officially serve gifted students in Saudi Arabia. First, the General Directorate for Gifted Care, which follows the Ministry of Education administratively, and the second is King Abdul-Aziz and his Companions' Foundation for Giftedness and Creativity (Mawhiba), which is an independent body established as a result of research and recommendations by academic experts from many government agencies in order to serve gifted students in Saudi Arabia. The following section presents the role and internal departments that are involved in gifted provision in Saudi Arabia.

### 2.7.1 General Directorate for Gifted Care

The General Directorate for Gifted Care provides comprehensive educational facilities for gifted students in Saudi Arabia. The detection and identification of gifted students is one of the main tasks assigned to this directorate in collaboration with the National Centre for Measurement and Assessment (Qiyas). In addition, it plans research and improvement in the field of gifted education, whether by the ministry or by provincial departments in specific regions. It is also responsible for training the personnel who work with gifted students, and for coordinating the relevant authorities in the field of gifted and talented education in order to maintain a database of gifted students, the relevant organisations, universities, and experts in the field. Furthermore, the General Directorate

for Gifted Care offers resources for gifted programmes such as supplies and technical equipment, and contributes to raising community awareness of the significance of giftedness and talents. Lastly, the General Directorate is responsible for allocating an annual financial budget for educational services (MOE, 2014). The General Directorate comprises three main units (figure 2.1). Firstly, the **Detection Unit**, which identifies gifted students, utilising several methods in order to enrol them in the enrichment programmes, for example by measuring children's actual ability using special tools such as the Wexler scale and Stanford Binet (see chapter three), which measures intelligence quotients. In this unit, they are responsible for providing an appropriate educational environment for the gifted students to promote their growth and psychological development. Secondly, the **Care and Programmes Unit,** which supervises the progress of the enrichment programmes in order to monitor quality and to meet the needs of gifted students. This unit is responsible for helping public schools to design and implement suitable educational interventions for gifted students, such as enrichment programmes, and skills and capabilities development programmes. The unit is also in charge of hiring specialists and teachers, by participating in the preparation and control of the nomination process and by conducting interviews. Thirdly, the **Studies and Development Unit,** which trains personnel in order to supply qualified teachers. Other tasks include the analysis of the current situation and formulation of appropriate plans that cover a broad area, including the training and rehabilitation of personnel to work with gifted students and the evaluation of the progress of the services. It also seeks to enhance the performance of the other units in order to provide an encouraging environment that enables the abilities of talented students to develop and for these students to thrive (MOE, 2014).
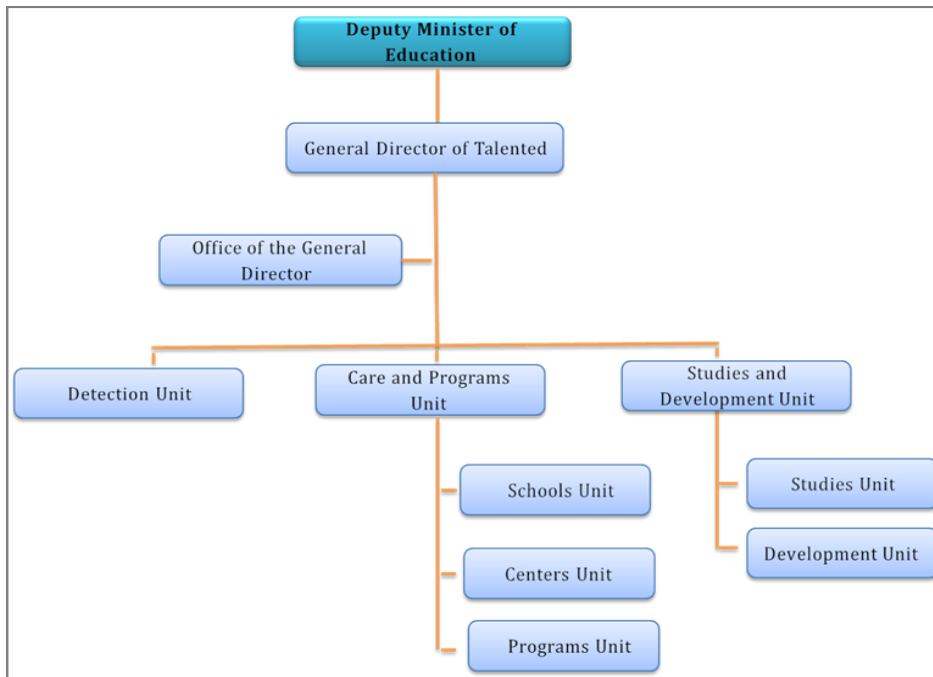
Figure 2.1 Organisational structure of the General Department for Gifted Students Care. Source: Bin Yousef (2014).

### 2.7.2 King Abdul-Aziz and his Companions' Foundation for Giftedness and Creativity (Mawhiba)

The King Abdul-Aziz Foundation is an independent, not-for-profit, national cultural foundation that is presided over by the Custodian of the Two Holy Mosques. King Fahd bin Abdul-Aziz Al Saud announced its founding in 1999 and ordered the High Decision Number (A/109) approving the establishment of Mawhiba. The Foundation seeks to develop, build, and provide an environment of creativity and giftedness in order to maintain prosperity and sustainable development in the Kingdom of Saudi Arabia. Mawhiba aims to identify and encourage gifted and creative individuals (male and female) in order to support gifted citizens. In addition, the organisation's aims are to locate pioneers of creativity and giftedness in science and technology. Furthermore, Mawhiba attempts to provide financial and in-kind support to programmes and centres for the gifted, and offers scholarships for gifted and creative individuals to enable them to develop their talents and abilities. The organisation has its own awards in different areas of giftedness and creativity, besides preparing programmes, research, and scientific studies. Mawhiba's main initiatives can be divided into the areas discussed in the next sections.

### 2.7.2.1 Partnership with Schools Initiative

The partnership initiative involves distinguished schools and includes the following services: selection and nomination of students; curriculum set-up and design, which has led to the development of a curriculum specifically for children with gifted capabilities; the training of teachers and principals in order to deliver distinguished curricula; the selection of schools, that is to say, the targeting of a number of private schools with distinct qualifications for the curriculum, teaching approaches, and assessment methods, to raise student achievement; and parental support, which involves encouraging parents to participate in relevant activities**.**

### 2.7.2.2 Enrichment Programmes Initiative

This initiative contains three main programmes. Firstly, **summer programmes,** which are offered across the Kingdom and include particular scientific activities with the aim of developing students' cognitive, social, and mental skills. Secondly, **after-school programmes** which develop the students' personalities and their abilities in light of the needs and priorities of community development**.** Lastly, **competitions and prizes**, with this programme divided into the following sections: the National Olympiad for Scientific Creativity, the International Olympiad competitions, and 'The Makers of a Generation of Talent and Creativity'.

### 2.7.2.3 Youth Leadership Initiative

This initiative includes the following sections: scholarships, apprenticeships, and skills building programmes. This initiative seeks to equip young people with leadership skills, and emphasises creativity. It has also built an excellent leadership programme at university level, choosing the most promising potential leaders from all undergraduates across the Saudi universities. It then connects these potential leaders with areas commensurate with their preferences and experience. Lastly, it also seeks to raise awareness of the importance of leadership skills and their impact on the business community. (This initiative has recently integrated with the enrichment programmes).

### 2.7.2.4 Awareness and Communication Initiative

This initiative seeks to raise awareness and build a culture of social and institutional talent and creativity in the Kingdom. It aims to build effective bridges of communication and productive cooperation with the media, based on culture and faith. This initiative aims to establish an appreciation of talent and creativity in the community and to bring together the institutions that support creativity.

Since the acceleration policy was released (mentioned in chapters one and three), none of the organisations above have been assigned a specific department or unit for acceleration affairs, despite the fact that the number of accelerated students could increase in the coming years, and the MOE still charges the acceleration committee members for undertaking daily work duties. Simultaneously, the higher education institutions pay little attention to gifted provision. The following sections present the reality of gifted provision in higher education that is also focused on enrichment and innovation, with an absence of the application of acceleration programmes and meeting the social and emotional needs of accelerated students.

## 2.8    Gifted provision in higher education in Saudi Arabia

This section discusses and critiques three of the institutions that operate programmes for gifted undergraduate students as an example of the situation and the status of gifted provision in Saudi universities. However, it is worth stating that other institutions not mentioned here, such as Jeddah University and King Khalid University, advocate and make a valuable contribution towards giftedness.

### 2.8.1 The National Research Centre for Giftedness and Creativity at King Faisal University (KFU)

King Faisal University claimed that this centre was the first of its kind at national and Arab levels. Its aim is to provide a research platform to achieve excellence and originality in research into the field of gifted and talented education, by connecting with other relevant research institutions both locally and internationally. The purpose of the centre is to contribute to cultural and scientific developments, which back the efforts of competent authorities in the field to support the gifted and talented. The centre also encourages further scientific research and authorship in the field of

giftedness and talent. Furthermore, it contributes to the development of local institutions concerned with creativity, and offers consulting services for individuals and researchers. In addition, it trains faculty members in how to integrate thinking skills into the curriculum. The centre also seeks to build academic programmes to develop rules and regulations for the care of talented students in higher education institutions, and to build a system of quality assurance and accreditation programmes for the education of the gifted in educational institutions. The main achievement of this centre is in building cooperation between prestigious institutions in the field of giftedness. An example of this is the Standardised Aurora Battery, which is one of the largest research projects of the National Research Centre for Giftedness and Creativity, which has been conducted in collaboration with Yale University (USA), Tufts University (USA), and Durham University (UK) (KFU, 2015).

### 2.8.2 Innovation Centre in King Saud University

Established in 2007 under the supervision of the Vice-President for Knowledge Exchange and Technology Transfer, the centre's mission is to encourage creators to contribute to the community by transforming innovative ideas and inventions into products with economic value. Aimed at fostering the creativity of both undergraduate and postgraduate students, as well as faculty members at King Saud University, the centre seeks to elevate the university into the ranks of leading universities, regionally and globally, in areas of creativity and innovation. The Innovation Centre advances the desired objectives by working as a liaison between students and faculty members with outstanding ideas and companies, and by providing the scientific assistance and resources necessary to support the new concepts and innovative ideas.

The Innovation Centre began by establishing competitions to encourage and honour innovators from both inside and outside the university. To benefit from the experiences of others in the field of developing and marketing innovations, the centre then began to communicate with scientific associations and universities, and signed cooperation agreements in the field of innovation with institutions such as the University of California, Berkeley. The centre has established a website portal to share their ideas with the wider society and is working on supporting and developing the ideas of others. Subsequently, the centre founded the Innovation Club on more

than 300 square metres of land, equipped with up-to-the-minute facilities to serve more than 5,000 students inside and outside the university. The centre has attracted scholars from around the world to compete in international innovation competitions. To facilitate the communications process, the centre has provided special forums of innovation in order to enable innovators to present their ideas and their research and join the database. The centre also aims to promote innovation in the university community, encourage university students to present their ideas and turn them into innovations with economic value, spread the culture of innovation, and communicate with faculty staff members, students, and the wider community. Lastly, the centre endeavours to create a culture of entrepreneurship among the faculty and students of King Saud University, working within the university system to achieve excellence in innovation (KSU, 2015).

### 2.8.3 Giftedness, Creativity, and Excellence Deanship at the Islamic University of Imam Muhammad bin Saud

The Deanship was created to keep pace with progress in the field of gifted and talented education. It aims to achieve high-quality research, and to provide education and counselling in the field of giftedness and creativity. By providing distinct programmes and projects for discovering and nurturing talent, it aims to accelerate the transition to a knowledge society. The remit of the Deanship extends to the identification of talented students, then nurturing and encouraging them, as well as monitoring them throughout the school year. The Deanship aims to remove any obstacles that stand in their way, without damaging their social affiliations or beliefs, and provides material and moral incentives for gifted students to contribute to the building of their society. It runs two main activities. Firstly, the Creative Students Forum for the Arab States Universities, which encourages research and scientific, artistic, and cultural projects for university students of the Arab States. Students produce projects that are presented to the Forum and judged by the jury, who choose the winning projects. Secondly, the Scientific Forum for students of the Islamic University of Imam Muhammad bin Saud seeks to spread a culture of students' active participation in the preparation and publication of scientific research, and to create a favourable scientific research environment for students (bachelors, masters, doctoral, etc.), to create fair competition among colleagues, and to encourage inventors and entrepreneurs (Imam, 2015).

To conclude this chapter, Saudi Arabia has spent considerable effort on gifted education, whether in the form of programmes, advanced curricula within specific schools, or innovation awards in general education or higher education. However, there is no clear coordination between the relevant authorities, whether in gifted identification or policy integration, and while Saudi universities mention their cooperation with international parties on their websites, they fail to mention the cooperation or partnership at the local level. Updating gifted policy to include acceleration practices, training school personnel who are involved in acceleration application, and assessing acceleration application and its efficiency may have to be done by the relevant departments at universities in Saudi Arabia.

These departments at Saudi universities have mentioned their collaborations with the international organisations, as mentioned above; however, none of these collaborations have targeted simulating practices, neither in enrichment nor acceleration application. That makes this study an opportunity to link Saudi institutions for higher education with international practices in the field of gifted and talented education, by adopting new intervention from schools experienced in acceleration application. However, in Saudi Arabia there has been a lack of effort towards acceleration procedures, which are considered the main provision method for gifted students. Chapter three examines the benefits of acceleration, looking at the impact of this method on gifted students socially, emotionally and academically. In summary, this research may fill the gap in acceleration literature in general education and in higher education in Saudi Arabia.

## 2.9   Summary

This chapter provided an overview of the educational system in Saudi Arabia in general, and gifted education in particular. It additionally provided an overview of the educational levels and special education. Gifted provision and the stages of the development for gifted provision in Saudi Arabia were also presented. This was followed by an explanation of the main bodies that are responsible for providing gifted provision in Saudi Arabia, including a description of the General Directorate for Gifted Care and King Abdul-Aziz and his Companions' Foundation for Giftedness and Creativity (Mawhiba). Lastly, examples of gifted provision in higher education in Saudi Arabia were also discussed.

# 3. Chapter Three: Literature Review

## 3.1 Introduction

This chapter reviews the relevant international literature on giftedness. It focuses on the various theories that have built the field of gifted education (Plucker & Callahan, 2014), and includes empirical studies relevant to the research questions and the subsequent analysis. It also evaluates the strengths and limitations of the literature that have been tested in different contexts. This chapter is divided into a number of sections, namely, definitions of giftedness, identification methods and scales for gifted students, total talent development approach, gifted provision types, including an acceleration section that presents the situation of acceleration in Saudi Arabia and Early Entrance Program (EEP), enrichment programmes, and ability grouping. In addition, appendix 13 includes a description and explanation of the types of special schools, including Magnet schools, charter schools, and school within a school.

## 3.2 Definitions of giftedness

There is a long-standing debate among theorists, from within and outside the field of giftedness, on the nature of the giftedness and whether it can be attributed to genetics or to the environment. However, the ultimate goal of such debates is to identify and nurture the gifts to increase individual capacities (Dai, 2005). The literature has revealed distinct groups of argument on how to elucidate these human traits. Some of the theorists such as Terman (1926) defend the view that giftedness is an inherent potential and can be measured using intelligence tests. Others see giftedness as an achievement and performance, downplay the role of non-intellectual abilities, and consider creativity as part of the end product instead of part of the process (Stanley, 1991). Some, including Renzulli (1978) and Sternberg (1985), stress the role of creativity in conceptualising giftedness, and emphasise the need to teach creativity-based skills. Others place talent within a developmental context that includes external factors such as the environment, (Gagné, 1985; Kaufman & Sternberg, 2008). Generally, the views of theorists have formalised the historical pillars and components of giftedness (Mönks & Katzko, 2005). However, these theorists have dogmatic views, as they ignore or denigrate others' views and promote a particular perspective; consequently, made the field of gifted education with no practical programme development inadequately grounded in

theory and research (Ambrose, Sternberg & Sriraman, 2012). This section will outline the development of definitions of giftedness, from definitions using a single dimension to those using multiple dimensions. It includes the theories that have dominated the field of gifted education for the last two decades.

### 3.2.1 Historical perspective of the foundation of giftedness

The origins of gifted education can be traced back to the fields of heredity and genetics. In 1865, Francis Galton, the English pioneer of gifted theories, is regarded as the first person to use the term 'giftedness'. Galton was influenced by the evolutionary theory (the origin of species) of his first cousin, Charles Darwin. Galton's main interest was in the different degree of mental ability and eminence (reputation) from one person to another. Galton concluded that reaching a high degree of eminence required an individual to possess high abilities, which guaranteed eminence for the individual (Jolly, 2005a; Jolly, 2005b; Jolly, 2008; Resnick & Schantz, 2015).

Forty years after Galton's conclusion, Alfred Binet, the French psychologist, became the first scholar to develop a series of tests to classify children according to their intelligence. The Stanford-Binet intelligence test was developed at Stanford University and published in 1916. This instrument of intelligence 'allowed for a degree of intelligence to be established, allocating a definitive number to Galton's original idea of varying levels of intelligence distributed across the population' (Jolly, 2005a, p.16).

In the USA, Lewis Terman (1926) revised the Stanford-Binet intelligence test. He defined giftedness as a characteristic of those students in the top one per cent of the general intelligence ability score. However, Terman realised that doing a further test to examine the validation of the Stanford-Binet scale could enhance the educational treatment of gifted students (Jolly, 2008). According to Jolly (2008), Terman suggested that the use of an intelligence instrument could go far beyond just a classification, and could provide important information on the behaviour of intelligence. In spite of the foundational work of Terman in defining giftedness, there is much criticism regarding his views on giftedness. Specifically, some have argued that he restricted his judgment of giftedness to the IQ test (Intelligence Quotient) and ignored important factors that affect intelligence such as leadership abilities, productive thinking, artistic, and athletic abilities (Litster & Roberts, 2011; Renzulli, 2004; Sternberg, 1985).

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In 1927, Leta Hollingworth argued that the field of gifted education was still primitive and insufficient to establish consistent terminology. Hollingworth provided the field of gifted education with definitions of gifted children as possessing several characteristics, such as being mature, responsible, wise, and having an excellent memory. She also provided the field with standards for intelligence qualification. On the Stanford-Binet IQ test, children with a score of 130 or higher were considered as gifted children by Hollingworth's standards. She concluded that, for every 100 children, there was just one who could reach a score of 130. This percentage is considered the foundation stone in the classification of gifted children (Jolly, 2005a; VanTassel-Baska, 2010).

After Terman's efforts to conceptualise giftedness relying on the IQ score, researchers called for a consideration of other abilities in defining giftedness, and avoided restricting the definition of giftedness to the IQ test score. Witty (1971) supposed that children with exceptional abilities in art, leadership, or writing could be considered gifted. Witty (1971) stressed that the definition of giftedness had to expand to include all children who had a valuable talent. Renzulli (1978) endorsed the view of Witty (1971) that IQ score alone was not sufficient to identify giftedness. However, the legacy of Terman and Hollingworth remains at the heart of a giftedness definition. Their theories continue to inform the field and emphasise multi-dimensional constructs, theories, definitions, and the impact of environmental influences on intelligence. Here, theories of giftedness began to change.

## 3.3   Broadening the concept of giftedness

Giftedness is a complex concept and there is no agreement between scholars in giftedness in terms of its definition. The complexity of the definition is attributed to its many dimensions as a multidimensional concept of multiple capacities (Fraser, Garcia, & Passow, 1995). The definition has been the major cause of many debates (Davis & Rimm, 1958; Gardner, 1983; Plucker & Callahan, 2014; Renzulli, 1978; Sternberg, 1986), where the concepts range from the capability and independence of gifted students to those who call for special care for gifted students. Davis and Rimm (2004) agreed that there is no one definition of giftedness that is globally accepted.

Marland's definition has influenced the gifted education field. The advisory committee led by commissioner Marland in the US (1971) suggested that giftedness could be measured in a multiplicity of ways that included objective and evaluative instruments. In addition, Marland

suggested that employment of a set of standards for the identification of the gifted and talented would involve at least three to five per cent of the school population (Marland, 1971). Marland's (1971) definition of gifted children remains a holistic and comprehensive conception and is the most widely accepted definition today (Davis & Rimm, 2004). The Marland Report stated the following:

> Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realise their contribution to self and society. Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination: General intellectual ability, Specific academic aptitude, Creative or productive thinking, Leadership ability, Visual and performing arts, Psychomotor ability (Marland, 1971, p. 8).

Marland's report could be considered the major shift in the definition of gifted children from a uni-dimensional definition relying on the IQ test to a multi-dimensional definition (Marland, 1971; p.9).

Use of the term 'outstanding' in Marland's definition does not specify clearly enough how far those who are gifted are from the average. Gagné (2008) stressed that a normative definition must specify how subjects differ from the norm. He included a metric-based system of thresholds for giftedness and talent definitions (see table 3.1). Nonetheless, a number of countries preferred Marland's definition and IQ test in order to identify their talent. For example, Hong Kong relied heavily on Marland's definition and IQ test (Ziegler & Philipson, 2012).

Table 3.1 Levels of giftedness and talent in the metric-based system (adopted from Gagné, 2008)

| Level of Giftedness | Fraction of Population | Frequency of Occurrence |
|---|---|---|
| Mildly | Top 10% | 1: 10 |
| Moderately | Top 1% | 1: 100 |
| Highly | Top 0.1% | 1: 1,000 |
| Exceptionally | Top 0.01% | 1:10,000 |
| Extremely | Top 0.001% | 1: 100,000 |

In Australia, Gross (2008) distinguished between gifted learners in their capabilities, whether in terms of time taken to solve problems, methods used in creating solutions, independence in working, and/or creativity. She classified giftedness according to IQ score and the proportion of its occurrence in the general population (see table 3.2).

Table 3.2 Levels of intellectual giftedness (Gross, 2008)

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

In the main, Gross agreed with Gagné (2008) in their categories; however, Gagné provided a generous choice of thresholds that were counterbalanced by the recognition of five progressively selective levels of giftedness or talent. He recommended that the disparity in giftedness and talent should guide the choice of intervention (Gagné, 2008). On the other hand, Renzulli (1978) integrated three variables or clusters of human traits that make up giftedness: above average ability, creativity, and task commitment, to describe gifted behaviour.

### 3.3.1 Three-rings concept

Renzulli (1978) introduced his concept of giftedness as the three-ring concept that can allow the individual to become gifted, based on their behaviour (see figure 3.1). According to Plucker & Callahan (2014), the three-ring concept was widely accepted and was the subject of many debates throughout the 1980s, where the work of Renzulli has been listed by the Social Science Citation Index as the most cited publication in the gifted field. Renzulli's three-rings concept allows gifted children to maximise their abilities and apply them to their performance (Litster & Roberts, 2011; Reis & Renzulli, 2010; Renzulli et al., 1992). The three-rings concept can be seen as less rigid than that of Terman and the formers' view of giftedness such as Hollingworth, because the three-rings concept allows more students to enrol in gifted programmes (Borland et al., 2000).

According to Gross (2008), the three-rings model was the most influential in Australia; however, critics of this theory were concerned. Renzulli considered 'task commitment' as a basic ingredient of giftedness, but this would exclude underachievers who do not display this amount of

commitment (Davis & Rimm, 1958; VanTassel-Baska, 1998). Nevertheless, none of this criticism was built on research and there was no definite evidence indicating the exclusion of underachievers. A mixed method study by Haight (2012) showed that, in the dispositional aspects of giftedness, 'task commitment' appeared to be important for gifted learners in disadvantaged contexts. In addition, Renzulli demonstrated in the early stages that the three-rings theory with enrichment activities could counteract underachievement (Renzulli, 1999). In addition, Renzulli (1999) admitted that he had not considered the background of the model in his research, that could lead to a new ring (the background two-toned 'houndstooth' represents the interaction between personality and environment). However, on the other hand, the uniqueness of this theory is the argument that nurturing gifted qualities is more important than merely identifying these qualities (Dai & Chen, 2013).
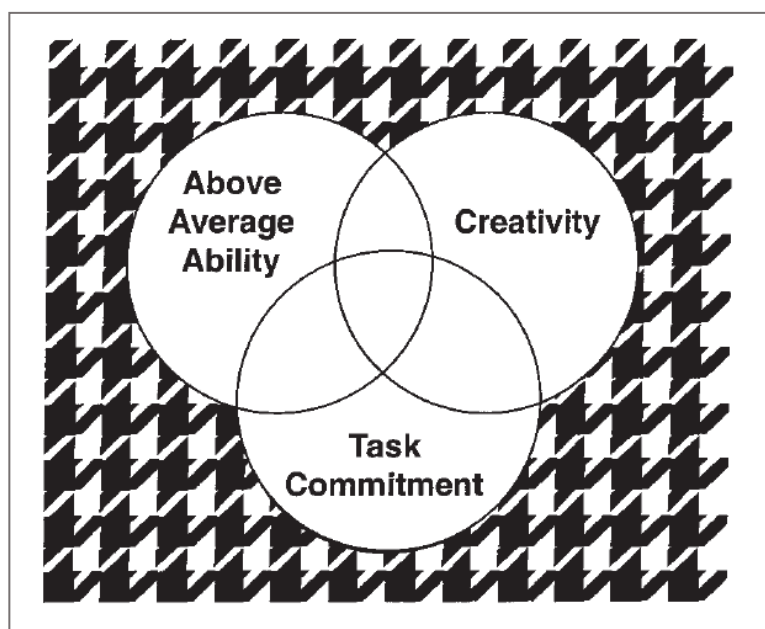


Figure 3.1 Three-ring concept of giftedness (Renzulli, 2012a, p.71).

### 3.3.2 Multiple Intelligences theory

Gardner (1983) added to the debate surrounding the conception of giftedness by formulating a classification of individual giftedness in his Multiple Intelligences theory (MI). MI differentiated intelligence into specific primarily intellectual 'modalities', rather than considering intelligence as consisting of a single general ability. Gardner introduced his theory with seven dimensions: (a) linguistic, (b) logical-mathematical, (c) musical, (d) spatial, (e) bodily kinaesthetic, (f) interpersonal, and (g) intrapersonal intelligence. Later, Gardner discussed adding more dimensions

to the MI theory, for instance, naturalist, spiritual, and existential intelligences (Tirri & Nokelainen, 2010; Walter & Gardner, 1984). Although the distinction between intelligences has been set out in detail, Gardner rebutted the idea of tagging learners to a particular intelligence. Gardner maintained that his theory of multiple intelligences should 'empower learners', not restrict them to one modality of learning (Walters & Gardner, 1984). However, the concept of multiple intelligence and abilities has received more support than the classic view of giftedness as a single ability. Specifically, Renzulli (2012b) endorsed Gardner's MI theory by broadening the concept of intelligence. However, intelligence is a wide and complicated concept for which no one definition is sufficient (Renzulli, 2012b).

Of relevance to the context of this thesis, Koura and Al-hebaishi (2014) investigated the MI theory in relation to achievement in the English language. The sample consisted of two groups: forty-two non-gifted girls and forty-two gifted girls from ninth grade in Saudi Arabia. The study applied the MI inventory in conjunction with an English language achievement test. The study revealed a significant correlation between achievement and MI in specific language skills. Indeed, many criticisms have been levelled toward the MI theory and its application. According to Waterhouse (2006), the MI theory relies on neuroscience phenomena and not on empirical findings, while the proponents of MI theory refer to the importance of years of accumulated experience to validate the theory.

Gardner described intelligence as a number of intelligences of which the individual can possess one or more. However, he did not elaborate on the distinction between intelligence that was inherited and skills that were acquired through the environment; Gardner and Moran (2006) attributed a person's skills to the operation of their intelligences. Furthermore, MI theory does not clarify how intelligence operates in a traditional teaching method, such as a centralised instructional method, because the theory requires action such as discussions, questioning, and conducting research. For example, in Turkey, Calik and Birgili (2013) noted that it was impossible to implement the MI theory because it would require considerable amounts of material that were not available to teachers in order to differentiate between students' intelligence needs. Therefore, the research in this thesis will not be based on the MI theory.

### 3.3.3 Triarchic theory

In 1985, Sternberg put forward his triarchic theory that the most gifted children were those who possessed potential in analytic, creative, and practical domains. Sternberg, as a leading researcher of human intelligence, was the first researcher who opposed the psychometric approach to giftedness and included more cognitive aspects (Sternberg, 1986). Sternberg's definition and other definitions such as Renzulli's three rings (1978) and other concepts of giftedness gained acceptance as gifted learners were identified by their abilities, rather than their IQ level. Sternberg's theory concentrated on the abilities possessed by the individual and discounted the environmental factors that formatted and stimulated these abilities.

Sternberg considered intelligence as a flexible and dynamic entity, developed through experience, consisting of a set of abilities that were needed to achieve high mastery in one domain or more (Sternberg, 1986). Renzulli endorsed this concept of intelligence that relies on developing experiences, and mentioned that creative behaviours are generated from one of the five forces of intelligence, which include knowledge, motivation, personality, thinking style, and environment (Renzulli et al., 1992; Renzulli, 2012a).

Sternberg (2004) argued that giftedness involves more than just high IQ, and has non-cognitive (e.g. motivationally driven) components as well as cognitive ones. However, environment is crucial in terms of whether potential for gifted performance will be realised, and giftedness is not a single entity: there are multiple forms of giftedness. Hence, one-size-fits-all assessments or programmes are likely to be too narrow. Measures for identifying or evaluating gifted individuals need to be proposed to operationalise theories, and then they need to be evaluated rather than merely being assumed to be valid (Sternberg, 2004).

In applying Sternberg's Triarchic theory, Saudi Arabia, Spain, Russia, and England standardised it through the Aurora Battery of tests (Tan et al., 2009). This battery is composed of a set of multiple models including group-administered maximal performance assessment, a parental rating scale, a teacher rating scale, and a self-report rating scale. Each model is structured on the same grid of abilities and domains. The battery measures abilities in the areas of analytical, creative, and practical thinking. The battery aims to provide a multifaceted view of the gifted intellectual profile as expressed through a range of abilities. In practice, Spain and Russia faced great difficulties in standardising this scale linguistically. In Russia, the administrative processes

proved more confusing than in other countries as the culture was emerging from a period of no testing. As for Saudi Arabia, its adaptations for its own cultural context will most likely be more extensive than for others (Tan et al., 2009), and educators working in the field of gifted nurturing in Saudi Arabia have criticised these traditional scales as being incapable of recognising the multifaceted nature of gifted intellectual abilities (Tan et al., 2009).

However, the weaknesses of the Aurora Battery were attributed to its inability to tap into the various aspects of giftedness that have been identified by modern concepts (Gagné, 1995; Gardner, 1999, Renzulli, 1978; Sternberg & Grigorenko, 2002). Tan et al. (2009) stated that the Aurora Battery never fulfilled the vision upheld by the main giftedness institutions. The weaknesses in this standardised scale may be one reason for the finding of Qarni (2010), where he evaluated Saudi provisions for the gifted in light of the NAGC standards and found a non-alignment of applications with the standards, specifically in the identification standards.

However, Sternberg (1991) identified MI theory as a system approach similar to his own Triarchic theory (Sternberg, 1986; Tirri & Nokelainen, 2010). Indeed, Sternberg's and Gardner's theories are similar to the extent that both consider hereditary abilities and ignore the role of the environment in shaping and promoting these abilities.

### 3.3.4 Differentiated Model of Giftedness and Talent DMGT

Gagné (1985) distinguished between possessed skills and inherited intelligence. He explained that 'giftedness' refers to untrained and spontaneously expressed natural abilities (called aptitudes), and 'talent' refers to the superior mastery of systematically developed abilities (or skills) and knowledge of human activity (see Gagné, 2000). Gagné (1993) classified giftedness into four areas of abilities, namely mental, emotional, creative, and social-emotional. He classified talents within five fields: academic, technological, relationships with others, art, and sports. Gagné (1993) claimed that giftedness matched above-average abilities, while talents matched above-average performance. He also assumed that the origin of giftedness is hereditary while the origin of talent is environmental. Further, gifts can be measured by standardised tests while talent can be seen on the ground.

Gagné (2004) developed a Differentiated Model of Giftedness and Talent DMGT (see figure 3.2):

[It] presents the talent development process (LP) as the transformation of outstanding natural abilities, or gifted (natural abilities), into outstanding systematically developed skills which define expertise, or talent (systematically developed skills) in a particular occupational field (Gagné, 2004; p. 119).

This transformation from natural ability to developed skill constitutes the heart of the DMGT. Gagné (2004) claimed that there are three catalysts that can help or hinder that transformation: first, intrapersonal catalysts, such as personal traits and self-management processes; second, environmental catalysts, such as socio-demographic factors and psychological influences; and third, having a chance (Gagné, 2004). Chance in the Gagné model plays a predominant role in the DMGT, where 'chance' includes both parental and genetic endowment that can affect natural abilities. Components of this model stress the impact of the personality and environment in the development of gifts (as natural abilities) into talents (as specific abilities) (Gagné, 2004; Tirri & Nokelainen, 2010).
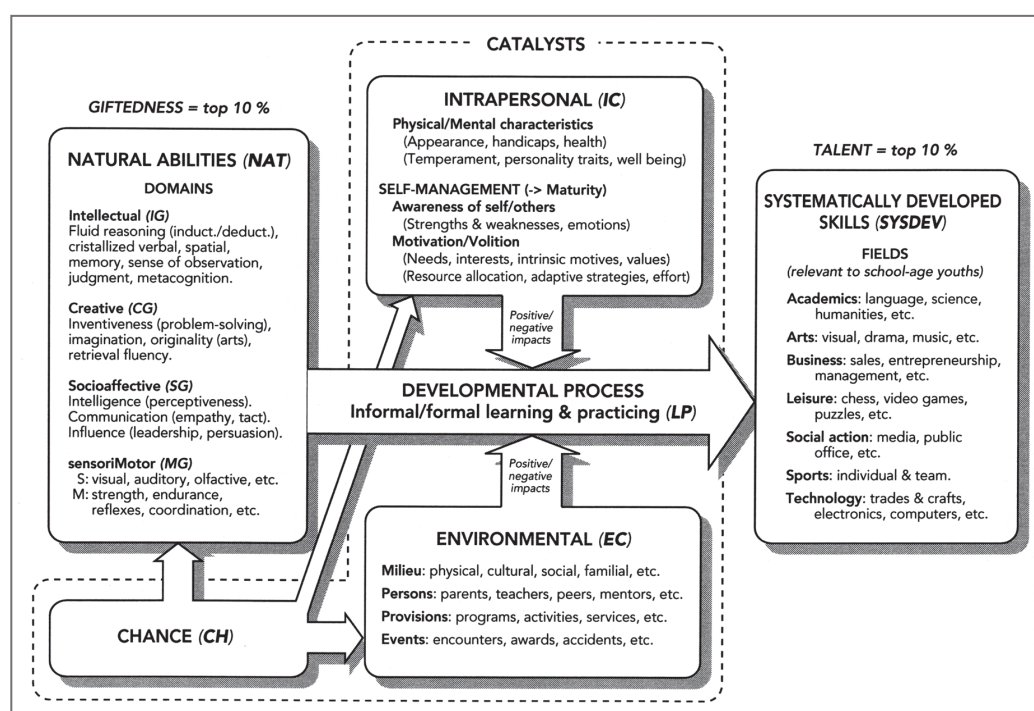


Figure 3.2 Gagné's Differentiated Model of Giftedness and Talent (Gagné, 2004; p.121)

Despite the fact that Gagné's model has been applied successfully in some contexts (e.g. New Zealand, Singapore), the model does not fit well with other contexts that suffer from underrepresentation in gifted programmes (Ho & Chong, 2010; Gagné, 2011; Vaipuna, Kupu & Rily, 2011). However, some deficiencies remain. Gagné (2011) argued that only high achievers can

be included in academic talent development programmes; therefore, this model indicates some inequity in talent development. Gagné's model failed identify those with hidden gifts and talents or those considered underachievers, i.e. those who have gifts but do not achieve their potential. Hence, the DMGT is considered by some to be a discriminatory model (Dracup, 2011). Despite the fact that Gagné updated his model (e.g., Gagné 1985, 1995, 2004), he made no attempt to include underachievers, so he did not provide a solution for the schools that adopted his model. As a result, researchers have tried to fill the gap in Gagné's model by proposing a new pathway for gifted underachievers and designing a model of identification and progression for all gifted children (see Wellisch & Brown, 2012). Gagné (2011) endorsed the broadening of the definition of giftedness in order to get rid of the inequity issue in his model. However, most definitions of giftedness and intelligence have focused on mental abilities with their relations and interactions, whereas underrepresentation in gifted education has been attributed to socioeconomic, socio-emotional, and cultural reasons (Freeman, 1992; Sternberg, 2007) and not for deficiencies in abilities. If this was the case, why do they classify these students as gifted? Therefore, broadening the definition of giftedness would not resolve the problem.

Gagné's model is accused of being deficient in the identification process (see Dracup, 2011; Wellisch & Brown, 2012), an issue from which Saudi Arabia has suffered (Qarni, 2010). Gagné stressed the importance of the occurrence of *the chance* in the natural abilities that may prove difficult to predict either spatially or temporally. In addition, *the chance* in the mental abilities phase will not make sense in the slow identification process in Saudi Arabia, currently overseen through collaboration between three national principal organisations (see section 3.4.3 ). In addition to the preference of the teachers in the nomination phase, identification in Saudi Arabia is heavily reliant on mental ability tests (Mawhiba test by Qiyas, see footnote, p. 186) that starts at third grade with a cost of 150 Saudi Riyal. It is not guaranteed that Saudi families can afford the fees of the Mawhiba test, especially after the austerity status that influences the individual's income, so the occurrence of *the chance* could be scarce in this case.

*The chance* in the developmental process phase in Gagné's model is conditional for those contexts which can tolerate the expenses of gifted provision. In another words, how can 'Gagné's chance' be created in disadvantaged contexts where there is little or no financial capacity to provide developmental practices for students?

In Saudi Arabia, there are several factors that would need to be considered in any attempt to adopt Gagné's model. These factors are first, increasing rates in population growth, as Saudi Arabia has been facing a population explosion since the 90s which is predicted to remain at about the same rate through the 2030s. In addition, in 2030 the Saudi government intends to increase the rate of the Gross Domestic Product (GDP) by relying on non-oil exports and small and medium-sized enterprises (Saudi Vision 2030, 2016); however, this reliance might not increase the rate of the Saudi GDP and then it could affect Saudi families' distinct learning opportunities (e.g. sending their children to private schools) (see Mensi et al., 2017; Raphaeli, 2003). Second, the economic strategies for confronting austerity could affect the financial flow for the educational sector, therefore, affect gifted provision. Third, the over-presentation of Saudi students from well-educated and affluent families in gifted programmes (Alqefari, 2010) means that, therefore, it could be difficult to adopt Gagné's model by failing to identify those with hidden gifts and talents or those considered underachievers. Therefore, using Gagné's model for the Saudi case will amplify misunderstandings of the identification process.

On the other hand, the Schoolwide Enrichment Model by Renzulli & Reis (1994) that Saudi Arabia has partially adopted in its enrichment model (see Aljughaiman, 2010) will help all students to have the chance to take part in enrichment opportunities, as Renzulli has downplayed the role of conventional intellectual abilities, suggesting less rigorous criteria for scores on standardised mental ability tests (Kaufman, & Sternberg, 2008). The SEM model includes the top fifteen to twenty per cent of any domain, which differs from the traditional view of giftedness in Saudi Arabia as comprising the top five per cent of gifted students on the Mawhiba test to be included in enrichment programmes and the top three per cent to be included in acceleration.

Gagné's model concentrates on distinguishing between gifted and talented, terms which are not an issue in Saudi Arabia as both terms are used interchangeably. SEM allows students to be nominated by their achievement in specific areas, not solely relying on official academic testing. In addition, Renzulli's concepts has found support from teachers whose instincts lead them to identify particular students as gifted despite them not necessarily scoring well on mental tests (Kaufman, & Sternberg, 2008). Therefore, it could help Saudi teachers in nominating gifted students who are not subjected to rigorous criteria.

### 3.3.5 Actiotope Model

In response to the need to include the environmental effect in the gifted conception, Ziegler from Germany and Phillipson from China (2012) constructed the Actiotope Model (Figure 3.3). They called for a paradigm shift in understanding giftedness. They argued that gifted education had relied on an erroneous view where existing theories no longer addressed the demand of the gifted field, and the gifted field needed to consider both cognitive factors (such as intelligence) and non-cognitive factors (such as motivation). Ziegler and Phillipson (2012) constructed a systematic theory of gifted education that included theoretical and practical alternative methods of educational support based on acceleration, enrichment ability grouping, and targeted financial support usually provided in the form of scholarships (p. 3). A number of supporters endorsed Ziegler and Phillipson (e.g. Dai & Chen, 2013; Gobet, 2012). In China, Zhang, Chen, and Shi (2012) constructed the Wisdom Tree Model as an echo of the Actiotope Model of Giftedness (AMG). Zhang, Chen and Shi (2012) claimed that the AMG was a successful approach that shed light on the obstacles facing gifted education around the world. However, according to Pang (2012), China had unsuccessful experiences with gifted programmes, where eight out of thirteen universities closed their gifted programmes, and up until now, only two programmes survived. The reason for closing their programmes was due to identification issues, teachers lacking expertise and deficiency in gifted policies. Therefore, and with respect to their efforts, it would be difficult to rely on this model.

Ziegler and Phillipson (2012) alleged that gifted education based on measurable components and the existing theories no longer addressed the demand. However, they based their argument on a study published by Kuhn in 1962, and on a meta-analysis by Wilson published in 1993. This evidence indicates that Ziegler and Phillipsons' conjecture was for journalistic and not scientific purposes. It would have been better if they had underpinned their argument with contemporary empirical studies; as it is, their argument showed unequivocally that they had not kept up with the facts in the gifted field. Indeed, Ziegler and Phillipson flipped the facts in order to introduce their Actiotope Model of Giftedness.
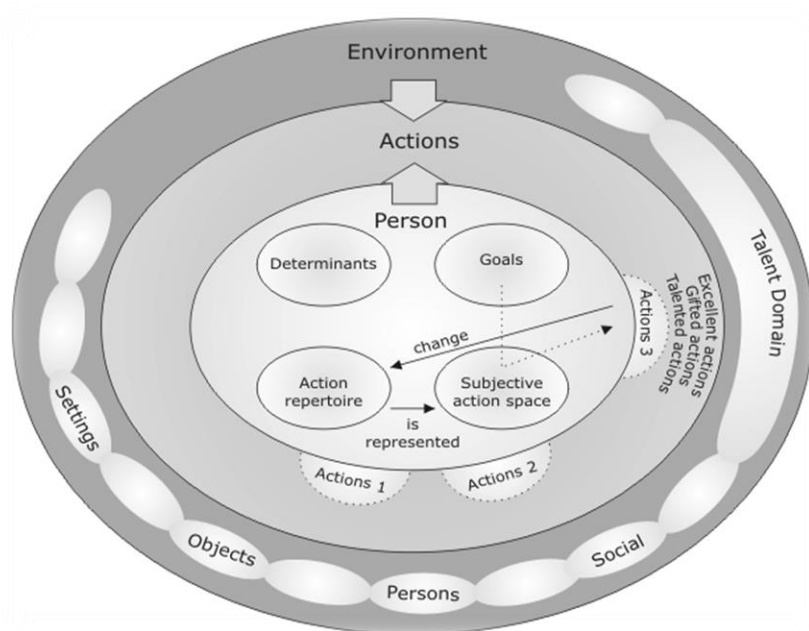
Figure 3.3 Actiotope Model of Giftedness (Ziegler, 2004; p.421)

### 3.3.6 Terms 'gifted' and 'talented'

Renzulli (1999) referred to the debate around the terms 'gifted' and 'talented' as a 'banal atrocity'

argument, although numerous terms are synonymous with 'gifted' in the literature, including 'high

ability', 'very able', 'creative', and 'accelerated'. However, the terms 'gifted' and 'talented' have

been used synonymously to define giftedness (Gagné, 2008). The term 'talent' finds a place in the

definition of giftedness. The advisory committee led by Marland in the USA (1971) put forward a

new definition of giftedness, which introduced the word 'talent':

> Many talented children under-achieve, performing far less than their intellectual potential
>
> might suggest. We are increasingly being stripped of the comfortable notion that a bright
>
> mind will make its own way. On the contrary, intellectual and creative talent cannot
>
> survive educational neglect and apathy (Marland, 1971, p. 9).

> The US Department of Education used the Federal Javits Gifted and Talented Education

Act definition to define gifted students:

> Children and youth with outstanding talent perform or show the potential for performing
>
> at remarkably high levels of accomplishment when compared with others of their age,
>
> experience, or environment. These children and youth exhibit high performance capability
>
> in intellectual, creative, and/or artistic areas, possess an unusual leadership capacity, or

excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavour (Ross, 1993, p. 15).

The US definition inserts the term 'talent' which is usually used to refer to natural abilities such as creative thinking, general intellectual ability, and/or visual art. The Saudi Ministry of Education defines gifted students as having the following:

Outstanding capabilities and abilities, and distinctive performance when compared with others of their age in one or more of the areas valued by the community, especially in the area of mental excellence, innovative thinking, academic achievement, and special abilities and skills. They need special educational interventions that may not ordinarily be provided by the school (MOE, 2016).

The Saudi definition has not mentioned the term 'talent' whereas the Saudi literature used the terms interchangeably. In this thesis, the terms 'gifted' and 'talented' will be used interchangeably to refer to gifted students in general.

To sum up this section, following from the previous presentation of these theories and concepts about giftedness, the concept of giftedness has undergone a number of changes over the last two decades (Horowitz, Subotnik, & Matthews, 2009). It has been developed from a simple concept that relies on an IQ score as a means of classifying and recognising giftedness, to the multifaceted concept that emphasises multiple abilities, creativity, and the impact of the environment and behaviour on the development and uses of these multiple dimensions to define individual capacity. To summarise the dialectical debate about giftedness, Sternberg and Zhang (1995) set out a comprehensive answer to the question: What is the nature of giftedness? These authors determined the criteria of giftedness that involves excellence, rarity, productivity, demonstrability, and value attached to the skills/products of the individual. Jackson (1993) called for the use of the techniques of mainstream psychological research to conceptualise giftedness. However, Plucker, Callahan and Tomchin (1996) claimed that 'measures of multiple intelligences appear, in general, to be reliable but not particularly valid' (Plucker, Callahan, & Tomchin, 1996).

This development in the definition of giftedness has provided an opportunity for gifted children, who can be selected based on these concepts in terms of differentiated learning and extra

activities. At the same time, the determination of giftedness has not provided an opportunity to those children who have been excluded. The remaining question about giftedness, for those who are classifying and labelling children with such names, is this: What does it mean to be gifted?

## 3.4    Identification methods and scales for gifted students

In 1958, approximately 200 educators and interested researchers gathered in New York City at the National Education Association (NEA) conference to discuss the education of the most able students. The conference recommendations stressed that the educational institutions should be the first ones to identify the students with the greatest academic aptitude. In addition, the conference recommended the development of tests to capture the various abilities and aptitudes demonstrated by gifted youth so that they could be put in place. Furthermore, the conference, while recognising the importance of the identification of gifted learners, also saw the limitations of the available assessments. The conference recommended that other data needed to be collected to identify a larger range of gifted youth. However, it was agreed that identification efforts without provisions or programming to support gifted students would be a waste of time, resources, and human capital (Jolly, 2014). Notwithstanding the 1958 conference, it seems that the identification process remained a major issue in gifted education, and the question of who were the gifted still had no precise answer (Gubbins, Callahan, & Renzulli, 2014). Since culture and context influence the identity of who is gifted, it may not be possible to reach a consensus among scholars in the field of gifted education.

### 3.4.1 Identification procedures

Renzulli and Reis (1985) developed a Revolving Door Identification Model as a practical application of the three-rings theory; the significance of this model was to provide a talent pool of above average students (Renzulli, 1999). These authors thought that defining giftedness and designing a suitable programme should be early considerations in the generation of gifted identification. They also explained the process for identifying gifted students in school to help the identification team:

> The team first decides on a definition, target population, and programming model, then a
>
> screening procedure is selected, and next, identification instruments (tests, checklists, etc.)

are chosen for the final selection process. Tests and checklists must be chosen to fit the programme being developed and should be both valid and reliable instruments (Reis & Renzulli, 1985, p. 2).

Callahan et al. (1995) set out a number of guidelines to help practitioners in gifted identification that include the following: broadened conception of giftedness by adopting a clear definition and using multiple identification processes; using separate, unique instrumentation for different areas of giftedness; ensuring the validity and reliability of the instrumentation; avoiding the use of a single cut-off score on an instrument or a matrix for making screening and identification decisions; and identification based on student needs, not numbers, quotas, or slots.

This was important:

> Be aware of and capitalise on the fact that giftedness may manifest itself in different ways in different cultural or socio-economic groups. Avoid the use of matrices which sum the scores from several assessment tools to form a single score indicative of giftedness (Callahan et al., 1995; p. 424).

In line with Callahan's guidelines, Renzulli (2005; 2015) provided a series of orderly steps in the identification process (see figure 3.4). Renzulli's identification model is aimed at improving creativity and task commitment in students who are identified by test scores or other means such as teacher nomination. Renzulli's identification model is also aimed at promoting the interaction of task commitment, creativity, and above average ability by providing learning experiences. The system further provides opportunity, encouragement, and resources for the progress of gifted behaviours (Renzulli, 2005; 2015). In this system of identification, there are a number of steps to consider.

Step one: Academic Performance and Test Score Nominations. Renzulli (2005) suggested that, at step one, children's academic achievement should be considered along with the end of year grades for the previous two years, in order to formulate the appropriate criteria used in forming the talent pool. Determination of the target pool will serve the major target group of participation in a wide variety of provision services.

Step two: for those students who do not appear in stage one, the teacher should use a form for rating underachievers whose abilities may not be reflected in a standardised test:

Teachers should be informed about all students who have gained entrance through test score nominations ... step 2 allows teachers to nominate students who display characteristics that are not easily determined by tests (Renzulli, 2005, p. 46).

Renzulli (2005) suggested avoiding the referral of students selected by test scores as the 'truly gifted', and the students selected by teachers as the moderately or possibly gifted. He also recommended being fair in the distribution of opportunities, resources, or services provided.

Step three: Alternative Pathways. Renzulli (2005; 2015) proposes adding other options to support the selection and nomination process. These alternative pathways could include parents' nomination, peers' nomination, and achievement certificates. Issues relating to these alternative pathways, for example, parental bias, would have to be taken into account:

Students nominated through one or more alternative pathways will become the subjects of a case study by the Review and Selection Team ... A local planning committee or the Review and Selection Team should make decisions about which alternative pathways might be used (Renzulli, 2005, p. 50).

Step four: Special Nominations. In this final review step, teachers provide a list of all nominated students to make sure that there are no drop-off students from the gifted pool. This step allows teachers, based on their previous experiences, to nominate students whom they know very well, and who have not been recommended for joining the gifted pool, whether that be teachers from a previous year, or gifted, topic-oriented, or special education teachers accountable for special programmes. This procedure allows for a final nomination of the total school population and helps to pick up students that may have 'turned-off' school or developed patterns of underachievement as a result of personal or family problems. This step also helps to overcome the general biases of any given teacher who is an under-nominator or a non-nominator (Renzulli, 2005, p. 50).

Step five: Notification and Orientation of Parents. In this stage, an invitation letter should be forwarded to the parents to invite them to the orientation meeting in order to describe the nature

of the provision programmes that the school intends to provide. The meeting should present a description of the proposed programme and an explanation of the nature of giftedness and the skills and goals related to it. The orientation meeting should also provide clarification of all programme policies, procedures, activities, and events. An explanation of the admission and nomination processes should be given, progress points should be notified, and any further changes announced in the faculty and members of the provision programme. Other orientation meetings should be delivered to the students in order to explain the aims and the output of the provision programmes. Step six: Action Information Nominations. Renzulli (2005) defined this stage thus:

> The dynamic interactions that occur when a student becomes extremely interested in or excited about a particular topic, area of study, issue, idea, or event that takes place in school or the non-school environment. It is derived from the concept of performance-based assessment, and it serves as the second safety valve in this identification system (Renzulli, 2005, p. 53).
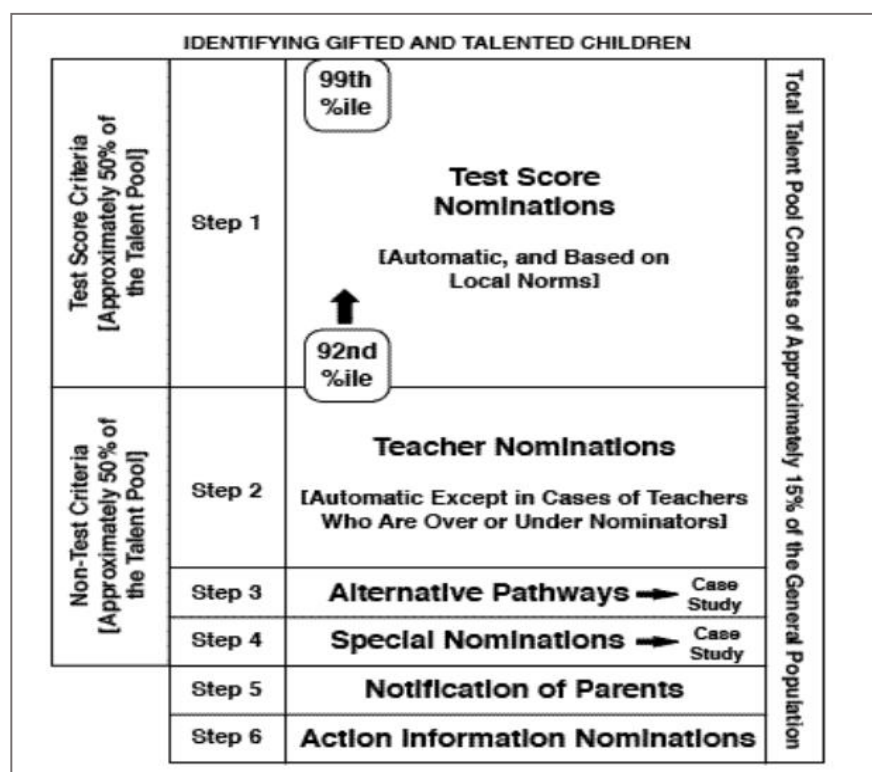


Figure 3.4 Renzulli identification system (Renzulli, 2005, p. 36)

Renzulli's steps (2005, 2015) align with Callahan's guidelines. Both broaden the pool to consider a range of giftedness, whether through valid tests, teacher and parents' nomination, or avoiding the use of a cut-off score. In addition, Renzulli (2005; 2015) recommended providing

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several enrichment in-class practices that might result in recommendations for an individual plan through the Action Information process. Teachers should be oriented in using the Action Information process in order to facilitate and train the gifted students.

In reviewing some empirical papers that apply the Revolving Door Identification model in Minnesota and in suburban schools, Westberg (2010) conducted multiple case studies to follow up on the lives of three students (Graham, Jenna, and Patrick), twenty-five years after they had enrolled in a gifted programme in elementary school based on the Revolving Door Identification Model by Renzulli and Reis (1985). Westberg (2010) investigated the relationship between students' early interests and their subsequent vocations and avocations as young adults. The results provide support for the Revolving Door Identification Model. When interviewed, Graham was about to receive his doctoral degree in his favoured major, and he continued to be involved in innovative projects. He had written nine books and a number of novels. Jenna held a prestigious position in a large company; she was pursuing her master's degree and was responsible for developing a new project in her favoured major. Patrick had been involved in research projects and his results had been published in scientific journals. Through this study, the Revolving Door Identification Model demonstrated its validity in selecting gifted students who demonstrate over time that they are producers.

In relation to gifted individuals' life trajectories, an ongoing longitudinal study in the UK by Freeman (2005) reported contradictory results. In 1974, Freeman employed physiological testing and in-depth- interviews to compare three different groups of children in their life trajectories: those who were labelled gifted students, those who were non-labelled gifted, and random ability children of the same sex, age, and socio-economic status, sharing the same experience in the same school class. Freeman (2013) found that the label created some pressure on some cases whether this was positively or negatively. Those with exceptionally high IQs were satisfied with their life qualities and had found ways of organising their powerful mental abilities and their personal learning style as they moved into adult life. Those with merely a very high score remained less mature and less efficient with shorter-term thinking techniques, like rote memorising their lesson-notes (Freeman, 2013).

The initial concern of Freeman's study was to discover why some children were labelled as gifted, while others of identical measured ability and school achievements were not described in this manner (Freeman, 2006). From the author's point of view, an initial concern of Freeman's study was

inconsistent with the study design, as tracking gifted students for a long period would not provide the answer as to why they were described as gifted. It may have been more appropriate at the time to examine the validity of the instruments used for such labelling in relation to the policies at that time, and to explore the attitudes of the identification practitioners toward gifted students. Also, the changeable variables such as SES and emotional aspects could affect the life quality of gifted individuals and limit their achievements in life. In addition, it is supposed to consider the ethnicity and geographical features in Freeman's sample as it could affect the privileges of the gifted individuals' lives.

### 3.4.2 National Association for Gifted Children's standards

Callahan's guidelines (1995) and Renzulli's identification concept were incorporated into the standards used to assist school districts in examining the quality of their programming for gifted students by the National Association for Gifted Children (NAGC). These standards are divided into seven criteria: Programmes Design, Administration and Management, Identification, Curriculum, Socio-emotional Guidance and Counselling, Professional Development, and Programme Evaluation (NAGC, 2000). Each criterion has a framework that includes minimum standards (nominal requirements for a satisfactory programme) and exemplary standards (characteristics of excellence in the gifted education programme).

NAGC (2000) developed the standards that all teachers who work with gifted students have to meet. These standards presented the main understanding of differentiation issues, learning differences and preference, and strategies. For example, teachers of gifted students need to identify the learning differences, developmental targets, and cognitive characteristics of gifted students, including those from diverse linguistic and cultural backgrounds. Teachers need to recognise the gifted students' academic and social-emotional needs, fostering creativity and acceleration by making appropriate learning and performance modifications for individuals with gifts. Furthermore, it is the teachers' duty to select, adapt, and use a wide range of evidence-based strategies to advance the learning of gifted and talented students.

Klimis and VanTassel-Baska (2014) developed the following list of expectations for highly effective teachers, in order to create criteria to guide teacher selection. Firstly, teachers should demonstrate the competencies/skills needed to develop and provide students with optimal

educational experiences. Furthermore, they must provide evidence of the following abilities/skills through a portfolio, résumé, or interview: the understanding of gifted learners' characteristics; the development of a differentiated curriculum appropriate for gifted learners; the development of a curriculum that endorses creative, critical, and complex thinking; the use of a variety of methods to deliver instruction appropriate for gifted learners; the use of multiple assessment to meet the academic needs, interests and learning preferences of gifted students; the ability to address a real-world problem through creative tasks such as service learning; good communication skills with students, school staff, families, and community members; and participation in school improvement, reform, curriculum teams, or other related duties (Klimis & VanTassel-Baska, 2014, p. 175).

NAGC considered the following issues for identification: (a) the identification process needs to occur over time because giftedness is not static but dynamic; (b) multiple tests and opportunities need to be provided to allow learners to display their gifts in order to decide whether someone can indeed be identified as gifted; (c) giftedness should be characterised through all cultural, ethnic, and socioeconomic groups; and (d) giftedness may be displayed within a specific major. What is more, NAGC (2015) stressed that the possibility of developing gifts into talents is linked to early detection and identification.

In the use of assessment as an identification tool, NAGC (2008) set five non-negotiable practices. Firstly, the definition of giftedness and the form of assessment should align, in order to achieve validity, and both should be determined by the policy makers or state legislation. In addition, the objectives, outcomes, and goals of gifted programmes, along with the characteristics of students and achievement levels should align with the form of assessment in order to achieve reliability and validity. Secondly, the identification process should rely on a set of metric assessments to determine the gifts, as a single scale may not be enough to determine whether children are gifted. That is to say, different elements, for example mathematical cognitive ability, should be measured by a variety of tools that align with the gifted provider's aims, goals, and outcomes. Thirdly, in the case of the assessment context, it should simulate the students' normal classroom setting, as this familiar setting allows students to demonstrate their knowledge, aptitudes, and skills more easily. Indeed, it is unfair to classify those students who are judged outside their natural setting. Fourthly, the assessment and instruments must be comprehensive, in

terms of standards of use, psychometric properties, and all information concerning validity and reliability. Furthermore, the school administration must make the official documentation of each assessment used for identification clear to participants. In addition, with regard to validity and reliability, standardisation of the instrument should be applied in the case of absence of information. Fifthly, the identification team and practitioners should be well trained to ensure that the outcomes and data from the identification process come from defensible reliable data and not from nepotism, parental pressure, or political relations. Some of these practices were followed in Saudi Arabia when identifying gifted students.

### 3.4.3 Identification in Saudi Arabia

The identification procedures in Saudi Arabia involved collaboration between three parties, specifically the Ministry of Education, Mawhiba, and Qiyas. The procedure was based on (a) teachers' nominations for potential students, (b) with outstanding academic achievement in a specific domain, and (c) achieving a high percentile on the instruments provided by MOE (later provided by Qiyas). The Saudi identification system began the identification process at aged nine (grade four) as all of the identification instruments available in Saudi Arabia were standardised for learners between the ages of nine and sixteen (Aljughaiman & Grigorenko, 2013).

Numerous studies have pointed out the limitations of the identification process in Saudi Arabia (Aljughaiman, 2009; Aljughiman & Maajeeny, 2010; Alzoubi & Bani Abdel Rahman, 2016; Bin Yousef, 2014; Qarni, 2010). This limitation in identification might be attributed to attempting to confine the wide concept of giftedness into one tight term. Saudi Arabia may need to broaden the concept of giftedness in order to allow more students to enrol in gifted programmes. Renzulli's three-rings model could address this issue, where it allows for a wide range of students to be identified as gifted. Saudi Arabia only considers the top five per cent for enrolment in gifted enrichment programmes, whereas the three-rings model allows for fifteen to twenty per cent of top students in any area of human endeavour, which is more than the Gagné model of ten to fifteen per cent (Gorss, 2008; Renzulli, 1999). The flexibility of the three-rings model is aligned with the Saudi Vision 2030 for the national transformation programme 2020 in which the first strategy in education is to provide education services to all types of students. What is more, global criteria

have been considered in the Saudi Vision, which has relied on global and regional standards as performance indicators (Saudi Vision 2030, 2016).

The three-rings model looks beyond giftedness, as it aims for a creative final product of having giftedness. To this end, Renzulli advocated giving students opportunities to conduct independent projects to increase their creative capabilities. According to Gross (2008), the three-rings model builds on the characteristics of the 'creative/productive' adult. This view aligns with what the Saudi enrichment programmes aim to produce, which is an innovative product. In addition, the provision adopted by the Saudi Ministry of Education has benefited from the three-rings theory both in setting its goals and in undertaking new pedagogical experiences (Aljughiman, 2010).

Saudi Arabia has adopted NAGC standards, so many procedures and policies for gifted students in Saudi Arabia have been adopted from work completed in the United States. However, some of these procedures have been amended for the Saudi context such as some of the enrichment programmes and some of the NAGC criteria (Al Nafa'a, 2000; Qarni, 2010).

Drawing from the NAGC standards, Aljughaiman et al. (2009) developed standards for programme quality for the Saudi context. Following several workshops with experts from across the Kingdom, five main areas for standards were identified: organisation and planning, curriculum and instruction, professional development, creative environment, and ongoing evaluation. In order to test the validity of this standard, in 2010 Aljughaiman and Maajeeny evaluated the gifted programmes at Saudi schools with regard to the quality standards developed by Aljughaiman et al. (2009). The sample was forty-three schools hosting the gifted programmes. Through interviews with teachers and observations of the classrooms, the study revealed that schools were making efforts to apply certain specific criteria as identification standards. Unfortunately, however, the teachers were not sufficiently qualified for activation of the professional development standards. The study partly relied on observation to examine the application of the criteria; however, the identification criteria needed to be explored in greater depth through an instrument such as an in-depth interview with the identification team at each school.

Qarni (2010) conducted a mixed-methods study that used a questionnaire, interviews, and observation in order to evaluate the quality of provisions for gifted students in Saudi Arabia, relying on the NAGC standards. The sample was 541 stakeholders who worked in gifted centres,

including the gifted students and their parents. The study showed significant differences from the findings of Aljughaiman and Maajeeny (2010). Qarni's results indicated that the provision for the gifted in Saudi Arabia was not aligned with the NAGC standards in administration, identification, or professional development. Therefore, the efforts toward applying the standards failed to hit the target and this necessitated reconsideration of the standards and their application. This non-alignment between standards and application might be attributed to shortages in the infrastructure in gifted services, un-updated policies, manpower, and training needs issues, and weak coordination between the main authorities that advocate for the gifted (Al-Zoubi and Bani Abdel Rahman, 2016; Bin Yousef, 2014).

The statistical report of the National Project for Gifted Identification in Saudi Arabia showed that, in the process of nominating gifted students, teachers were only allowed to nominate one student in each class (Mawhiba, 2015). This limitation is inconsistent with NAGC practices, Renzulli's steps (2005, 2015) and Callahan's guideline (1995) for broadening the talent pool.

Thus, further consideration of the global criteria for the identification process could enhance practices used to identify giftedness in Saudi Arabia. Visiting a special school for gifted students in the USA could provide an opportunity to see the standards applied in real life which Saudi Arabia adopted in their original form, permitting a deeper understanding of these standards. In this way, this study could reduce the gap between the standards and their application.

## 3.5    Total Talent Development approach

The creation of small groups labelled as 'gifted' was viewed by some as old-fashioned, whereas new ideas called for expanding the number of beneficiaries from these advanced services to increase human capital (Eyre, 2012). In addition, IQ tests became less dominant in identifying gifted students, and used as threshold requirements to enrol in gifted programmes (Dai & Chen, 2013). However, a number of scholars called for a paradigm shift and rejected the classical methods in gifted education, in addition to calling for total talent development (e.g. Eyre, 2012). The talent development approach was based on two goals: firstly, identifying individual capabilities and providing them with the opportunities to reach their highest level of competence, and secondly, nurturing the individuals within society who could contribute to their society's

wealth, solve problems, and lead change in all areas of human knowledge. This approach is very close to the Saudi mission and vision in nurturing giftedness (MOE, 2015).

Renzulli and Reis (1997) created the first developmental concept of giftedness entitled the three-rings model. The model assumed that giftedness components or qualities are contextual and developmental in nature. Therefore, through research and educational practices, Renzulli developed the Schoolwide Enrichment Model (SEM) that underpins this study (figure 3.5). The SEM concerns the total improvement of the school according to their local resources, student population, school leadership dynamics and personnel qualification, and creativity. The SEM model has demonstrated practices based on the research findings; it consists of three interacting dimensions:

1.  Organisational components: resources used to support programme development such as staff training materials, an enrichment materials database, procedures for staff teaming and interaction, and vehicles for promoting parent and community involvement.

2.  Service delivery components: direct services to students, containing the following services:

    A. The Total Talent Portfolio (TTP): The school can gather information about the students' abilities, interests, and learning style preferences. The information can be metric information, nominations letters and forms, achievements records, etc. This service allows the school to collect, update, review, analyse, and classify different types of information that help the school know more about the students' strengths.

    B. Curriculum Modification Techniques: In this service, the school can assess the students' level of mastery with regard to the regular curriculum in order to adjust it to meet the students' needs, and to provide alternative learning preferences for students who can easily understand regular material at a more rapid pace. In this service, the school can apply the Curriculum Compacting process, where the teacher can define the goal and outcomes of targeted units of study, then replace the units that the students have already mastered with interesting activities, such as content acceleration, group research projects, or peer teaching, that are pursued during the time gained by compacting the curriculum.

    C. Enrichment Learning and Teaching: The school has a set of strategies to promote active learning, which can be used in any kind of school structure (e.g. special groupings, internships). This strategy is a non-graded activity that allows the students to have an opportunity to try different approaches to learning through a place called enrichment clusters. Enrichment clusters apply an

inductive approach to learning based on the Enrichment Triad Model. The students can start their project in the cluster and proceed to work with a specialist in their field of interest. The cluster permits the students to apply higher order thinking skills in their project to deliver a solution to a real-world problem. The school can offer clusters through an extended time at the end of the day, usually one half-day per week. Sometimes the students can continue working on one project over several semesters.

3. School Structures: a variety of structures, such as a regular curriculum that consists of the predetermined goals, schedules, learning outcomes, and delivery systems of the school; the regular curriculum should be determined by the stakeholders as the centrepiece of students' learning. There would be enrichment clusters, which are non-graded groups of students who gather during designated time blocks during schooltime to work with an expert who has interests in common with them; the choices of the clusters would vary, from creative writing to drawing, sculpting, archaeology, and other areas, in order to stimulate thinking skills and knowledge utilisation. There would be a continuum of special services which offer a broad range of services to meet individual needs, including the following: counselling services, acceleration, direct assistance in facilitating advanced level work, arranging for mentorships with faculty members, and facilitating the connections between students, their families, resources, and agencies.

This model concentrates on the comprehensiveness of opportunities and services where the opportunities are for all, not solely for a specific category. It seeks to develop potential talents by assessing strengths and providing services to develop these strengths, in addition to promoting school personnel to continuous professionalism, staff development, and programme planning. It attempts to transform the school by adopting a collaborative culture that includes appropriate decision-making opportunities for students, parents, teachers, and administrators. Therefore, it seeks to develop and enhance the whole school system, whereas in this study the major focus will be on the school components that allow the researcher to understand what is going on inside the targeted school in the USA. However, this model might help this study to understand the school components in the case of proposed principles or converting a regular school into a special school for the gifted.

The theory includes several aspects of school mechanism that this study aims to investigate, such as school structure, students' portfolio and identification, and organisational components. Nonetheless, this study will look further than this model in terms of school context, potential for transferability, leadership, and partnership. However, the SEM is the nearest theory that can assist this study to understand the components and principles of a special school for accelerated students.
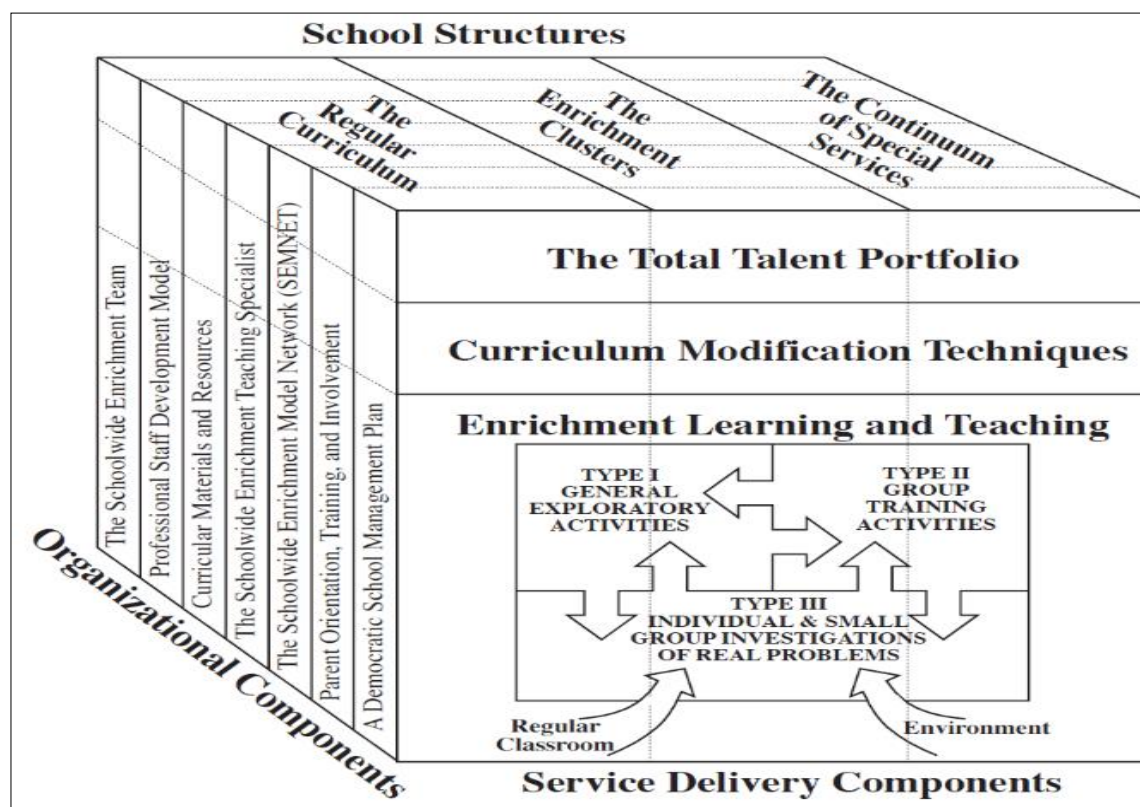


Figure 3.5 Schoolwide Enrichment Model, Renzulli and Reis (1997).

Renzulli and Reis (1997) claimed that this model is suitable for schools to develop through the implementation of SEM in a way that respects local beliefs, resources, demographics, state guidelines, and local politics. They believed that SEM would act as a guide to modify the practical procedures and theoretical fundamentals. These aspects will be taken into account when finalising the Saudi proposed intervention for accelerated students. What is more, this study will rely on this theory due to its flexibility in practice. Additionally, SEM is based on the three-rings model that was proposed earlier in this chapter in order to broaden the identification practice in Saudi Arabia. Furthermore, SEM has had a major effect on the structure of the enrichment model applied by the Saudi Ministry of Education (Aljughiaman, 2010). Moreover, SEM is aligned with the NAGC

standards that Saudi Arabia adopted in the early stages of gifted provision (Aljughaiman & Grigorenko, 2013).

SEM has been successfully implemented in over 2000 US schools. In addition, SEM is flexible enough to be applied in different regions in the world, where it has been tested in different contexts (see Renzulli & Reis, 2013; Reis & Renzulli, 2003). A number of indicators show the large range of different contexts in which SEM has been implemented. For example, Renzulli Learning system (RL), an online enrichment programme based on SEM, has to date been used in thirty schools from different countries around the world (Torrano & Saranli, 2015).

There are many models in the gifted education field, some concentrating on the differentiation of the curriculum such as the Kapalan Model, Maker Model, and ICM Model (Kapalan, 1993; Maker, 1982; VanTassel-Baska & Wood, 2010), or those concentrating on learning skills such as the Enrichment Triad Model (ETM) (Renzulli; 2012b). However, this study is influenced by some components of SEM due to its comprehensiveness and the similarities between its dimensions and those of recent study (see table 4.8 in chapter four) that aimed to look at the topic through two stages. None of the other models were as suitable for this study. The Kapalan Model (Kapalan, 1993), for example, examined the differentiation of the curriculum in terms of its content, product, and environment. However, the Kapalan Model considers having just one theme on which to concentrate as a learning experience. This is similar to most special schools, which focus on a specific theme to study. However, it concentrates on the curriculum, which is part of the school system, and neglects the identification procedure as a central pillar when establishing a special school. However, what distinguishes Renzulli's Schoolwide Enrichment Model from others is the presence of an important dimension, namely organisational structure, which is not found in other models that match with recent study manner that seek to develop principles for a special school for accelerated students. SEM might help this study in shaping the findings from Stage One to identify a set of principles that can be presented in Saudi Arabia for testing purposes.

## 3.6   Gifted provision types

'Gifted students require comprehensive and ongoing differentiated curriculum and instruction to develop their abilities appropriately' (Klimis & VanTassel-Baska, 2014, p. 174). Special schools

demand more than traditional schools in terms of the curriculum priorities, because of the level of subject matter and the breadth of the required courses (Stanley, 1991). The curriculum provided in special schools normally aligns with the learning characteristics of gifted students, who learn faster and possess problem-solving skills that cannot be used in traditional schools. The curriculum is usually complemented by advanced college courses. The schools also provide students with enrichment activities and extracurricular experiences such as seminars, scientific trips, and internships with university researchers (Rapp, 2008). Klimis and VanTassel-Baska (2014) developed the curriculum goals for three special schools. The goals concentrate on developing the following aspects: critical and creative thinking skills; attitudes and independent learning skills; oral, written, visual, and technological communication skills; aesthetic appreciation and artistic/creative expression in various domains and media; self-understanding, identity, and healthy coping mechanisms; and the social skills and dynamics required for leadership. The next section sets out the basic types of school provision for gifted students. These types of provision have been tested in different contexts and most have been applied in several countries. The strengths and limitations of each are also discussed.

### 3.6.1 Acceleration

Acceleration occurs when students are permitted to move through the traditional curriculum or academic grades at a faster pace than typical, thereby matching the pace of instruction with the pace of the gifted students' mastery, commensurate with their abilities (Colangelo et al., 2004; NAGC, 2015). Acceleration allows gifted students to meet older peers and it can be implemented in several ways, including concurrent or dual enrolment in school and university; grade skipping, that is to say allowing gifted students to skip the subjects that they have already mastered or can easily and rapidly assimilate; early admission to the school or college; curriculum compacting which contains advanced material and the removal of materials that students have mastered; and classes taught at a high level of difficulty and honours, Advanced Placement (AP), and International Baccalaureate (IB) classes. In addition, acceleration is costless because students spend less time progressing through the academic grades (Colangelo et al., 2004).

The publication of *A Nation Deceived* by Colangelo et al. (2004) presented extensive research supporting the use of acceleration.  Research has shown that accelerated students have a

greater chance of enrolling in the labour market, and that they tend to be more motivated, feel socially accepted and academically challenged, have earned graduate degrees at higher rates than other students, and are happier with their experience (Colangelo et al., 2004; Olthouse, 2015). Kulik and Kulik (1984) conducted a statistical and analytical review (meta-analysis) of the results of twenty-one pilot studies. Their studies into the impact of acceleration in primary and secondary schools showed that acceleration developed the minds of students, and contributed to improving their academic achievement. In addition, the study showed that accelerated students' performance in tests was superior to the performance of non-accelerated students.

Feldhusen, Proctor and Black (1986) recommended guidelines for selecting appropriate students and determining appropriate levels of accelerated instruction. They stressed the need for comprehensive psychological evaluation of children's intellectual functioning, academic skill levels, and social-emotional adjustment by a psychologist before enrolling them in acceleration activities. They mentioned that the children should have an IQ of 125 or a level of mental development above the average of the grade they desired to enter. In addition, the children should demonstrate skill levels above the mean of the grade desired. Furthermore, the psychologist should confirm that the children do not feel unduly pressured by the parents to advance. Although it is crucial that the parents be in favour of grade advancement, the children should also express the desire to move ahead. Lastly, the receiving teacher must have a positive attitude in respect to acceleration. Feldhusen, Proctor and Black's (1986) guidelines helped decision-makers succeed in the acceleration of students; they also helped to shape acceleration practices and research (Colangelo et al., 2004).

Despite the evidence supporting acceleration as a valid strategy in gifted education, teachers continue to have negative attitudes towards acceleration and its applications (Colangelo et al., 2004). Therefore, teachers' attitudes toward acceleration affect the success of its application (Davis & Rimm, 2004). To shed light on this, Siegle et al. (2013) examined the ways in which teachers' and administrators' attitudes toward acceleration influenced its implementation in schools. The study utilised a seven-point rating scale. The findings indicated that the educators were most troubled by social issues related to acceleration, which could be due to a lack of counselling. However, early research by Colangelo et al. (2004) elaborated on the reasons why

teachers did not accept acceleration. These reasons reflected teachers' lack of familiarity with research evidence on acceleration and this affected their confidence in applying acceleration, since it was not taught in colleges of education. In addition, teachers believed that acceleration would negatively affect the self-esteem of un-accelerated students. In contrast, the work of Lee, Olszewski-Kubilius and Peternel (2010) produced different findings. They interviewed students and teachers participating in an acceleration programme, in order to understand acceleration from multiple points of view. The study found that teachers believed that acceleration provided a distinct challenge for students, making them more committed to their schoolwork, and that this influenced their academic achievement positively. The students in this study expressed how they liked the acceleration intervention and the feeling of being accelerated students.

Accelerated students have shown extraordinary performance in mathematics in comparison to their non-accelerated peers. In the USA, Park et al. (2013) conducted a forty-year longitudinal study of gifted students in mathematics. The study examined three hypotheses about the effects of grade skipping on future educational and occupational outcomes in Science, Technology, Engineering, and Mathematics (STEM). The sample consisted of 363 grade skippers and 657 matched controls. The study revealed that accelerated students were more ambitious, earned graduate degrees at higher rates, and obtained patents in Science, Technology, Engineering, and Mathematics (STEM) areas.

From a social perspective, research has shown no negative effects of acceleration on students' social-emotional development. For example, Gross (2006) conducted a twenty-one-year longitudinal study in Australia, which found that students who were accelerated by two years or more were more satisfied with their lives and had more positive relationships compared with those who had been accelerated by one year or less.

In Germany, Gronosta et al. (2016) used grounded theory in order to examine the experiences of seven accelerated students aged from eight to sixteen years old who skipped one or two grades. The study found that grade acceleration led to a more pronounced academic achievement, and that it enhanced the school socially and intellectually. However, they stressed the importance of including awareness activities and individual counselling on the potential of accelerated students within the school that intended to apply acceleration.

From my point of view, despite the fact that acceleration addresses some needs and solves some problems encountered by gifted students at school such as boredom, underachievement, and school dropout (Rubenstein, Siegle, Reis, McCoach, & Burton, 2012), in the long run, acceleration can cause social problems for accelerated students. These might arise because of age difference, and age suitability of social events for accelerated children, such as parties without chaperones. However, sufficient awareness and counselling for students, teachers, and parents could help to overcome such problems and successfully take care of applicants.

### 3.6.1.1 Acceleration in Saudi Arabia

In 2014, Saudi Arabia released and applied new regulations for acceleration. The Saudi acceleration system requires students to skip an entire grade and to transfer to an appropriate grade that is compatible with their level of development. The Ministry of Education disseminated the instructional manual for the acceleration process among Saudi schools and the General Directorate for Gifted Care (see appendix 10). The manual includes the justification for applying acceleration, including differentiation among the students and evidence about the influences of acceleration. The manual defines acceleration as a procedure that allows the students to move to a higher grade faster than their peers. The students who are eligible to accelerate are those who have mastered all the compulsory skills in school modules earlier than their peers, and/or who achieved ninety-eight per cent or above in each compulsory module assigned in the previous academic year. The manual specifies the permitted grades for acceleration (see table 3.3).

The manual sets out the procedure for acceleration. First, the students must have scored in the top three per cent on the national test (Qiyas Scale). Second, for primary level, students should have mastered all the compulsory skills, and for elementary and secondary school levels students should have achieved ninety-eight per cent or above respectively in each compulsory module. Third, the school should activate an awareness programme about acceleration. Fourth, nominated students should be interviewed and their parents' approval obtained for accelerating their children. Fifth, the student record and information should be completed. Sixth, the achievement test should be given to all the nominated students and the results announced.

The manual describes each requirement in detail in order to facilitate the application of acceleration, where most of the requirements coincide with what the literature reveals, such as awareness and applying conditions for acceleration. However, the instructional manual does not

include any training for teachers who are responsible for dealing with the accelerated students. A further issue is that Saudi Arabia has allowed the top three per cent (0,01%) in the National Test for Gifted Identification to be accelerated, whereas in Germany only approximately 0.05% of all students skipped their grades (Gronostaj et al., 2016). Furthermore, in the USA, successful acceleration programmes (e.g. the Study of Mathematically Precocious Youth SMPY and Washington's Early Entrance Programme) follow a similar procedure in screening their students, but they only accept students who score in the top one per cent in the Scholastic Aptitude Test (SAT). However, Saudi Arabia remains conservative in the students' ratio compared to the statement of Colangelo et al. (2004), that all students scoring in the top five per cent could be referred to acceleration programmes. Another concern is that the manual does not include a detailed counselling plan for the schools that apply the acceleration. Furthermore, the Saudi instructional manual has a mismatch with the guidelines by Feldhusen, Proctor and Black (1986) that help practitioners determine how best to accelerate gifted students.

The instructional manual by the Ministry of Education is not based on research, and acceleration had not been used in Saudi Arabia before the dissemination of the manual. The regulations were negotiated in 2012, whereas the actual application of acceleration did not start until 2014. However, the question about the long-term efficiency of acceleration in Saudi Arabia cannot be answered at this time because this would require a longitudinal study to track students to determine the efficiency. In addition, the research on acceleration efficiency has accumulated over many years (Colangelo et al., 2004). Therefore, it might be better at this time to benchmark and simulate the best practice in acceleration from experienced organisations.

Acceleration services in Saudi Arabia stop at the secondary level, therefore, the Ministry of Education has not included a plan for those students who have been accelerated and then graduate early from school. However, having a university-based intervention that is supported by counselling services can fill the gap between secondary level and university.

The current study seeks to help address this gap between school and university, by applying the concepts and components of a US university-based school to accelerated students in the Saudi context. The US school applies programmes for accelerated in grades eight, nine, ten, and eleven. In later stage of this research the school's concept and components will be proposed for

Saudi universities that receive government financial allocation. Gifted provision in Saudi Arabia is funded by the government as well as by public organisations and universities (Mawhiba, 2015).

Table 3.3 Permitted grades and levels for acceleration in Saudi Arabia

| School level | Permitted grades for acceleration | Comments |
|---|---|---|
| **Primary** | From grade 4 to grade 6 | Student can accelerate once in primary level |
| **Elementary** | Frome grade 7 to grade 9 | Student can accelerate once in elementary level |
| **Secondary** | From grade 10 to grade 12 | Student can accelerate once in secondary level [This stage is not yet implemented, as revealed by a member of the central acceleration committee] |

### 3.6.1.2 Early Entrance Programmes (EEP)

Early entrance to college is one of the acceleration approaches that permits high-ability learners to enrol in a college or university one, two, or more years earlier without obtaining a high school diploma. EEPs vary in their application, with some programmes permitting the students to live in university dorms, while others have to commute to college from their home. Some EEPs integrate the students in cohorts with peers their own age, whereas others give the students the freedom to attend college-level courses on a part-time basis while concurrently remaining at high school (Brody et al., 2004; Olszewski-Kubilius, 1995). However, EEP is a common intervention for accelerated students in many countries such as the USA, China, and Australia (Jung, Young & Gross, 2015).

Students who attend EEP are subject to a number of criteria that vary from one institution to another. Standardised testing is the major factor that affects admission to these programmes. In addition, some colleges or universities rely on several information resources for the applicants, such as interviews, readiness for university life, family support, and social and emotional maturity (Brody & Stanley, 2004; Brody et al., 2004; Olszewski-Kubilius, 1995)

There are concerns that involving younger than typical students in university life may affect their social and emotional progress. However, evidence showed that EEP has smoothed the transition to university for accelerated students and supported students academically, socially, and

emotionally (e.g. Hertzog & Chung, 2015), and that could be caused by the advanced environment that EEP offers to the students. Indeed, EEP typically provides the students with a range of facilities and support services such as special residence halls, an assigned counsellor, student lounge, and special social events. In addition, the goal of EEP in many universities is to support the entrants socially and emotionally, by encouraging them to attend supportive programmes that are designed to enrich their academic lives. These supportive programmes permit students to meet their true intellectual peers, so the early-entrance programmes may be a welcome improvement to their social lives (Brody et al., 2004; Hertzog & Chung, 2015; Janos et al., 1989). In addition, earlier studies showed positive results, as they indicated that entrants to early college programmes gained more academic honours and were awarded recognition in university activities more than their older peers (See Olszewski-Kubilius, 1995; Satnely, 2005; Sayler, 2015). However, a number of factors might also affect students' transition to college or university such as age, skills, family support, level of maturity, educational background, or personality (Brody et al., 2004).

The option for gifted students who are looking for accelerated programmes, but who are not yet ready for full time university enrolment, is to attend university-level courses part-time whilst remaining at high school, whether in dual-enrolment programmes, Advanced Placement (AP), or International Baccalaureate (IB). The latter programmes could be taught by high school teachers or a visiting lecturer from the university or college, and would usually be assessed by an outsourced partner. In addition, these options commonly provide the entrants with university credits when they enrol. However, in the case of absence of counselling services, social and emotional problems might appear (Brody & Stanley, 2004; Stanley1991). Therefore, EEP could be the natural progression for gifted students, specifically in the cases where the programme permits the students to take a university course whilst remaining with peers their own age in the same class (Olszewski-Kubilius, 1995).

Despite the research ignoring the academic difficulties encountered by the entrants to EEP, some research findings have been overwhelmingly positive regarding early entrants' academic achievement, where EEP programmes are recorded as the strong factor in academic success (Brody et al., 2004; Brody, 2005; Brody, 2015; Olszewski-Kubilius, 1995). In contrast, the Texas Academy of Mathematics and Science (TAMS), which ran EEP, did not achieve satisfaction in the

eyes of some participants, and they found the programme was not what they wanted to pursue (Sayler, 2015). This was in line with similar findings of studies undertaken in Australia (e.g. Young, 2010). TAMS surveyed 700 of the talented students eligible to participate in the TAMS programme, but had not sought admission. They found that students were worried about leaving their high school and their friends, and they were also concerned about access to the advanced curricula that they would not have had at their home high schools (Jones et al., 2002). However, TAMS tackled this issue by hiring professional staff who delivered the TAMS mission correctly. They also separated male and female students in order to deal with them as single units.

Despite some discouragement around establishing EEP (see Sayler, 2015), some of the successful programmes have helped create a major change in public attitudes towards early entrants to college, after they reached out to more gifted students to provide them with special supplementary accelerative intervention, which addressed their optimal development (Stanley, 2005). For example, the students who were involved in the Study of Mathematically Precocious Youth (SMPY) at Johns Hopkins University, established by Julian Stanley in the early 1970s, were successful, and it led to the development of several alternative programmes for high school students who needed access to acceleration (Brody et al., 2004, p.98). Stanley conducted a follow-up study of six extraordinarily young university graduates and found that most of them had earned PhD degrees and were working in prestigious positions (Stanley, 1979)

SMPY reached a number of conclusions that highlighted the importance of SMPY counselling efforts after many years of direct experience working with high ability students (Brody, 2015). SMPY assumed that above-grade-level assessment was crucial in order to estimate high-performing students' true level of ability or achievement, Furthermore, it also assumed that high-ability students need to be taught at their own pace of learning, that they may need to have access to more differentiated content and/or programmes, and may also need access to an above-grade level curriculum. SMPY asserted that if high ability students are not challenged enough, they might be at risk of failing to achieve their potential. Moreover, SMPY suggested that educational programmes should be individually personalised for advanced academic students to suit their needs. In addition, enhanced school programmes for advanced students should be put in place, including measures such as taking classes with older students, options for independent and/or

online work, and credit for content mastered outside of school. What is more, high ability students need to be prepared to be educated and developed into aware adults, and not just prepared for a future career. They also need to be able to cooperate with their intellectual peers in order to reinforce their sense of belonging, improve social skills, and encourage the pursuit of subjects in depth. Lastly, high ability students need to have role models who can provide a vision of the future in order to help them establish their academic goals for their future careers (Brody, 2015, pp.148–149). These conclusions by SMPY may support the current study when exploring the components required of a special school that run such programmes for accelerated students, especially in exploring curricula and counselling aspects.

Clark and Zimmerman (2002) used SMPY as a prototype when establishing recommendations, principles, techniques, and an identification process for educating gifted students in science and art at a proposed residential schools in Israel. They considered students' identification and characteristics, teacher selection and strategies, curriculum content, educational setting, and administrative arrangements as the main components in order to initiate a newly conceived programme for gifted students. They argued that the most effective method of identification is to have a battery which includes structured and non-structured nomination, achievement test scores, academic records, grades in specific courses, informal instruments, portfolios, interviews, and observation. They mentioned that gifted students are often dedicated to specific subject matters that interest them, and seek to develop themselves in knowledge and skills. Therefore, they argued that gifted students should be treated as individuals rather than as members of a group, and they must show their commitment to participating in intensive educational programmes.

In addition, Clark and Zimmerman (2002) recommended that teachers responsible for classroom instruction – or others such as counsellors or mentors – should be carefully selected. They highly recommended the teacher selection criteria by Klimis and VanTassel-Baska be used (see section 3.4.2 in this chapter). In addition, they stated that teachers need to have sufficient knowledge in specific subject matters, and mentors should master the domain that interests the students. Students would then be better off working partly with the mentor while also attending school. Clark and Zimmerman (2002) advised that a clear, explicit curriculum is vital for gifted

programmes, and delivering a qualitatively distinguished curriculum is not possible without a standard curricular foundation. They suggested having sequenced content from introductory to advanced level of accelerated learning related to the students' needs. They further advocated designing and creating units, adopting and modifying curricula to build a framework that fits with students' needs and interests, and having well-equipped classes and up-to-date labs for special study. Furthermore, administrators and staff should provide a climate in which flexibility in planning provides alternative educational options.

There are a number of differences between Clark and Zimmerman's approach and the approach taken in this study. Clark and Zimmerman determined the components required for establishing a new intervention for gifted students, and they set out recommendations for establishing a special school derived from the SMPY model, whereas the current study will carry out 'in-house' fieldwork, as well as investigating new components. It will identify the components of a special school for accelerated students that are derived from an actual school case study. Then, it will set out recommendations, principles, techniques, and action points that will be considered in Saudi Arabia by experts who may make further recommendations. In addition, SMPY relies on IQ testing and SATs (Scholastic Aptitude Tests) as a means to select students, whereas this study will look at including additional methods. SMPY is assigned for mathematically precocious students; however, this study will seek to suggest a school model that can develop giftedness and talents in several domains.

### 3.6.2 Enrichment programmes

Enrichment is a procedure where the students work on a specific topic in more depth or breadth in order to expand their knowledge and skills, and allow them to keep the same pace as their peers in the same classroom (Renzulli & Reis, 2012). This section presents a variety of enrichment types.

#### 3.6.2.1 Enrichment Triad Model (ETM)

From the conclusions of the three-rings concept of giftedness model, Renzulli (1985) developed his Enrichment Triad Model (ETM) in order to deliver a systematic enrichment approach (see figure 3.6). The ETM aims to generate creative thinking in gifted students. The ETM model offers three

types of enrichment activities: Type I includes general investigative experiences, which allow gifted students to clarify their own abilities and interests outside of the regular curriculum (e.g. hobbies, preferred learning styles, and preferred modes of expression). Type II involves group-learning activities, which allow gifted students to learn how to work more effectively with instructions to investigate their area of interest and to work effectively with other groups to develop their communication skills. Type III includes the implementation of the experiences of gifted students in their area of interest in order to create individual or small group projects that reflect in-depth thinking into solving real life problems. In Type III, gifted students use the methods of analysis and communication which are authentic to the profession of the investigation (Renzulli & Reis, 2012). Despite the changes and modifications to which the ETM has been subject, whether in a learning environment or in the curriculum, the ETM has still been extensively used and widely documented as one of the most widespread approaches in gifted programming whether in Brazil, Mexico, Switzerland, USA, Canada, and Germany (Renzulli & Reis, 2007; Sytsma, 2003; Torrano & Saranli, 2015). The ETM promotes student engagement in greater depth of learning, increased productivity, and improves their problem-solving skills beyond what is provided in a regular class. The ETM provides distinctive learning that relies on problem-based learning (PBL), which allows gifted students to focus on their topics of interest. It helps the students to become independent learners by development of self-directed lifelong learning skills (Callahan et al., 2014; Gubbins et al., 2014; Renzulli, 2012b).

Earlier studies examined the effect of the ETM and found positive results (Gubbins, 1995; Renzulli & Reis, 1994). More recently, in the USA an experimental study by Field (2010) showed a positive result when using ETM on oral reading fluency, reading comprehension, science achievement, and social study achievement. A random sample was utilised, consisting of 383 elementary students in two groups: a control group, and a treatment group who participated in Renzulli learning (RL). RL is an online educational learning system based on ETM by Renzulli (1985). The students used the RL for two to three hours weekly for sixteen weeks. The researcher utilised oral reading fluency tests and the Iowa Test of Basic Skills in reading comprehension; science and social studies tests were also used in pre- and post-tests. The study found that students who participated in RL demonstrated significantly higher achievement in reading comprehension,

oral reading fluency, and social studies achievement than control group students who did not participate in Renzulli Learning.
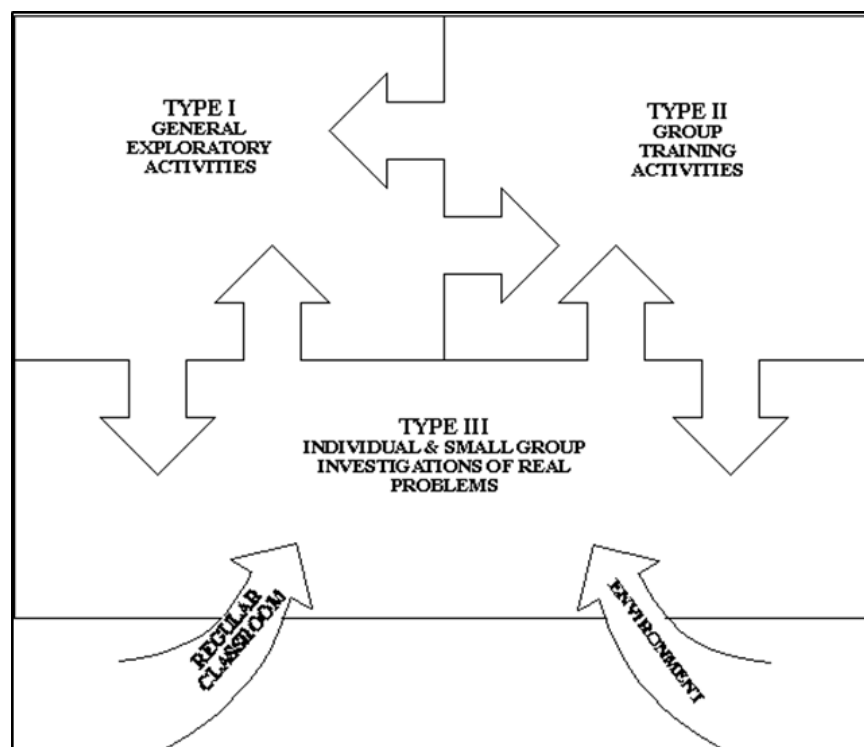


Figure 3.6 Enrichment Triad Model by Renzulli (UCONN, 2015)

In general, enrichment programmes have influenced gifted students' academic achievement and socio-emotional development, according to Kim (2016), who utilised a meta-analysis approach in order to examine twenty-six pieces of research on random enrichment programmes for gifted students between 1985 and 2014. Kim (2016) found that enrichment programmes had positive effects on academic achievement and socio-emotional development.

### 3.6.2.2 Autonomous Learner Model (ALM)

The ETM type I and II and the three-rings model endorsed learning through grouping. In contrast, Betts and Knapp (1981) believed that gifted learners do better when learning independently in order to create an innovative product, which is similar to the concept of ETM type III. They developed the Autonomous Learner Model (ALM) after gathering information from several sources. They sought information from consultations with pioneer national leaders, reviews of relevant literature, the training of teachers, and the experiences of teachers, administrators, learners,

and parents. These resource people worked together to build a new method that would meet the differentiated needs of gifted learners (Betts, 2003).

An Autonomous Learner was defined as follows:

One who solves problems or develops new ideas through a combination of divergent and convergent thinking and functions with minimal external guidance in selected areas of endeavour (Betts & Kercher, 1999, p.38).

The ALM aims to meet the needs of gifted students in terms of developing a positive self-concept, along with cognitive, emotional, and social skills. The ALM allows students to be independent, responsible learners, to be able to find creative solutions to solve problems, and to use both convergent and divergent thinking to generate new ideas. The basic elements of the Autonomous Learner Model include self-esteem, social skills, pull-out and resource programmes, curriculum, responsibility, experiences, teachers, critical and creative thinking skills, cultural activities, seminars, mentorships, and assessment. The ALM has been divided into five major dimensions: Orientation, Individual development, Enrichment activities, Seminars, and In-depth study (Betts, 2003) (see figure 3.7).

Dimension one: Orientation. This is an essential stage for the autonomous learner, as it provides information as the foundation for understanding self, the significance of group working, the process of lifelong learning, and what is available for the development of the total individual. This dimension contains four areas: Understanding Giftedness, Talent, Intelligence, and Creativity; Group Building Activities; Self/Personal Development and Programme; and School Opportunities and Responsibilities (Betts, 2003).

Dimension two: Individual Development. This has been designed to give students the appropriate skills, concepts, and attitudes necessary for their progression as life-long learners. This dimension contains six specific areas: Inter/Intra Personal Learning Skills, Technology, College & Career, Involvement, Organisational Skills, and Productivity (Betts, 2003).

Dimension three: Enrichment. The purpose of this dimension is to introduce learners to the concept of learner-based content to go beyond teacher-based content and support learners as they decide what they want to study and explore independently. This dimension allows learners to develop their own knowledge, processes, and products. The Enrichment Dimension contains five specific areas: Explorations, Investigations, Cultural Activities, Service, and Adventure Trips.

Dimension four: Seminars. These are developed by learners and simplified by teachers. This dimension contains a selection of important topics. It provides a forum for students in small groups to present and demonstrate their products to the rest of the group. The assessment of the seminar has to be done by learners, teachers, and other class members. The seminar normally takes two weeks to be developed and thirty minutes to present. Seminars focus on the following areas: Futuristic, Problematic, Controversial, General Interest, and Advanced Knowledge (Betts, 2003).

Dimension five: An in-depth study. After students have completed the four dimensions, they are considered to be independent learners. They possess the skills, concepts, and attitudes that allow them to choose their area of interest in long-term learning, either individually or in small-groups. This dimension contains five specific areas: Individual Projects, Group Projects, Mentorships, Presentations, and Assessment (Betts, 2003).
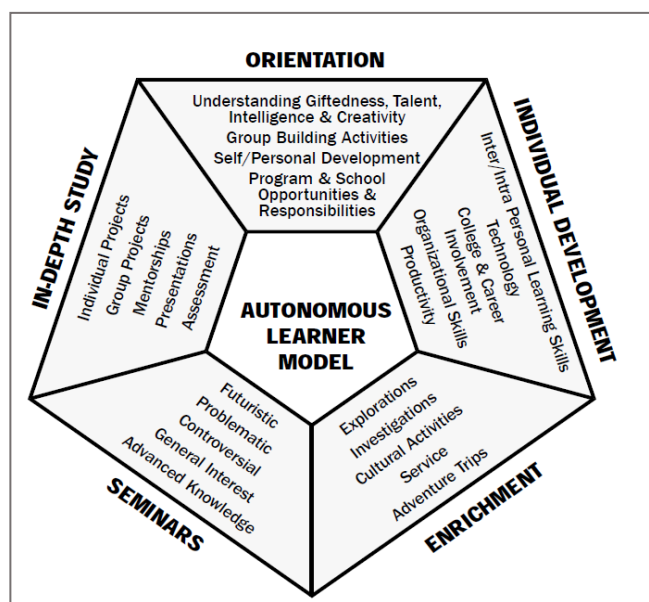


Figure 3.7 Autonomous Learner Model by Betts & Kercher 1996 (Betts, 2003).

ALM is widely accepted and implemented in the USA and Australia (Munns et al., 2012; VanTassel-Baska, 2000). In addition, Betts and Knapp revised the model to address the differentiation needs of the gifted learner (VanTassel-Baska, 2000). However, it appears that the ALM has not sufficiently been empirically tested. This is because when I used the following words in order to search ALM application (ALM, Autonomous Learner Model, Autonomous Learner Model by Bittes and Knapp, Autonomous Learner Model by Bitts and Kercher), whether through ERIC or Google Scholar, I did not find sufficient resources on its application.

### 3.6.2.3 Integrated Curriculum Model (ICM)

ICM is a curriculum framework developed by the Centre for Gifted Education at William and Mary University. The centre designed the model as a study syllabus for use in the classroom with gifted learners and which aims to meet the needs of gifted learner characteristics in terms of precocity, intensity, and complexity. NAGC has evaluated the model and described it as 'exemplary (VanTassel-Baska & Wood, 2010). The model addresses both the cognitive and affective dimensions of the gifted learner. The Integrated Curriculum Model consists of three interrelated dimensions. First, emphasising advanced content knowledge that includes higher-level processes, it employs careful diagnostic-prescriptive approaches in order to enhance the challenge level of the curriculum base. Second, providing higher-order thinking and processing, this dimension encourages students to use complex levels of information by employing generic thinking. It encourages learners to utilise information in generative ways, through productive discussions or project work. Third, organising learning experiences around major issues, themes, and ideas that define understanding of a discipline and provide connections across disciplines. This dimension helps learners to have in-depth understanding of disciplines in a systematic way. Gifted learners are taught selected themes and ideas based on careful research of the main area of interest in order to avoid misconceptions (VanTassel-Baska & Wood, 2010).

ICM has been tested in the field over the last decade. A longitudinal six-year study was conducted by Feng et al. (2005) in order to evaluate specific units of ICM that were implemented nationally in the USA. A quasi-experimental design was used. From nine elementary schools, 2189 students volunteered to make up the experimental groups. Pre-tests were conducted and, after thirty-six hours of training and instruction, post-tests were administered. The findings revealed that gifted students' learning was improved in critical reading and persuasive writing. In addition, ICM impacted positively on school change and the stakeholders reported that ICM was beneficial and effective (VanTassel-Baska & Wood, 2010). In supporting this idea, applying ICM in different contexts yielded positive results. In Turkey, Kahveci and Atalya (2015) examined students' thoughts on a social studies unit based on ICM instruction. The study utilised a written open-ended questionnaire to explore gifted students' views after two months of implementing ICM instruction. The study produced positive changes in students' attitudes with ICM instruction, such as their

predominately negative views towards social studies, which was due to students starting to like the social studies because of its relation to real world problems.

To sum up this section, the models described are similar in their main aim, where they all concentrate on three levels of knowledge: exploration, interest, and creation of a product that deals with an urgent problem or public issue. All the models are similar in the number and function of dimensions even though the names are different. Except for the ALM that includes five dimensions, two of them (orientation and individual dimensions) resemble type I in ETM and dimension one in ICM. In addition, the third dimension in ICM is similar to type III in ETM. However, most of the given models are flexible and this implies that it is possible to apply them in other contexts. Saudi Arabia has relied on the Oasis Enrichment Model that was derived and largely influenced by the structure of SEM by Renzulli and Reis (1997), which was extracted by the Enrichment Triad Model (see Aljughaiman, 2010). However, it might be better for Saudi Arabia to consider further models that have been empirically tested when applying enrichment programmes, in order to have a variety of options that can ensure that Saudi Arabia determines the most appropriate enrichment model for its context.

Nevertheless, the models presented group together gifted students based on their mental abilities. Ability grouping could also be applied in Saudi Arabia for gifted learners for enrichment purposes. The following section will explain ability grouping in detail.


### 3.6.3 Ability grouping

'Ability grouping' is defined as a group of students of the same ability regarding their demonstrated performance or readiness level. Ability grouping facilitates a number of differentiated educational goals effectively, including broadening, accelerating, and extending a curriculum. It emphasises controlling the pace and content of instruction to match gifted learners' needs (Kulik, 2004; Missett, Brunner, Callahan, Moon, & Azano, 2014; Rogers, 2007).

Ability grouping can take a number of different forms. Within-class grouping takes place in heterogeneous classrooms in which students are grouped with peers of similar ability. Research has found that most schools use this form and that it influences the performance of students positively (Gavin & Adelson, 2008; Kulik, 1992). Between-class grouping divides students into

three levels: high, middle, and low ability groups at single grade level in separate classrooms whether for the entire day or for a single subject. However, the groups' levels receive the same material and follow the same curriculum. Kulik (1992) found a moderate effect of between-class grouping on students' performance; she concluded that the lack of differentiation in the curriculum was a major problem in between-class grouping. Cross-grade grouping involves differentiation of the curriculum and instruction to group level. Kulik (1992) found that students who were involved in cross-grade grouping achieved more than students in separate grade levels (Gavin & Adelson, 2008; Kulik, 1992).

Ability grouping enables academic achievement improvement for gifted learners, with researchers reporting progressive social and emotional gains (Rogers, 2007). Hollingworth (1942) pointing out that the more able students were wasting their time in mixed ability classrooms. She suggested that gifted students might be grouped full-time in elementary level and then worked in regular grades in high school (cited in Gross, 2008). In looking at the various types of grouping strategies used with gifted learners, students may experience between-class grouping or grouping by interest, as in the practice of enrichment clusters. Ability grouping allows students to move either up or down during their educational activities. Flexible ability grouping permits schools to match students' readiness with instruction. Moreover, it has contributed to overall achievement gains. It allows students to have direct contact with ability-level peers and to explore content more deeply (Olszewski-Kubilius, 2013; Rogers, 2007).

Regarding ability grouping, extensive research has been done into what works for gifted students, whether ability grouping or mixed ability setting in the school is effective or harmful (Kulik, 1992; Rogers, 2007; Smith & Sutherland, 2006). Kulik (1984) strongly endorsed ability grouping; she examined three practices of ability grouping: grouping for enrichment, mixed-ability grouping for regular instruction, and grouping for acceleration. She conducted a meta-analysis study of thirteen pieces of research on their academic, social, and psychological effects on gifted students, finding a positive impact of grouping on gifted students' academic achievement, and a moderate positive impact on social and psychological aspects. Kulik showed that adopting a differentiated curriculum would improve these weaknesses, and this was supported by Rogers who concluded that the research showed a significant consistent support for the academic efforts that concentrating on enrichment and acceleration (Rogers, 2007; Kuilk, 1992).

The use of between-class grouping has been considered by some as a means to obtain optimum learning where it produces homogenous groups of similar ability (Roger, 2007). On the other hand, some negative research results show that between-class ability grouping has less effect on students' total achievement and lowers the self-perception of gifted students when engaged with a highly able reference group (Marsh & Craven, 2006). For example, a UK review showed a limited effect of between-class ability grouping on students' achievement (Duckworth et al., 2009), supporting what Lipsey and Wilson found in 1993 when they examined the effect of between-class ability grouping through a meta-analysis and found a moderate effect on overall student achievement. In alignment with these results, many schools in the USA applied a de-tracking system, where the students were deliberately placed in mixed ability groups or, in the case of one school setting, offered a highly challenging curriculum for all students (Burris & Welner, 2005).

While Saudi Arabia has a de-tracked system, it has nevertheless applied a pull-out grouping approach in teaching gifted students. In spite of this, between-class ability grouping remains negligibly small. However, within-class grouping could be appropriate in Saudi Arabia, as it does not require the provision of extra classes or hiring additional teachers; however, providing training to teachers who do not usually teach gifted students exclusively may improve the situation and offer gifted students more enrichment hours in mainstream classes.

## 3.7   Summary

This chapter reviewed and presented literature about giftedness. It focused on a range of issues, namely, definitions of giftedness, identification methods, and scales for gifted students, a total talent development approach, gifted provision types, acceleration and early entrance programmes, enrichment programmes, and ability grouping. In addition, appendix 13 includes a description and explanation of the types of special schools, including magnet schools, charter schools, and 'school within school' settings, and their suitability to the Saudi context.

# 4. Chapter Four: Research Methodology

## 4.1 Introduction

This chapter provides a description of the research design and methodology and the methods applied in this study. It also describes the sample selection and data collection instruments in both stages. This is followed by the approach to data analysis and trustworthiness, closing with ethical issues and a summary of the study.

## 4.2 Research design

The purpose of this study is to explore and understand the educational components of the acceleration programme at one successful special school in the USA, and the potential of transferring these components to the Saudi context, all of which will be investigated using a qualitative approach. Creswell (2014) stated that a qualitative approach is fundamentally carried out for exploratory purposes, in order to build a holistic picture of the phenomena through the eyes of the participants and their points of view, as well as the researcher's interpretations. He added:

> The social world can be understood only from the standpoint of the individuals who are part of the ongoing action being investigated and that their model of a person is an autonomous one, not the plastic version favoured by positivist researchers (Cohen et al., 2007, p.19).

What is more, those investigators who favour the subjectivist approach, which allows them to see social inquiries as humanly created, will select qualitative approaches (e.g. case study) (Burrell & Morgan, 1979). In addition to this reason, I first intended to explore the educational components of the US school, and so I gathered the school staff's opinions and experiences about the educational setting, leadership and personnel, identification process, curriculum, and programmes. Secondly, I examined the extent to which the identified components might transfer to the Saudi context, which has not yet established an intervention for accelerated gifted students within universities.

Qualitative studies are seen as the most appropriate for understanding social phenomena (Savin-Baden & Major 2013). Greenfield (2004) explained that social reality is invented by organisations. With the school processing the education in a lived experience, and the knowledge constituted by understanding the meaning of the process or experience, 'Multiple realities are

constructed socially by individuals' (Merriam, 1998; p. 4). In this respect, it is believed that a qualitative approach embraces the purpose of this study and assists in answering the research questions. So I undertook 'an effort to understand situations in their uniqueness as part of a particular context and the interactions there' (Patton, 1985 cited in Merriam, 1998, p. 6). Therefore, I decided to visit one successful school in the USA in order to collect data in a natural setting to understand the phenomenon from the main sources of information and without the intervention of the researcher, as trustworthiness is fundamental. (Bryman, 2012; Creswell, 2014). The visit allowed me to see people acting purposely in order to make meanings of their actions and activities; they constructed the phenomena and were not 'passive dolls of positivism' (Cohen et al., 2007; p. 20).

Cohen et al. (2007) identified the main methods for collecting the data in the naturalistic paradigm such as participant observation, interviews, and conversations, documents and field notes, accounts, and/or notes and memos (p. 170-171). Therefore, I conducted semi-structured interviews, observation, and document analysis in order to build principles that might assist a better understanding of the US school's components, and its potential transferability to the Saudi context. This understanding might lead to establishing such schools in Saudi Arabia.

### 4.2.1 Research questions

Through reviewing the literature on gifted provision in Saudi Arabia, I reached a main topic to be studied. The research questions to be investigated as main research questions are as follows:

1. What are the key educational components of a highly acclaimed American school specialising in accelerated programmes for gifted students?

2. From the perspectives of educational experts in Saudi, to what extent could these components be transferred and applied within the Saudi educational system?

In order to answer these questions, I divided the study into two main stages:

1. Stage One was conducted in a highly acclaimed and successful special school in the US. I carried out a case study to gain an in-depth understanding of how one particular special school works. I interviewed staff who worked in the school and sought to understand their opinions

and experiences about the aspects and operation of the special school in terms of educational

setting, leadership and personnel, identification, programmes, and curriculum. I observed the

daily routines and operations of the school, collected documents, and took photographs to

capture events to understand the school setting and the facilities that support their curriculum.

Then I developed a set of special school principles to present to Saudi experts in Stage Two.

2.  The second stage was conducted in Saudi Arabia. I developed a set of interview questions

    derived from the principles in Stage One in order to examine the transferability of the US

    school's components to the Saudi context. I took into account aspects mentioned by Renzulli

    (1999): 'local beliefs, resources, demographics, state guidelines, and local politics' (p. 38). I

    sought to explore the experts' opinions through in-depth semi-structured interviews about the

    proposed components regarding their feasibility, appropriateness, and potential applicability to

    the Saudi educational system. The design of this research lends itself to the fact that Stage One

    is not balanced with Stage Two. As in Stage One, I immersed myself in the context of the US

    school, I made observations, studied the documents, and interviewed the key people. During

    Stage Two, I methodologically focused purely on the face-to-face semi-structured interviews

    with the key experts in the Saudi system. Table 4.1 shows the data collection methods, the type

    of data yielded, and analysis strategies in both stages of this research.

Table 4.1 The design of Stages One and Two

|  | Stage One | Stage Two |
|---|---|---|
| **Data collection methods** | Case study in one of the US schools that applied acceleration programme and fulfil the criteria (section 4.5).<br>Semi-structured interview with seven of the school staff who volunteered in the study; some questions reached saturation point; however, the structure of the interviews was adapted depending on the information needed.<br>Observing the school and the classes.<br>Collecting relevant authentic documents and photos. | Interviewing the experts in Saudi Arabia to examine the validity of such projects.<br>Semi-structured interview was used with ten volunteering Saudi experts. After the eighth interviewee I reached saturation point; however, I interviewed two more in order to ensure the adequacy of the data. |

|  | Stage One | Stage Two |
|---|---|---|
| **Type of data yielded** | Narrative data that described the educational components of the US school, then it led to a set of principles. The principles shape the interview questions for Stage Two. | Narrative data showed the feasibility of adapting the US school in the Saudi context. |
| **Analysis strategies** | Constant comparison method<br>Thematic analysis<br>Inductive analysis | Deductive analysis using the predetermined components from Stage One |

## 4.3 Research method

### 4.3.1 Case study

Case study has the essential features of a qualitative approach: it employs an inductive orientation to understanding the phenomenon, and the researcher is the primary instrument in collecting and analysing the data in a bounded context, in order to gain rich interpretative findings (Baxter & Jack, 2008; Merriam, 1998). Case study can be utilised to understand an organisation, system, school, event, group of students, teachers, or even interventions. Case study constitute an effective approach when investigating an educational process (Verma & Mallick, 1999). However, this research is conducted through a single descriptive case study in order to gain a deep holistic understanding of a gifted special school (Baxter & Jack, 2008).

Yin (2012) defined the case study as 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (p. 13). Merriam (1998) defined the case study as 'an intensive, holistic description and analysis of a single instance, phenomenon, or social unit' (p. 27). However, a definition by Miles and Huberman (1994) simply assumed that the case study is 'a phenomenon of some sort occurring in a bounded context'; this could be the closest meaning to the application of the case study method in this research, where the school components are the phenomenon and being a special school in the USA with some features forms the bounded context (features explained in section 4.5

Case study is more suitable when the researcher wishes to cover contextual conditions that are relevant to the phenomenon under study (Baxter & Jack, 2008). Therefore, it may assist in

analysing the processes occurring in a gifted school which fit with the interest of the current study, focusing on how to establish and run a special school for gifted students. The end product of case study is more important than the method used to collect the data (Merriam, 1998). In this case study, the intensive descriptions of a unit or system under investigation could potentially influence policy, practice, and future research (Merriam, 1998). Therefore, the product of this study is richly descriptive, with words and figures conveying the phenomena. The end product of this study would be some proposed components of a special school for gifted students that may be transferable to Saudi Arabia.

Case study is effective with research questions that ask 'how?', so it is suitable for the researcher who wants to know more about the processes and embedded factors in a context (Cohen et al., 2007; Merriam, 1998). The acceleration programme that operated in the US school and the potential of the educational components' transferability to the Saudi context school were the central problem. Dismantling the components of a particular gifted school in the USA was the main process that helped to understand the degree to which the components of the school might be applicable to the Saudi system. The targeted school was small, with thirty-five staff and fewer than fifty students, therefore examining the components and understanding the school characteristics were more manageable than in a large school.

In a case study, the phenomenon should be bounded, and that is one of the strict conditions to decide whether the instance under investigation is a case or not (Baxter & Jack, 2008). The targeted school that I decided to explore in Stage One of this study was bounded in location, time, number of staff, specific curriculum, unique programme, and policies. Thus, Stage One was a case because of the following:

> If the phenomenon you are interested in studying is not intrinsically bounded, it is not a
>
> case … if there is no end, actually or theoretically, to the number of people who could be
>
> interviewed or to observations that could be conducted, then the phenomenon is not
>
> bounded enough to qualify as a case (Merriam, 1998, p. 28).

In order to retain the limited scope of the case, this research has confined the case to the following conditions: to be one highly successful special school in the USA, specifically for gifted students, and to include a special programme that is implemented for accelerated students. The time of the

investigation visit will be during the school year (more information on the identification of the case school in section 4.5 ).

A case study can provide sources of evidence: direct observation of the event and interviews with the people involved in the event could assist better understanding. Nevertheless, I was aware of some concerns about applying a case study approach. Case study are less desirable to some researchers (Yin, 2014). The approach has been criticised for the type of data that it produces, its lack of rigour, generalising issues (see section 4.9 and unmanageable methods (Yin, 2012). To address the issue of rigour, I designed a protocol in order to ensure that the case study was systematic. The protocol included the visit, and I constructed a number of questions to be answered by participants once I began fieldwork. The visit schedule in appendix 3 shows some aspects of the systematic approach that I followed in order to maintain a rigorous case; as a result, the visit was carried out as planned. In addition, I took careful notes from observations, whether as raw notes or formal observations, and I strove to remain neutral and factual in composing the narrative. A case study can be extremely time-consuming and can lead to massive documents, but I attempted to avoid this by providing a rigorous protocol (a mind map for visiting, advance coordination between myself and the school principal, and particular questions to be answered once I had arrived at the school; see appendices 1 and 3). In addition, defining the case helped save time; the case in this study is a single case with multiple components to be examined: educational setting, identification, leadership and personnel, programmes, and curriculum. Therefore, I defined the case as a successful school within a university that implements an acceleration programme for gifted students in the USA.

## 4.3.2 Case study in gifted education

Qualitative case study has a unique contribution to make in the field of gifted education. It can benefit the gifted education field by transferring findings to other contexts (Mendaglio, 2003). Coleman (1994) used qualitative case study to understand teachers' emotional experiences in instructing gifted students, Further, Coleman (2001) conducted an ethnographic case study to understand gifted students' social experiences in a residential school. He stated: 'I took field notes as a participant observer, conducted interviews, and collected documents' (p. 165). Coleman found that the social system as a cultural category in the gifted school valued diversity and advanced

learning. He argued that the findings of his study were transferable to other contexts, as he noted that his study reflected students' experience in one residential school that might happen in subsequent years at the same school. Therefore, the qualitative case study allows researchers, through interviews and observation, to let others hear the voice of the participants, which leads to deeper understanding of giftedness (Mendaglio, 2003).

Mendaglio (2003) searched for the adoption of a qualitative case study in gifted education and found that it had been used to investigate giftedness phenomena. VanTassel-Baska (1989) conducted a qualitative case study in order to investigate the influences on talent development in disadvantaged gifted students. In further research, VanTassel-Baska (2000) and her associates used a qualitative case study to examine the impact of certain curricula on schools. Furthermore, Rogers (1998) applied a qualitative case study to understand adult productivity.

Hebert and Beardsley (2001) conducted a qualitative study to understand the life experiences of black gifted children living in rural poverty. Using interviews and observations, they tried to understand how these factors influenced their academic achievement. They stressed the usefulness of photographs in the qualitative case study for capturing the events that the researcher would keep in memory at the final stage of the research process.

In contrast, quantitative research cannot access the lived experience of gifted schools and students. The rigid design of quantitative research does not allow the researcher to design the research process in a flexible manner and this could affect the outcomes of this research.

No method from the above-mentioned studies have been used for the case study to examine the transferability of specific educational intervention between two different contexts, particularly in the field of giftedness. Therefore, choosing this method might add deeper understanding through the exchange of knowledge between two countries, the potentiality of one context to adopt new concepts, and an in-depth consideration of the cultural differences. To sum up, this study used a case study in order to understand the school components and collected empirical data to reflect what occurred in the research context by using multiple methods (semi-structured interviews, observation, and document analysis) (Stake, 1995).

### 4.3.3 Saudi experts' opinions

In order to address the second research question, I decided to interview key educational experts in Saudi Arabia who were working in the field of gifted education. The experts were purposely selected in order to access the 'knowledgeable people' who have in-depth knowledge, power, and access to the network (Cohen et al., 2007):

> Logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research (Patton, 1990; p. 169).

The Saudi experts were those who held a PhD or relevant degree in gifted education or an equivalent relevant discipline, had reasonable work experience in the gifted field, and worked in a field relevant to the Ministry's policies and regulations and/or relevant to the universities where the special school could be created. As the research progressed, new relevant issues to the research purpose might be discovered which could lead the researcher to more sampling (Schatzman & Strauss, 1973). Some snowball sampling did emerge during the interview process with the Saudi experts (Cohen et al., 2007), as one of the Saudi experts recommended an expert in adopting international programs within the Saudi context (Glaser, 1978). Consequently, I decided to interview him. The total number of experts who volunteered to be interviewed was ten. After the eighth interview I reached saturation point; however, I added two experts in order to assure myself that I had reached saturation.

Due to gender-related segregation in education in Saudi Arabia, a mix of male and female experts would be necessary and this was achieved in order to gather a more comprehensive dataset. Therefore, interviews with experts allowed me to be closer to the respondents and to do considerable probing. Table 4.2 shows the characteristics of the sample for Stage Two.

Table 4.2 The targeted Saudi experts

| Participant ID | Gender | Qualification | Position | Reason for selecting this expert |
|---|---|---|---|---|
| Ex1 (Expert 1) | M | PhD | General Manager. | He is the GM of the body who regulates gifted education in Saudi Arabia. |
| Ex2 | F | MA | Same position as above. | Same as above but in the female segregated section. |

| Participant ID | Gender | Qualification | Position | Reason for selecting this expert |
|---|---|---|---|---|
| Ex3 | F | PhD | Dean of Academic Development in one of the prestigious Saudi universities. | She is familiar with the process of introducing a programme for gifted students into the university. Plus, she worked as s gifted programme director for many years. In addition, she is experienced in adjusting international programmes to the Saudi context. |
| Ex4 | F | PhD | Deputy Dean of Gifted Education, in the female section in one of the prestigious Saudi universities. | In addition to her position, she worked as a director for the enrichment programmes in the university for many years. |
| Ex5 | M | PhD | Consultant for the general secretary in one of the main bodies that provides education for gifted students. | In addition to his position, he has experience of contracting with international organisations for gifted education. |
| Ex6 | M | PhD | Director of the gifted education centre in the male section. | In addition to his position, he has experience of developing a gifted curriculum. |
| Ex7 | M | PhD | Director of Gifted Programmes in one of the prestigious Saudi universities. | He established a new centre that served gifted students in one of the Saudi universities. |
| Ex8 | F | MA | Assistant to the General Manager for Gifted directorate in one of the main bodies that provides gifted education. | She is one of the main members of the Acceleration Committee in the MOE for female section. |
| Ex9 | F | PhD | Vice-Rector's assistant for Academic Support and Student Services in one of the prestigious Saudi universities. | She is responsible for fostering creativity and innovation among the students in one of the Saudi universities. |
| Ex10 | F | PhD | Gifted programmes director in one of the prestigious Saudi universities. | She is assigned to managing the gifted programmes due to her work experience with gifted students in the USA. |

In order to simplify the concept of the US school for the Saudi participants, I provided them with a document in advance and by hand before the interview, to familiarise them with the main features and characteristics of the US school. The document content was derived from the main themes and principles (see appendix 9); I asked them to read it and to see some images of the school before interview. For example, I included the information about school programmes mentioned in the data; I elaborated on the function and capacity of each programme so that the participant was aware of the nature of the programmes that the school delivers; and so on for the remaining themes and categories. Table 4.3 presents the themes and categories addressed in each subheading of the document that I provided to the Saudi participants.

Table 4.3 The themes employed in the document for Stage Two

| Subheading in the document for the Saudi experts | Themes that have been addressed | Categories that have been addressed |
|---|---|---|
| What is this school? | Educational setting<br>School programmes | Location, funding, TS, EEP |
| The purpose of the school | Educational setting | Purpose of the school, goals |
| | School programmes | TS, EEP, the Academy, Summer School and Saturday School |
| | Counselling, Identification process | Counselling services, social and emotional needs |
| Where is this school located? | Educational setting | Location, partnership, resources |
| Who works at this school? | Leadership and personnel | Roles and tasks, recruitment, personnel qualities |
| What curricula do they provide? | Curriculum | Syllabus, strategies |
| Number of students | Educational setting | Capacity |
| Registration requirements | Identification process | Students' characteristics, admission criteria |
| What is the significance of this school? | Educational setting | Purpose of the school |

## 4.4　Instrumentation

### 4.4.1 Interview

The interview is a powerful and flexible tool for qualitative studies. It enables the researcher to use their sensory channels, whether verbal or non-verbal, spoken or heard, in order to collect the data and understand the participants' contributions (Cohen et al., 2007). In addition, it allows the participants to express their knowledge, information, opinions, beliefs, preferences, feelings, and conceptions about the phenomenon under study; therefore, it enables them 'to discuss their interpretations of the world in which they live, and to express how they regard situations from their own point of view' (Cohen et al., 2007, p. 368). However, the researcher has to be aware that bias needs to be recognised and controlled.

There is agreement in the literature about the definition of the interview. There are similarities between the definitions in that they require the presence of the interviewer and interviewee as the main components of the structure of the interview, and the existence of transmitted information between the parties. Thus the interview can be defined as follows:

> A particular medium for enacting or displaying people's knowledge of cultural forms, as questions, far from being neutral, are couched in the cultural repertoires of all participants, indicating how people make sense of their social world and of each other (Barker & Johnson, 1998, p. 230).

Interviews are constructed and organised in advance and are not like a daily conversation. They can be affected by many factors, such as the social distance and mutual trust between interviewer and interviewees, as well as the interviewer's control, whereby the researcher as interviewer can control the structure of the interview while maintaining the spontaneity that permits the researcher to focus on complex issues. Cannell and Kahn (1968) defined the interview as follows:

> A two-person conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information, and focused by him on content specified by research objectives of systematic description, prediction, or explanation' (cited in Cohen et al., 2007).

The present study adopted Cannell and Kahn's definition as being the most suitable for the study in terms of its emphasis on three important aspects: systematic description, prediction, and explanation. This research will describe the components in the targeted special school in Stage

One, then test its transferability to the Saudi context by presenting the components to the experts in giftedness in Saudi Arabia in Stage Two.

From the point of view above, and besides document analysis and observation, I made a decision to choose the semi-structured interview as the main tool in Stage One, in order to collect data and explore the components of the targeted special school in the USA. In Stage Two, I also used semi-structured interviews in order to understand and explore the potentiality of the components' transferability to the Saudi context.

I utilised the semi-structured interview because of its capacity to deliver rich data from the participants' point of view about the phenomenon under investigation. The open-ended questions allowed me to cover the most important topics that were relevant to the research, plus asking 'why' questions in order to get deeper insight about issues under study. What is more, open-ended questions permit the participants to talk about their opinions and experience in depth (Bryman, 2012; Drever, 1995). The semi-structured interview also allows the following:

> Flexibility rather than fixity of sequence of discussions, and it also enables participants to raise and pursue issues and matters that might not have been included in a pre-devised schedule (Cohen et al., 2007, p. 182).

Therefore, I decided to utilise a semi-structured interview, where the question order did not have to follow the exact sequence that was outlined in the schedule. Nevertheless, it followed the interview context and the interviewees' answers, with the interviewer picking up on things said by the interviewee for missing issues (Bryman, 2012).

Semi-structured interviews need to be general and not too specific in order to answer the research questions, and should follow a guide of topics to cover in the actual interview (Bryman, 2012). Therefore, the interview was divided into three sections, each section targeting a certain kind of staff member in the special school (director, administrators, and teachers). The question themes were derived from the main components of the special school and followed the recommendations of Clark and Zimmerman (2002) and SEM model (see appendix 1).

In this current study in Stage One, the interview questions were derived from the research questions in order to make them valid, which took several stages of development through conversation with the supervisors of this study. The questions were reviewed by the supervisors at the University of Southampton and two experts in gifted education from Saudi Arabia who were

not participants in Stage Two. I received valuable comments that were employed to enhance the structure of the questions. The questions were written in English because the target sample in the US special school were English language speakers (see figure 4.1). In Stage Two, the questions were derived from the principles that emerged from Stage One data analysis. The question were translated into Arabic because the sample in Stage Two were Arabic language speakers, (see section 4.4.1 ).

In both stages, I used a voice recorder application in an android mobile phone in order to save the interviews and listen to them many times. An information sheet was sent out in advance and included information about the research aims and purpose, interview procedures, and so on (see appendices 4, 5, 6). In Stage One, I conducted seven interviews in the US special school and each took approximately twenty-five minutes to one hour. In Stage Two, I conducted ten interviews with a range of forty minutes; each transcript was around seventeen to twenty-two pages in length for the Stage One interviews, and twenty-eight pages in Stage Two interviews.

In Stage Two, interviews with experts aimed to supply this study with distinctive insights covering a whole set of issues that could not be obtained from other sources (Yin, 2012). In addition, the interviews were designed to help me make sense of the findings previously collected from the US case school, and to gain first-hand information from Saudi decision-makers as I sought to examine the feasibility of the school components. Conducting interviews with experts can be a challenging task, relying on the interviewees' experience of doing previous interviews, whether with the media or with other researchers; they can sometimes attempt to control the interview process, or even exit the interview before the researcher has covered all the topics. However, I was aware of this situation and had a back-up plan of finding an accessible person for follow-up conversations, as I had the contact information for the secretaries for each Saudi expert. Some of the experts asked for two separate visits and I was patient and did both visits, then integrated the records as one interview. My previous practices and experience in doing interviews from previous research supported the application of the interviews (see Bin Yousef, 2014). Most of the Saudi experts asked to complete the interview in their official offices, although two of them were conducted by phone out of preference. I reached saturation point during the eighth interview; however, I conducted two further interviews for assurance purposes. For pilot testing of the interview questions, see appendix 14.

The principles detailed in section 5.10 raised several questions to be addressed in the second stage of this research, which investigates how these components from an American school for gifted students could potentially be transferable to the Saudi education system from the perspective of Saudi educational experts. However, I converted the principles into questions, and adjustment to the culture and/or to the mission of the Vision 2030 were considered. Appendix 1 shows the questions raised by each theme which formed the interview schedule used in Stage Two of this research.

```
┌─────────────────┐     ┌─────────────────┐     ┌─────────────────┐
│      RQs        │     │                 │     │   Formulate     │
│ Derived from the│ ──▶ │ Determined      │ ──▶ │   Interview     │
│ literature      │     │ Interview       │     │ questions with  │
│ review          │     │ Themes          │     │ supervisors     │
└─────────────────┘     └─────────────────┘     └─────────────────┘

┌─────────────────┐     ┌─────────────────┐     ┌─────────────────┐
│ Modifying       │     │                 │     │     Revise      │
│ Interview       │ ◀── │  Pilot study    │ ◀── │   Interview     │
│ Question        │     │                 │     │   Questions     │
└─────────────────┘     └─────────────────┘     └─────────────────┘

┌─────────────────┐
│ Finalize Version│
│ of Interview    │
│ Question        │
└─────────────────┘
```
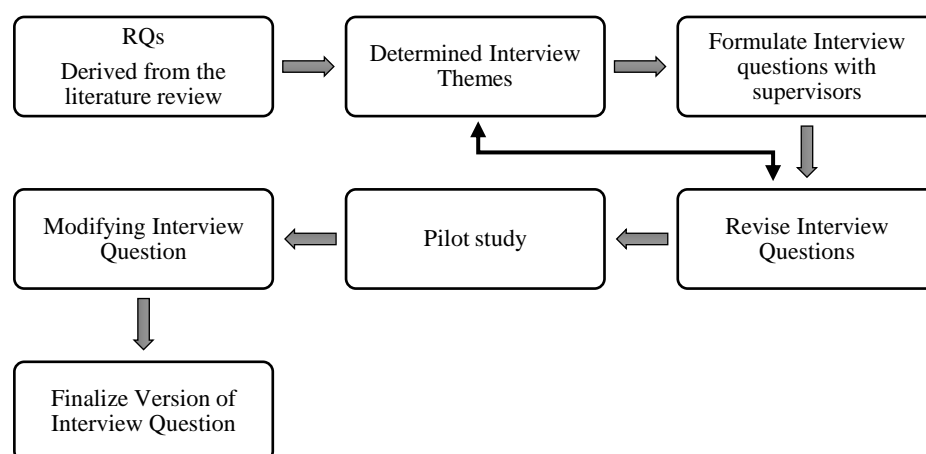
Figure 4.1 Process of the Stage One interview questions development (adapted from Bryman, 2012).

## 4.4.2 Observation

Observation is a further primary source of data in qualitative studies. It helps the researcher understand what is going on in a natural setting of the phenomena. The unique feature of observation is providing the researcher with an immediate record and awareness of the data that they gather, whereby the researcher can catch behaviours that can be taken for granted and expected, or go unnoticed (Cohen et al., 2007). Therefore, it was felt that human behaviour, in terms of the process of school, events, and actions, could be better understood when observed directly by myself in its natural setting. Observation would enable further interpretation of the phenomena, and could provide a considerable amount of data on observable behaviour, actions, and interactions. Therefore, the researcher could potentially see things that might be unconsciously hidden (Cohen et al., 2007). Moreover, this study needed to find out more about what the

participants in Stage One do and say and how they act, that may differ from what they say in the interviews or might not freely mention; thus, observation offered a reality check (Robson, 2002).

The data collected from the observation has strong ecological validity (Moyles, 2002), and the data collected can be factual (e.g. number of students in the classroom), events (e.g. conversations between teachers and students), or behaviour (e.g. teacher's characteristics). However, in this study, observation focused on all of these kinds of observable data. The observation form contained a section of facts, for example, the number of students in the classroom, type of facilities in the classroom, and layouts of the classroom and school. In addition, the form used in this study focused on events and contained a section to write narrative notes to help in describing different contexts (Stake, 1997) (see appendix 2). In addition, for these narrative notes and observed details, unstructured observation was utilised in this study (Bryman, 2012).

I made a decision to use observation as a supported instrument in Stage One of this research because it is essential, especially in the first stages of research, to help understand the context of the special school in the USA (Silverman, 2013). In addition, it would triangulate the data collected from interviews, documents analysis, and photographs, thus ensuring the trustworthiness of the findings (Lofland, 2006).

I conducted direct observations of the general arrangement of the educational setting, such as the school location and layout, classrooms, resources, facilities, and technology. Sketches of classrooms were drawn, descriptions of the resources on the walls and shelves were recorded (e.g. certificates and awards were hung on the reception wall to validate the school's claim of their success). Class instructions and interactions were observed in order to gain an understanding of what happened inside the classes. All of these aspects lent support to the shaping of an understanding of the components of the US school.

Denscombe (1998) mentioned that there is a possibility of researcher influence once the researcher is observing. However, I did not take part in the activity that I observed. I sat at the back of a classroom writing up what I saw, heard, or understood, regarding verbal exchanges between teacher and pupils (Cohen et al., 2007). The total number of hours of observation and fieldnote writing undertaken in the US school across the visit period was approximately ninety-three hours including direct observation and the time where I retrieved the moments that I had observed and

carried on writing up my recollections (see Reliability section). For pilot testing of the observation forms, see appendix 14.

### 4.4.3 Documents and photographs

'Documents, as the sedimentation of social practice, have the potential to inform and structure the decision which people make on a daily and longer term basis' (May, 1997; p. 157). Therefore, this study used documents and photographs as supportive tools for collecting data, paired with the other research instruments to help address research questions. This study used the documents and photos because they added significant clues about the research context. Moreover, they provided information that could not be gained through the interviews or observations, and perhaps they could help in understanding some aspects that I wanted to further figure out (Savin-Baden & Major, 2013; Silverman, 2013). The collected documents and photographs were from primary sources: the photographs were collected from the main location of the special school in the USA that was targeted for Stage One of this research and by my phone camera. The photographs were of the physical features of the school only and did not capture any individuals or material that would identify individuals (staff, parents, or pupils etc.). Additionally, the documents were published, while some were internal documents such as brochures and prospectuses written by the school staff for a restricted group of readers, such as meeting agendas that I gathered from the participants themselves. Certainly, the selected documents present some aspects of the special school; therefore, they are appropriate, relevant to the research purpose and 'within the bounds of the research's philosophical stance' (Savin-Baden & Major, 2013, p.409). The collected documents were authentic: they either had the logo of the school or an author. Nevertheless, I confirmed that the documents were genuine, credible, and had integrity (Savin-Baden & Major, 2013). The documents included map, school layout, published papers, brochures, meeting agendas, course syllabus, class rules and schedules, and counselling sessions and schedules (see table 4.10).

## 4.5    Sampling and data collection procedure

In this research, the sample is divided into setting and participants. For Stage One, the setting was one targeted special school in the USA which caters specifically for gifted students and implements a special accelerated programme during the calendar school year. Since the findings of this study

are not seeking to be statistically generalised, the setting does not represent the whole population (Cohen et al., 2007). This school represents the case for this study. The school is highly acclaimed and located at one of the leading universities in the USA, as shown on their website, where seven of the faculty members have won the Nobel Prize. In addition, the university is ranked one of the top fifteen universities in the world in 2017 based on the Shanghai Rankings Consultancy report.

Gaining access to the setting was a challenge and proved to be a long and slow process (Cohen, 2007). Indeed, I faced a number of obstacles in accessing a US school. Some of the schools were not ready to disclose their experiences, while others did not respond to contact via email. Therefore, I then went through many authorities to gain access to a school. First, I searched US national rankings for the best performing special schools for gifted students, which had been awarded medals for their performance and for how well they prepared accelerated students for college. Accordingly, through the website 'US News & World Report' (2015), which is a multi-platform publisher of news and information and publishes annual print and e-book versions of its authoritative rankings of Best College and Best Graduate Schools, I obtained a list of the highest-ranked special schools for the gifted. In the interest of saving time, I determined a specific targeted number of schools that I would contact, starting from the top of the list.

I ruled out a number of large and apparently complex schools. For example, I excluded a school on the East Coast due to its complexity in structure and large number of students. I believed that establishing an innovative institution in Saudi Arabia would be best served by starting small then growing with market demand. In the report issued by the Education and Employers' Taskforce on how schools should respond to the demands of the twenty-first century labour market, the chair of Education, Training, and Skills at the University of Oxford (Professor Ewart Keep) stated that any steps towards applying educational intervention relevant to the needs of the labour market should be cautious, small, and incremental. The report also revealed that the trend in the educational sector in relation to employment growth was to start small (Carberry et al., 2015). This lent support to the view that educational initiatives should start small to make sure of their suitability for the community's needs.

Then I contacted the schools on the list by phone and email. I emailed and phoned the first school and waited a couple of days to hear from them. If there was no reply, I moved on to the next

school, and so on. Unfortunately, some schools did not show their willingness to participate in the study, and some did not reply to my correspondence. After this attempt, and through supervision meetings, I was advised to contact the Saudi Embassy in Washington to facilitate the connection between myself and potential schools. However, this attempt did not succeed either and even the Embassy did not receive a reply from the schools. Subsequently, I contacted key 'gatekeepers' who worked within the gifted associations, whether in Saudi Arabia or the USA, and they facilitated contact with potential case schools in the USA. One of the gatekeepers in the USA linked me with the director of the school that ultimately became the case for this research. Following that, I sent a letter of introduction to the school director, and then the director of the special school asked for a formal letter that evidenced that I had gained ethical approval from the University of Southampton, which was provided. The director of the special school limited the duration of the visit to two weeks, and at a convenient time when the students had no examinations and the staff were not under pressure of planning or assessment (see table 4.4).

Doing research in a field setting requires prior reconnaissance, through which the researcher can get to know key participants in advance, and the participant sees the researcher face-to-face, whether physically, or through the internet. For reconnaissance purposes, therefore, I had a Skype meeting with the director of the school in advance before agreeing to the date of the visit. I thereby became acquainted with the school director, the relationship between both sides began to develop, and urgent questions were posed and answered. Subsequently, and after many emails between the director and myself, I made the decision to travel to do the fieldwork from 22 January to 5 February 2016. A setting for Stage One had been identified.

Before my arrival in the USA, I provided the director with a proposed plan that contained details for each day in the school (e.g. introductory presentation on the first day, time division between interviews and observation, determining the position of the interviewees) (see appendix 3). The director welcomed my proposal to conduct a case study in the school that she leads. Once I arrived at the school, and after introductory activities, a letter about voluntary participation in the interviews was distributed during a monthly meeting to all staff for them to sign. I then contacted the participants individually to allocate a suitable time and place to conduct the interview. All of the interviews were conducted in the first week of the visit. The interviews were conducted in the researcher's allocated office, interviewee's office, or a common room that ensured security and

privacy. All interviews were conducted in the school, although one of the participants decided to do his interview in his favourite coffee shop within the university campus. The interviews were conducted face to face and, with consent from participants, recorded on a voice recorder application in an android version of a mobile phone, and then transferred to the password-protected computer I was using. The interviews began with a brief introduction to the research project, and I then assured the interviewees with regard to confidentiality and anonymity issues. All the participants signed the informed consent form and agreed that the interview would be recorded for the purposes of collection and use of data. The observations were conducted in the school and in the area surrounding the school, and most of the classes' observations were conducted in the morning in the first session, at the back of the class where there was a back door for family or an interested member to join the class without disturbing the students.

Table 4.4 Identifying the case school: a chronology

| Key Dates | Efforts | Outputs |
|-----------|---------|---------|
| 1/Jul/2014 | I contacted some of the key leaders of G&T institutions in Saudi Arabia in order to explore the current situation in the field; whether there were any special schools for gifted, or whether any new developments were under way. | Determined the initial needs of the field in G&T in Saudi Arabia. |
| 13/Oct/2014 | I began contacting more than fifteen special schools for gifted in the USA by phone call and email. | Some schools could not accommodate me and others did not respond. |
| 1/Dec/2014 | I contacted the G&T 'gatekeeper' in Saudi Arabia. | It took about two months to find someone to link me to possible gatekeepers in the USA. |
| 18/Feb/2015 | Received a response from the Saudi Embassy in Washington: they agreed to help and contact schools. | Still no response from the schools, so I then considered gatekeepers. |
| 20/Feb/2015 | Started contacting G&T 'gatekeepers' in the USA who contacted me. Communication began with the director of the case school in the USA. | I was given three options of special schools; two could not take part but the third accepted (the case). |

Participants in this study consisted of staff who worked in the case special school located in one of the leading universities in the USA: school leaders, classroom teachers, and administrators. Therefore, the sample selection procedure was convenient, where convenience sampling is a strategy normally used in a case study. The targeted school was one which was available and accessible at the time and which had agreed to participate, as described above. Nevertheless, I was mindful that the generalisability from this type of sample is very limited; however, a case study is not a design for generalisation, it is for particularisation (Stake, 1999). The school offered me a suitable place to visit, sufficient time to concentrate on data collection, and a suitable capacity of staff and student bodies, to be able to gain sufficient understanding of the school's structure and processes. A larger school would not have been manageable for a researcher working alone.

The sample in this stage was divided into three categories: the leadership, administrators, and teachers. The total number of staff who worked in the special school was thirty-five; twenty-one are full time and fourteen are part time; seven of them volunteered to take part in the interview. Therefore, the sample represented twenty per cent of the total population (see table 4.5).

Table 4.5 Numbers and categories of the sample

| Category | Position | Population | Sample size | Percentage |
|---|---|---|---|---|
| Leadership | Director /Associate director | 35 | 2 | 5.7 % |
| Administration | Academic counsellor/ Counsellor intern | 35 | 2 | 5.7 % |
| Teachers | History/Ethics/ English | 35 | 3 | 8.5 % |
| Total | | 35 | 7 | 20% |

The participants differed in their job responsibilities, background, and job type. Four of the participants held a PhD, two held an MA, and one held a BSc. In addition, five of the participants had a full-time dual job in the school and two of them worked part time (for more detail, see table 4.6). When conducting the interviews, I took into account time, cost, and distance, so these seven participants were suitable to constitute the sample, in terms of geography/travel.

The official visit took nine working days; the daily routine of the visit was organised as in the visit schedule (see appendix 3). I attended the school daily at 8.00 am, sitting at the assigned desk. The desk was in an office that had two doors, one of which opened on to the finance office

which then led to the main corridor, reception, and the academy entrance. I typically left school at 3.00 pm at the end of work-hours to continue writing up my notes and observations. The back door in my office opened on to the teachers' room, which had a private back entrance to the class of the Transition School. I used this back door to the class when I completed the observations. Some observations were made during morning lessons that took forty minutes each. In addition, some observations and recorded notes were made when the counsellor was having an informal session with the students. I attended one faculty monthly meeting and collected some documents and the agenda; I also attended and observed the monthly staff gathering. The building itself, the facilities, classrooms, offices, and amenities were observed and photographed. The seven interviews each took between twenty-five minutes and an hour. Emails were sent to some participants in order that they explain unclear or missing information. The transcriptions amounted to eighty-eight pages. I had many informal conversations with the financial team, the secretary, the director's assistant, and the receptionist, and these all helped in the understanding of this research's organisation and these notes were added to the data which were collected. All these elements helped me to acquire extensive data, demonstrated in the next chapter.

Table 4.6 Sample characteristics

| Code | Position | Degree | Job type |
|------|----------|--------|----------|
| P1 | Director | Professor in Educational Psychology | (Full Time) FT |
| P2 | Associate director | PhD in History | FT |
| P3 | Academic counsellor | MA in Clinical Psychology | FT |
| P4 | Counsellor intern | BSc in Creative Writing | FT |
| P5 | English teacher, EEP and TS director | PhD in American Literature | FT |
| P6 | History teacher | PhD in History and Theology | PT |
| P7 | Ethics teacher | PhD candidate in Philosophy | PT |

### 4.5.1 Features of the targeted school

In this section, I describe some features of the targeted case school. However, in order to maintain ethics and to protect the identity of the school, I cannot report information that could reveal the

school's name or location. Therefore, I am not able to publicly disclose the resources that have been used here.

The case school had disseminated through its website and publications the information the fact that it was a leader in the USA for developing programmes that serve highly capable young pre-college and college students. The school had been undertaking research into its own practices since 1980, extending over some thirty-five years. As part of this, three follow-up studies had been completed on the school's alumni; the first was a fifteen-year follow-up study of gifted students in the Early Entrance Program (EEP). This study employed three comparison groups: students who were non-accelerated but who had a scholarship to another programme, students who had qualified for the school accelerated programme but who had continued to high school, and students who had entered the accelerated programme at the case school. The study found that most respondents were satisfied with their decision to accelerate or not accelerate their programme. The accelerated students had entered graduate school in significantly greater numbers than the other groups. The second follow-up study was conducted on ninety-five individuals who had graduated from the school and it tracked their work path, education, and social affiliations. The results showed that peer cohort, support of staff, and intellectual stimulation were positive factors of the programme. Graduates exited with high GPAs (Grade Point Averages), and were satisfied with their professional achievement.

The third study was a thirty-five-year follow-up of the first school alumni. The study employed a mixed method that aimed to explore the impact of the school programme on the participants' academic and professional lives. Data was collected through a web-based questionnaire and semi-structured interviews of both random and special case samples of willing participants. The questionnaire was sent to 587 alumni of whom 202 responded. The study revealed that most participants led happy and productive lives, whether through employment, income, or degree attainment. In addition, most of the students in their sample reported a positive social experience while at the school because of being with similar peers.

There are a number of concerns about these three studies, however, because the research did not show who the respondents were. The sample could have been biased towards those who had a good experience at the school. It was also not clear whether the three studies had used the same or different participants. Nevertheless, their having done research into their own programmes

and practices gave me further confidence in using this school as a case. They had inquired into themselves and done research on their school, most of which had been published in reasonably reputable peer-reviewed journals (e.g. *Gifted Child Today*, *Roeper Review*, *Gifted Child Quarterly* and *Parenting for High Potential*).

It can be said that every educational institution has its strengths and weaknesses. For example, when Brody, Muratori, and Stanley (2004) reviewed literature on schools that delivered a distinctive approach to accelerated students, they found that while most entrants had succeeded in their lives without social or emotional problems, some students had been challenged with adjustment problems and low achievement. For this reason, studies such as these should be taken into account when testing the transferability of schools for the gifted, as some of the programmes may not be implemented in the right way.

The case school had a unique programme that was not found in any other state (as disseminated in the *Roeper Review*, 2015) which was a Transition School (TS) programme for students who had finished seventh or eighth grade (further explanations provided in chapter five). This programme worked as a bridge between secondary school and university, preparing students for college life. It included advanced curricula, consultations, activities, and preparation programmes. The school had two other programmes (the Academy, and Early Entrance Program (EEP) for students who had finished grade ten). Only fourteen schools offered such EEP programmes in the whole of the US (published in *Roeper Review*, 2015, see Jones et al., 2002). These programmes both support and align with this study's argument about having a special school that connects and prepares the Saudi accelerated students for university life.

The case school did not rely on IQ test scores as the main criterion for entrance. It adopted the view of some, for example Brody et al. (2004), who argued that high IQ score alone is not sufficient to succeed in such a school programme. They also considered other factors that could contribute to social, emotional, and academic success, such as levels of maturity, personal motivation, and achievement. These criteria are quite similar to those of the Saudi Ministry of Education, released in the instructional manual (appendix 10), for identifying and nominating the students for acceleration (see Aljughaiman & Ayoub, 2012). The Saudi Ministry's conditions were that the entrants should have a reasonable IQ score, pass the achievement test, have a reasonable

score in all other modules, pass the interview, obtain parent approval to enrol in the acceleration programme, and upload the Total Talent Portfolio (see appendix 10).

The features of the case school in terms of capacity, staff numbers and qualifications, and location within the university made it suitable as a potentially transferable case. As previously explained (see section 4.5), I believed that transferring a new educational intervention into a different context needed to be done on a small scale in order to test its feasibility. Once the practice was shown to be successful it could lead to stimulating experiments, but any steps that were relevant to the educational labour market needed to be small, cautious, and incremental (Carberry et al., 2015).

The school was therefore considered a suitable target site for practitioners, research and discovery of best practice in supporting highly capable young students (through my personal conversation with the school director). This was consistent with the school's statement of its threefold mission of teaching, research, and service. The evidence that this mission was taken seriously was their acceptance to be the case school in this study.

In terms of school leadership, the director of the school is an expert in the gifted education field. She received her master's degree in Gifted Education under the tutelage of Dr Joseph Renzulli, whose theories in gifted education influenced this study. She is a professor with extensive experience in gifted education and expertise in curriculum development. She has written web-based curricular guides which detail project investigations of pre-school, kindergarten, and first grade students and which have won national recognition from the National Association for Gifted Children (NAGC). However, due to the need for anonymity and confidentiality, I cannot reveal her name or location.

Through the school's website and publications, it was evident that some of the current and former students had earned awards from international or local companies or academic institutions, such as the Google Endowed Scholarship, Microsoft Endowed Scholarship, and State Opportunity Scholarship for STEM. The school itself had received NAGC awards for several years in different areas, with one of the school's research studies being awarded first place.

What is more, the school had adopted the NAGC standards for programme quality, which had already been adopted in Saudi Arabia (see section 3.4.3 ). This made it especially appropriate for my study. Therefore, visiting this particular special school for gifted students in the USA would

provide me with an opportunity to observe these standards live, in their original habitat, which could allow for a deep understanding of these standards (explained in chapter 3). A further relevant point is that the NAGC consider Renzulli's theories to be prominent in the giftedness field.

I found connections between Renzulli's model (SEM) and the school's processes and activities, both structurally and conceptually (e.g. portfolios, staff training, and enrichment activities etc.). Table 4.7 maps the connections.

Table 4.7 Mapping the connections between Renzulli's model and the case school

| Dimensions of Renzulli's Model (Figure 3.5) | Targeted School Practices |
|---|---|
| **Organisational Components** | The school has its own plan for team development. The school has a contract with qualified specialists for taught modules. The school has its own networks, whether locally or regionally. The school has involved parents in many activities and research. |
| **School Structures** | The school has applied an advanced curriculum for accelerated students that it delivers to the college level. The school has enrichment programmes in Summer and Saturday enrichment programmes. |
| **Service Delivery Components** | The school applies the Total Talent Portfolio, differentiation in learning, and individual and group advice. |

## 4.6   Data analysis process

This study utilised the constant comparative method by Glaser and Strauss (1967). The theory started to emerge rudimentarily in the data collection stage, where data analysis took place simultaneously with data collection (Creswell, 2014; Cohen et al., 2007; Merriam, 1998). I decided to use an inductive analysis approach in order to develop and integrate what I conceptualised from the literature reviews and what I could find from the collected data. This way helped to build a link between the new codes and categories with the existing one by Clark and Zimmerman (2002) and Renzulli and Reis (1997). Table 4.8 elaborates the components adopted from the theoretical framework. However, inductive analysis was utilised in order to explore more components of the

special school. Operationally, in this study the component means a part that combines with other parts to constitute the special school for accelerated students.

Table 4.8  Components adopted in this study

| Components by Clark and Zimmerman (2002) | Selected Components by Renzulli and Reis (1997) | Initial Components adopted by me |
|---|---|---|
| Educational setting and administrative arrangements | Organisational components: procedures for staff teaming and interaction, material, data base, community involvement. | Educational setting |
| Teacher selection and strategies | | Leadership and personnel |
| Student identification and characteristics | Service delivery components, Total Talent Portfolio (TTP), Curriculum modification techniques, Enrichment learning and teaching. | Identification |
| Curriculum content | School Structures; Enrichment cluster, Regular curriculum, Continuum of special service. | Programme and Curriculum |

The constant comparative method was suitable because it helped me to generate concepts and theories about what the gifted special school case looked like and how it worked. This concept and theory from the compared interviews also helped me to build an understanding of the special school to be examined in Saudi Arabia at a later stage. The field notes from the observations and the content of the collected documents were added to the categories that had been built from the interview analysis in order to give me an in-depth understanding of the special schools for gifted students. I used Nvivo software in Stage One data analysis in order to code and categorise the interview chunks (see table 4.9). The Nvivo software eliminated the time needed for the traditional manual tasks associated with qualitative data analysis; however, in the vertical layout, the codes were difficult to read and made the extracting operation for the themes indistinct. In addition, the software has limited ability to print the content of the codes and related themes. Plus, unlike manual approaches, it does not have the ability to evaluate the content of the transcript (Weitzman & Miles, 1995). Therefore, I turned to manual analysis in Stage one and then continued for the

analysis in Stage Two, so I could see the codes with categories and themes together in on sheet in the horizontal line.

The data in Stage One comes from various sources: semi-structured interviews, document analysis, and participant-observation. This is in order to gain convergence and corroboration and to minimise the impact of potential biases (Yin, 2014). The first step was to transcribe the interviews. In Stage One I used NVivo to assist in the analysis of the interviews, using thematic analysis. First I read and reviewed the transcripts. I then labelled the passages with a code clustering the codes into subcategories and categories, then assigned them to a theme, depending on the characteristics and the data of categories.

Table 4.9  Analysis process

| | |
|---|---|
| **Chunks from the transcription** | 'The school is under undergraduate academic affairs … The Dean has his goals for me … So I report to the Dean of undergraduate academic affairs ... But if I need support I've a supportive team, Education department is very supportive'. |
| **Codes** | Supportive parties/ hierarchy/ goals/ reporting system |
| **Sub-Category** | School goal/ internal operation/ partnership with relevant institutions |
| **Category** | Structural characteristic |
| **Key concept** | Educational setting |

In Stage Two, the spreadsheet programme Microsoft Excel was used for the analyses of the interviews; I found Microsoft Excel easier to present the themes for deductive analysis. After I had transcribed the Stage Two interviews, I copied the chunks of text into an Excel worksheet. Each sheet depicts the codes in columns, and the participants' IDs in rows. This form of analysis enabled me to see all the statements and the chunks together in a horizontal line for each participant and in vertical columns for each of the codes.

I imposed the components that emerged from Stage One to labels, when looking at the transcripts of the Saudi experts' interviews. The labels that I used in looking at the Stage Two transcripts were as follows: educational sittings that included physical and structural characteristics detailed in chapter five, section 5.3; leadership and personnel that included roles and qualities; identification process that included students' characteristics, admission process, and outreach strategies; the school programmes that included early entrants' intervention programs; and

counselling services and curriculum that included teaching strategies, syllabuses, and assessment. Therefore, I attached those labels to particular statements that the Saudi experts made in the transcripts. Simultaneously, I remained open for anything else that might come through. However, some of the codes emerging in Stage Two did not emerge frequently enough to be seen as a component. The findings of Stage Two were reported under headings according to those labels.

The data from the interviews was supplementary to the data from the documents and from observations. For the document analysis, I collected and compiled documents from the USA school that fitted with the theoretical framework of my study. My analysis entailed reading and reviewing the contents of the documents. I reviewed the chunks and paragraphs of the various documents to check the codes, categories, and themes from the interviews and vice versa (Glaser & Strauss, 1967). I sought out similarities and differences between the relevant labelled chunks from the different data sources. Table 4.10 shows the documents that were used in the data analysis and the counts of each of them, ending with the document ID that used in direct quotes. I predefined the codes that emerged from the interviews analysis, and I added the new codes and categories that emerged from the documents and observation data, so that the final theme that emerged would be from across three sources of data.

The constant comparative method (Glaser & Strauss, 1967) was employed in the analysis of Stage One data and Stage Two data. I constantly checked and re-checked the codes, categories, and themes that I derived from different data sources. Both developed and underdeveloped themes were present through the analysis process. I excluded the usefulness categories and codes outside of the scope of my research. The comparison process permitted me to finalise the concept of what a special school can consist of, which led to the construction of a set of principles.

Table 4.10  Documents used in the data analysis

| Type of document | Number | Document ID | Type of document | Number | Document ID |
|---|---|---|---|---|---|
| University map | 1 | Doc. 1 | Maths course syllabus | 1 | Doc. 9 |
| Transition School handbook | 1 | Doc. 2 | U 101 Course syllabus | 1 | Doc. 10 |
| Summer programme brochure | 2 | Doc. 3 | Meeting agendas | 2 | Doc. 11 |
| Saturday programme brochure | 2 | Doc. 4 | Consultation plan | 1 | Doc. 12 |
| History course syllabus | 1 | Doc. 5 | Consultation session schedule | 1 | Doc. 13 |

| Type of document | Number | Document ID | Type of document | Number | Document ID |
|---|---|---|---|---|---|
| Biology course syllabus | 1 | Doc. 6 | Early college programmes brochure | 1 | Doc. 14 |
| English course syllabus | 1 | Doc. 7 | The Academy programme brochure | 1 | Doc. 15 |
| Ethics course syllabus | 1 | Doc. 8 | School schedule | 1 | Doc. 16 |
| Photos | 34 | Total | 19 documents and 34 photos | | |

Figure 4.2 shows the process of grounding the findings in the literature. The small arrows refer to the sequence of the stages for reaching the research findings, beginning from the literature review to the Stage Two findings, while the long left-hand arrow review the sequenced stages refers to the connection between the literature review and the finding of Stage Two. All the arrows show how the findings from Stage One connect with the findings from Stage Two.
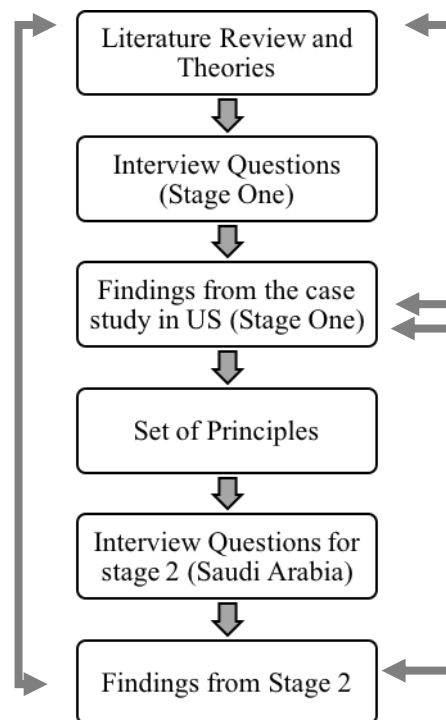


Figure 4.2 Findings of the study grounded in the literature.

## 4.7 Trustworthiness

All research areas are concerned with producing trustworthy and reliable findings, in order to trust the data collected from the field and to achieve validity in research. Careful attention to the study's conceptualisation and examination of the components of the qualitative study can help to assess its trustworthiness and reliability (Creswell, 2014; Cohen et al., 2007). Guba and Lincoln (1994) mentioned that the suitability of data collection instruments and analysis and the conclusion of the

study rely upon the data. In addition, what makes the case study trustworthy is the presence of the observer in the phenomenon context (Merriam, 1998). However, this study applied multiple instruments in Stage One, namely semi-structured interviews, observation, and documentary analysis, to triangulate the data and achieve knowledge from many sources, in order to establish internal validity and consistency. Furthermore, the initial findings of Stages One and Two were peer-debriefed (Boeije, 2002; Glaser & Strauss, 1967; Merriam, 1998). In addition, in an international conference, I had met the USA school director and discussed with her the initial components that emerged as she confirmed the interpretation that I provided for the school components.

## 4.8   Reliability

In a qualitative study, human behaviour is not static, and since this study is not an experimental study, results are not expected to be replicated. Achieving total reliability in a qualitative case study is impossible (Merriam, 1998) because social phenomena are multifaceted and highly contextual, and the collected data depends on the respondents. To achieve reliability, therefore, and in addition to the triangulation technique, this study provided a reasonable literature review chapter, and provided a description of the sample, context and findings in order to achieve dependable results (Guba & Lincoln, 1994).

According to the wishes of the school principal, in terms of engagement, I spent nine days in the case school; however, I arrived in the USA two days before the school visit day. I spent Saturday afternoon on the University campus in order to familiarise myself with the school location and took some of the photos of the school exterior layout, location, and facilities with permission from the school principal. I spent about seven hours daily collecting data, and at the same time sought to build rapport between myself and the informants. After I returned from the school, I spent a further four to five hours continuing to write up my notes to retrieve the moments and carried on sketching the classrooms.

The school characteristics (school size, number of staff, and number of students) permitted me to develop a deep understanding of what happened in the school, learning its culture and norms, and seeing the things that happened on a regular basis, such as student attendance, how classes began, what they did every day at break time, and how they acted as a team. Working with a small-

size school for a sufficient period helped give the research reliability and validity (see Glesne & Peshkin, 1992). Sufficient time could be allowed to see events and activities that regularly occurred, to draw what Stake (1997) called a 'petite generalisation'.

## 4.9    Generalisability

How can you generalise from one single case? The business of case study involves particularisation not generalisation (Stake, 1997). In this current case, I was aware that generalisation is based on a multiple set of cases that have replicated the same phenomena under different circumstances (Yin, 2014). However, Stake (1999) emphasised understanding the uniqueness beyond every case study. Therefore, the case in this study is generalisable to theoretical propositions and helps generalisable theory not to extrapolate probabilities (Yin, 2014). I intended to explore in depth the US case, not to generalise the findings so much as to provide an example of valuable practice for benchmarking purposes.

Generalisation in this current case was in the theory itself (analytic), not in the wider population, since this current case is a unit for analysis and is not representative of the whole population; in other words, it is not a sampling unit. It is an opportunity to shed light on the extent to which the experience of the US special school for accelerated students could be extended to the Saudi context. I believed that exploring the components of this unique school would help establish context-specific practices in Saudi Arabia. Yin (2014) pointed out that the theory that goes into the initial design of a case study would form the groundwork for analytic generalisation. Therefore, the Renzulli and Reis model and Clark and Zimmerman (2002) recommendations were that this study, adopted as a theoretical framework, would form the groundwork for any generalisation. There is potential for analytic generalisation from one single case study, as mentioned in Yin's illustrations (2014); however, this study aims to generalise to theory. On completion of the study, it was hoped that I would be able to reveal whether the experience of the US special school for accelerated students was transferable to the Saudi context.

Yin (2012) stated that generalisations could be made from a single case study, where he assumed that the case was not representing a sample of the population. However, the correct assumption is that statistical generalisation from sample to population is not the only way of

generalising findings in social science research. Such generalisations, furthermore, do not 'achieve the status of proof in geometry but by definition are probabilistic statements' (p. 20).

Using the theoretical framework is essential in analytic generalisation in order to build a logic that might be applicable to other situations (Yin, 2012). Therefore, I intended to show how the findings informed the relationship between particular concepts and theoretical constructs, i.e. a 'conceptual claim' (Yin, 2012). In addition, I intended to apply the same theoretical propositions to implicate other situations outside the completed case study where there may be similar concepts. I assumed that findings would lead to working hypotheses that might lead to new case studies (Guba & Lincoln, 1994). Yin (2012) mentioned a substantial example of analytic generalisation from a single case study: the best-selling research work of a political scientist about the Cuban missile crisis. The author generalised his findings by using theoretical propositions concerning the likely responses of national governments when involved in superpower confrontation crises. Thus, case study tends to generalise in other situations (Yin, 2012). Therefore, the generalisation would be on the theory itself, and on the events and activities that happened regularly in the case under investigation, in order to draw principles to shape my understanding of the case and its uniqueness (Stake, 1997).

## 4.10  Triangulation

Data collection procedures can have weaknesses and no single method can capture all the features of the phenomena under study; however, triangulation has come to be the search for additional interpretations, more than confirming the single meaning of phenomena (Stake, 1997). To reduce the risk of drawing conclusions from one single method, I utilised methodological triangulation (between-method strategies) (Denzin, 1994), as I collected data in several ways in order to make the findings as robust as possible. In addition to the three methods used in Stage One to triangulate the data, I reviewed the literature about the targeted school in the USA to familiarise myself with the school routine. It is acknowledged that participants in any situation can build ready answers that they have developed over time for speaking with researchers (Yin, 2012). However, since I was aware that this could happen, the data was collected from different sources, e.g. semi-structured interviews, observations, documents, and photographs. Theoretical triangulation was also utilised in order to interpret the data by using Renzulli and Reis's model (1997) and Clark and Zimmerman

(2002) recommendations in order to gain more of an understanding of special school components (Denzin, 1994).

## 4.11 Ethical issues

This study followed the ethical guidelines of the British Educational Research Association (BERA, 2011). In addition, it gained ethical approval from the Ethics and Research Governance Online (ERGO) at the University of Southampton. I was aware of the need to avoid harm to participants in all instances. An information sheet was distributed in order to inform the participants about the research aims and purposes and the intended uses of the data. Possible risks and the right to withdraw from participation were clarified (Bryman, 2012). This study maintained the confidentiality and anonymity that was declared in the consent form, where participants were informed about data security procedures (Cohen et al., 2007). The consent forms were collected at the staff meeting after prompts from the school director to the staff. She encouraged the staff to support my research and participate in my study as part of the school's mission. The study gained access permission from the special school in the USA (see appendix 4). In addition, and for Stage Two, the researcher sought an approval letter from the Saudi Ministry of Education (Department of Research) to access the Saudi authorities in order to conduct the interviews in the relevant organisations (see appendices 4, 5, 6, and 12). I was travelling internationally, and kept in regular contact with my supervisors during my stay in the USA and Saudi Arabia. I provided the University of Southampton with necessary contact numbers and email addresses prior to departure as part of the required risk assessment process.

## 4.12 Summary

To conclude, this research investigates the components of a special school for gifted students in the US, in order to examine their transferability to gifted education within Saudi Arabia. The main theoretical perspectives behind this study are the recommendations by Clark and Zimmerman (2002) and Renzulli and Reis's (1997) SEM theory (see table 4.11). This research utilised a case study design in the first stage, which was conducted in the US. Data was collected through semi-structured interviews, observations, the analysis of documents, and photographs. This research then

involved semi-structured interviews with Saudi gifted education experts in order to gather their

views on the extent to which components might potentially transfer to the education system in

Saudi Arabia.

Table 4.11 Summary of the methodology

| | |
|---|---|
| **Context** | USA<br>Saudi Arabia |
| **Methodology** | Qualitative |
| **Method** | Case study |
| **Study purpose** | To understand the components of the US special school for gifted students that could potentially be transferred to the Saudi context. |
| **Trustworthiness** | Triangulation<br>Prolonged engagement<br>Peer debriefing<br>Participants' quotes |
| **Instruments** | Semi-structured interviews<br>Observation<br>Analysing documents<br>Photographs |

# 5. Chapter Five: Data Analysis and Findings

## 5.1 Introduction

The main purpose of this study is to explore the components of one successful American school for gifted students to examine the extent of possible transferability of these components to the Saudi educational system. The research questions were: (1) What are the key educational components of a highly acclaimed American school specialising in accelerated programmes for gifted students? (2) From the perspectives of educational experts in Saudi, to what extent could these components be transferred and applied within the Saudi educational system? To answer the first question, multiple methods have been used, namely, semi-structured interviews, document analysis, and observation (see chapter 4 section 4.4 ). To address the second question, semi-structured interviews with Saudi experts were conducted (see section 4.3.3 ). In this chapter, the findings from the data collection activities are presented.

## 5.2 Stage One findings: What are the key educational components of a highly acclaimed American school specialising in accelerated programmes for gifted students?

In the following sections, I describe the main themes that emerged from the analysis of the data gathered from semi-structured interviews, observations and documents from the US school. The main themes were the educational setting, leadership and personnel, the identification process, the school programmes, counselling services, and the curriculum. The next section gives an overview of the school and useful information for the reader.

### 5.2.1 Overview of the US school case study

The findings of Stage One (my field notes and school documents) revealed that the US school selected for this study is regarded as a model of excellence and one of eleven such schools in the US (document 3, see table 4.10). As detailed in the school website, it provides special programmes for students who have been academically accelerated from seventh, eighth, or tenth grades in secondary high school until they completely move to college. The school consists of two main programmes: i) an Early Entrance Programme (EEP) which is preceded by a preparatory year called the Transition School (TS) for students in seventh or eighth grades; ii) the Academy

programme which is a special programme for students in tenth grade. The school provides an appropriate environment and programmes for those students. For example, in the Transition School an academic guidance programme is provided for one year in which students become ready to transfer to university life as EEP applicants. This school further provides a programme of special academic training in various subjects. Moreover, the school provides various enrichment programmes, such as a Saturday Programme and a Summer Programme. The school also focuses on the emotional and social development of students by providing a special guidance programme with the attendance of a special consultant to guide and help talented students. This special school is located in the centre of the university campus, in close proximity to the public libraries, the university buildings, and other facilities. There are specially trained staff working at this school who hold doctoral degrees in different specialisations.

The curricula vary according to the programme. For example, Transition School students study mathematics, statistics, English language, biology, chemistry, and physics. Other programmes consist of preparation guidance that facilitates engagement in university life, including academic writing and social etiquette. The teaching strategy emphasises the development of high-level thinking skills such as analysis, implementation, and evaluation, and it also focuses on discussion and research. One of the major outputs of the programme is a short research paper which evaluates the students' performance. In the following sections, I present the main components that were derived inductively from the data gathered from the semi-structured interviews, observations, and analysis of documents that addressed RQ1.

## 5.3    Educational setting of the US school

The descriptions in this section help to formulate an understanding of the educational setting of the US school, including the physical characteristics of the school (i.e. location, layout, and capacity), as well as the structural characteristics (i.e. the school purpose, mission, and vision). It therefore describes the internal operations that enable the school to run sustainably.

### 5.3.1 Physical characteristics of the US school

#### 5.3.1.1 School location

The school is located in the middle of the university campus. This location enables the school to be under the services umbrella of the university and have all the facilities that the school needs, such as academic resources like the university library, technical supplements like the Wi-Fi network of the university, or other amenities located on the university campus. The benefits of the school location were mentioned in documents 1 and 2, but participants P1, P2, P4, P5, and P7 also raised them. For example, P1 (Participant 1) the school director, pointed out the impact of locating the school at the university: 'The school is under undergraduate academic affairs ... But if I need support I've a supportive team. The Education Department is very supportive' [P1, interview].

P4, the counsellor intern, added to this:

> We have a lot of events where prospective students will come and be able to sit in on a college course, so we've been able to reach out to certain professors to let them allow these students to join their class. So I think just being a part of campus and being recognised in that way just allows us to be taken more seriously by the other departments [P4, interview].

What is more, the location of the school facilitates recruitment, as new staff sometimes come from the university. P2, the associate director, commented: 'I think I had a reputation for teaching, and so when they had a need for a history teacher here, they contacted the chair of the department, and I came in and interviewed' [P2, interview].

The participants' views and information were generally consistent with my observations. The school location is accessible, and the building is surrounded by libraries, science schools, the Psychology Department, the students' hub, and the student services centres. In addition, the bus stop is a three-minute walk away from the school. The location of the school benefits the students in that they do not have to go far to collect data for their course assignments. For example, the counsellor set the students the task of collecting data about different departments in order to give them practice in registering for their desired disciplines. Locating the school on the university campus facilitates the accessibility of the departments, and the staff were keen to help the students, 'getting them comfortable with accessing resources on campus that are available' [P5, interview].

However, during another event, specifically a consultation session, the counsellor asked the students to interview faculty members from different departments to give them practice in contacting and dealing with professors. One of the students stood up during the session and presented his journey; he mentioned his interview with one of the professors, but had had difficulty finding this faculty member's office due to the large size of the university campus. Therefore, it might be better if the students could accompany each other to complete their tasks.

As mentioned above, the school building is in close proximity to amenities including bookstores, international restaurants, and grocery stores. I was, therefore, able to spend my break-time in one of the coffee shops that was just a four-minute walk from the school, in order to write up my notes. In addition, the entire campus has Wi-Fi access, enabling connections to work, communications, and the use of Google Maps to explore the university campus. The university campus was in therefore self-sufficient, containing everything its members required.

The students continue to benefit from the school buildings and services, as mentioned in document 2, as they can get academic advice from the school counsellor until they decide on their major. Even though the students 'matriculate into the university, they can continue to make use of the facilities (a lounge, kitchen and outdoor area)' (document 2, p. 1).

The location of the school is depicted in a map (document 1) presented in appendix 7. The map shows the central location of the school where the main buildings are accessible and the bus stops are easy to reach, and it also shows the size of the school building in comparison to other departments in the university. In the next section, details about the school layout and capacity are provided.

### 5.3.1.2  School layout and capacity

Based on observation, the school is a wooden building in the middle of the university campus. A small plaque bearing the school name hangs to the right side of the main door. The school is an eight-minute walk from the central library. The school layout contains a reception area, one lounge, one classroom, a kitchen, toilets, and eleven offices (see figure 5.1). The capacity of the school is about thirty-five students for the Academy and fourteen students for the Transition School for each academic year.

As observed, the reception desk is at the entrance, as well as a sofa and a small console containing some brochures and flyers about the school. There are also framed photos depicting the achievements of the students and the school. To the right of reception is a lounge for the Academy and EEP students to meet, relax, and chat. The lounge has three brown leather sofas with cushions, one desk with a chair, one round table with two chairs, rugs, bookshelves, lockers, and framed photos of students. The size of the school is appropriate for the school capacity, and the school classroom has a multi-purpose function, as the school director used the TS classroom for staff meetings. P2 mentioned the possibility of sharing the space:

> It actually started in this office, because this used to be the teachers' room … all the
> teachers share this space, so when I came on board in 1990, I had a little desk over in that
> corner' [P2, interview].

To the left of reception is a classroom allocated for the Transition School. Its fourteen desks are arranged in a U-shape. At the back of the classroom are two leather sofas, desks with computers, bookshelves, and one large, round table in the middle. On the wall are some information boards, a wall clock, a whiteboard, and a projector. P7, the Ethics teacher, had received the benefits of some of the features:

> I know what it's like being an undergraduate, I know I can talk about the partying and
> playing video games and certain movies […] some movies work, but if they're rated
> 'R' movies then they can't [P7, interview]. (See section 5.8.2 for further explanations
about using some of these features in teaching).

The finance team has the first office to the right-hand side of reception. This opens into the teachers' staff room that contains desks and cabinets. The rest of the building comprises administrative offices and the director's office, behind reception. Having a lounge in the school is seen as an essential facility for the students as well; P4 explained this:

> But those students also tend to like, especially in their first year, to hang out a lot in the lounge
> area, you saw the lounge area, you know how that works, because they're not quite ready yet to
> make that leap to having all of these eighteen-year-old friends [P4, interview].
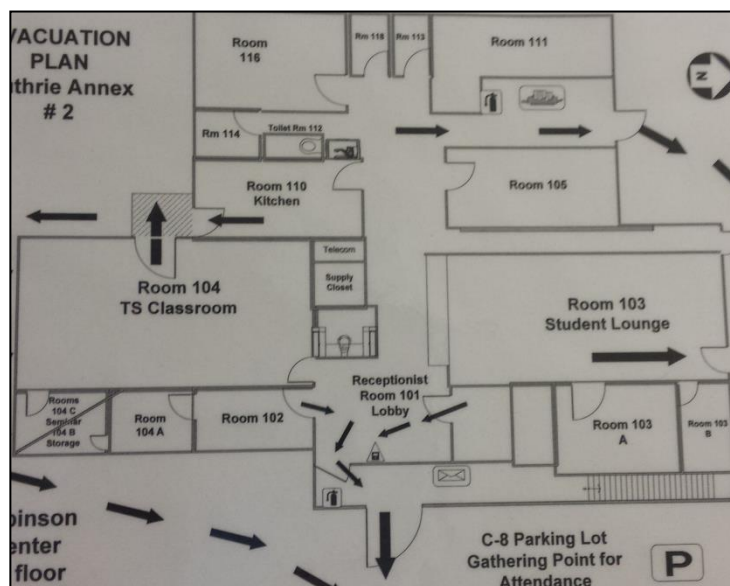
Figure 5.1 School layout

## 5.3.2 Structural characteristics of the US school

### 5.3.2.1  Purpose of the US school

The main purpose of the school was communicated through many resources (i.e. school website

and school handbook). However, there was a common understanding of the school purpose as

preparation for university. The participants P1, P2, P4, and P5 mentioned the purpose of the school

within their conversation. For example, P4 stated: 'I mean the whole school, the year of school is to

get them prepared for college, because it is quite a leap from just skipping high school entirely'.

[P4, interview].  Additionally, P5 who has a PhD in English and who holds a dual position in the

school as a director of the academy and as a teacher indicated advising services as one of the

purposes of the school, said this:

> Those students need a lot of support for that; we needed to provide advising for them.
>
> Somebody needed to be thinking about the social and the emotional aspect of what their
>
> transition was going to be, and that they needed this whole year of classes … so our role at
>
> that point is primarily about academic advising, and social, emotional programme [P5,
>
> interview].

P5 reported purposes beyond university preparation:

Also, then just the etiquette stuff, all that stuff that I was talking about earlier, and how to

be a good citizen in university, how to be mature in your interactions with professors and

peers, how to know what you are being expected to do [ P5, interview]

On other hand, P2 asserted their priority for the school: 'and that was the priority, we were

preparing these students for university work so we had to have a background in what it is to be a

university student' [P2, interview].

Reliably, and as summarised in the school documents collected (e.g. documents 2, 3, 4, 12,

14, and 15), the school has a number of purposes which meet a range of needs. In the documents,

the school claims to support the students in meeting their mental, social, and emotional needs; to

prepare the students to transition smoothly from high school to college; and to support research.

For instance, in document number 14 (see table 4.10) it states that the school is 'a site for research

and discovery of best practice of supporting highly capable young students' (document 14. p. 4).

However, the school also highlights the importance of the students' role in smoothing their

transition to college, as mentioned in document 2: 'Students must be responsible for their own

learning, be active learners, and collaborative peers' (p. 2). Therefore, students need to be very

careful about what kind of learning environment they seek, since the school preparation

programmes require a level of commitment and independence that is uncommon for students so

young.

### 5.3.2.2  School mission and vision

The mission of the school as set out in the school documents is threefold: teaching, research, and

service. The school aims to develop programmes that serve highly capable young pre-college and

college students. Those participants who mentioned the creation of school vision and mission were

P1, P5, and P2 due to their administrative positions. P5 elaborated on the process of preparing the

mission:

So before school started we all went and spent a night together in a cabin, spent a lot of

time making discussion about the mission statement, rewriting the mission statement, kind

of addressing what things we think need to be addressed [P5, interview].

Besides, P1 explained the aspirations behind the school mission:

The university mission of the centre is to be a resource not only for students, but also for teachers and educators, and academics, and should be a centre for research too, because we're a university unit, so we're doing research all the time [P1, interview].

She also expressed her role in the mission:

So when I came here, the school already had its early entrance programmes, and what I brought to it was some more integration of the school into the mission of the university, which was teaching research and service [P1, interview].

P5 emphasised the role of the school director in preparing the school statements: 'I think she has been actually very good about trying to both have a vision forward for the centre and to maintain it' [P5, interview]. P2 added on P5: 'We have a retreat in the fall where we as a staff get together and talk about our goals, and think about where we want to be in our vision' [P2, interview]. P5 indicated the relation between the daily tasks and the school mission and vision:

I think the principal has been actually very good about trying to both have a vision forward for the centre and to maintain it, and to be visual about staying on it, but also checking in at regular moments and making sure that everybody in the centre … [is] involved in settling priorities, and determining what they think is a good mission for us [P5, interview].

The application of the school's mission was demonstrated by their agreeing to be the case study for my research, as the school supports research in the field of gifted education, as revealed in the private conversation between myself and the director. Document 14 states that their aim is to 'maintain the … position as an internationally renowned centre of gifted education' [document 14, p. 4], and the school gave me a booklet about the school, which included information about the school programmes, admission criteria and school services, and the latest published research on the school. To support my role as a researcher, the school also offered me a desk in a quiet office (the administrative assistant's office), a MacBook laptop, printer, and Wi-Fi. Therefore, their mission to support research on giftedness was certainly being applied.

However, I observed that upon arriving each morning, the team headed straight to their offices where they switched on their computers, or went to their classes, without directions from

the leader, as it seemed that they already had a vision to follow. It seemed that they had lists of tasks that needed to be achieved by the end of the day. The team worked hard to complete their tasks, and prioritised work. I did not notice any informal conversations or chatting during work hours, other than during break-time when they met in the kitchen. The work was the staple of their day. I also noticed that the director of the school was the only one who came intermittently; she came at approximately 9.00 am from her office in the university to follow up with the team, present the vision of the school, and encourage staff to follow it. I understand that the director had other tasks to attend to at the university, such as lecturing in another building on the campus. She informed me that, in fact, she has two offices within the university: one in the School of Education and one within the (case-study) school and that explained her efforts in connecting the school mission with the university mission. However, the team kept the school running smoothly throughout the day.

### 5.3.2.3  Creation of the school goals

The staff who work in the school are required to meet occasionally to set the school goals. P1, P2, P5, and P7 mentioned their goals; for example, P1 indicated this:

> But at that retreat at the very beginning we set goals for ourselves, and some of them are short term goals and some of them are long term goals. So one of the long-term goals has been how do we reach out and increase diversity? So the goals are mutually developed by year, and some are ongoing, and some are smaller, shorter term, like having a newsletter for the school [P1, interview].

About monitoring goals achievement, she added: 'I have an advisory board that I have not called together yet this year, but again more informal input on whether or not we're reaching our own goals' [P1, interview].

P5 asserted that there is another type of goal:

> All of the students that are in transition school meet once a week with a faculty member … to talk about study skills, organisation …we came together as a faculty, and we're like okay, let's do it this way, I think there'll be some benefits. So there are some goals that are kind of happening over there [P5, interview].

The school works to achieve quality in their goals accomplishment regardless of having the key performance indicators. P2 explained the methodology of their work:

And we're not imprisoned by it; it's more of an inspirational goal … It's more of a direction, moving in certain directions … But I wouldn't say we come up with like specific numbers, or targets, or things like that, is more of a vision and a direction that we want to go [P2, interview].

On the other hand, the teachers' goals concentrate on the teaching quality, and the destination that they want to reach with their students; a quote by P7 illustrates this:

The goal is to get them to critically, like develop critical thinking and argumentative skills about ethical issue s… One of the hopes is that they see how pervasive morality is, like you're going to deal with moral issues and personal life with relationships with people at work, outside of work [P7, interview].

Consistently, the school goals are also mentioned in their publications. For example, in the TS programme handbook, the school revealed that their curriculum has been developed with several related goals; the foremost is: 'we are preparing our students to be successful undergraduate students at the University' [document 2].

Therefore, the school goals are aligned with the school purpose, mission, and vision, as all are constructed from one perspective, which is successful preparation of the students. The school goals are to focus on the internal process and are designed by the school staff themselves, as they know the school and the university more than anyone else. Therefore, developing the school's vision, mission, and goals does not rely on collaboration with others.

### 5.3.2.4 Funding and resources of the US school

The school relies on several types of resources in order to sustain itself. Financially, the school has funding from the state and this is separate from the university financial allocation, with the salaries paid by the superintendent's office. The administration staff P1, P2, P4, and P5 shared their information on funding. For instance, the school director stressed the importance of several financial aspects to begin such a school:

[S]o there needs to be a supportive structure to begin any of these programmes, there needs

to be a funding source … Because these students would be in public school, because

they're tenth and eleventh, we get funding from the superintendent's office, and therefore

when they go to college their parents are paying their tuition [P1, interview].

P4 agreed and added, 'so since we're taking the student out of the high school and putting them in our programme we get that funding' [P4, interview]. P1 commented on how the school covers the expenses:

In order to be equitable, you have to have enough tuition so you can give free tuition to

those who can't afford to come, and you can tip that out of balance. We do not want to be

seen as only in the late summer where only wealthy children can come, so we have to make

sure that I budget for students who can't afford to be here [P1, interview].


P2 agreed and commented that 'it's mostly self-sustaining and funding, and every programme is a bit different. The summer programme is entirely self-sustaining and is funded by student tuition' [P2, interview]. However, a statement from the Transition School handbook contradicts the previous participant's assertion: 'we are committed to diversity and can offer financial assistance to all who are in need' [document 2, p. 4]. The statement does not elaborate on who those are that need financial support. Furthermore, at the same time P1 said that they receive funding from the superintendent for students in tenth and eleventh grades, which means that the service is free until the students go to the college; then the students or their parents are responsible for paying their fees. In document 2, the school reveals that they can offer a scholarship fund to students who have financial difficulties; however, this is irrelevant in the Saudi context, because public university is free and, in fact, undergraduate students receive a monthly salary paid by the Saudi government.

Another type of resource is information resources, the advocate charity (those who support gifted education and practices) considered by P1, P3, and P5 as main resource to development and get useful information. P3 reported thus:

I started to get involved with some of the conferences that happen around the country, so

like there's the National Association for Gifted Children, that was a conference I started

attended at my last job which I found to be really helpful [P3, interview].

P1 endorsed P3:

> So this is the consortium. It's called the National Consortium of Early College Entrance
> Programmes … These are people coming together … I think because we're trying to
> address our students better. I shared the research that we did … We also have best practices
> in terms of when you have minors on campus now, what do you need to do, how do you
> protect them [P1, interview].

P5 agreed: 'we have a consortium, where we meet with … annually we meet with other early
entrance programmes around the country …' [P5, interview]. In addition, there are useful websites
categorised as resources to help gain knowledge:

> The National Association for Gifted Children has resources there. There are also other
> websites, one is called SING, it's social, emotional, yeah … so I will sometimes reference
> those, especially if I'm looking for information around a certain topic area, or if I'm
> working with a student who's struggling with a particular issue [P3, interview].

People are seen as resources, where having a principal for the school who works at a faculty in the
university is seen by P2, P4, and P5 as main resource to get access to some authorities. For
example, P2 mentioned: 'And of course [the school director] is in the College of Education, that's
part of her appointment, and so that's a resource to us' [P2, interview]. P4 had a contrasting view in
some ways, but he added some elaboration:

> I think mostly just our longevity, just that we've reached out to them over the years. As
> [the school director] and some other people were talking about in that meeting, there are
> committees on campus that happen; just staff and faculty all over campus will have
> meetings to discuss some kind of campus, some factor of campus, and then … so they'll
> get to know us that way [P4, interview].

Relevant departments in the university are seen as a resource to the school; P2 said: 'Although we
are underneath our unit of undergraduate academic affairs and so that's a resource to us' [P2,
interview]. P4 added, 'I think we have a really good relationship with a lot of faculties and with the
advising office, the registration office' [P4, interview].

Resources of information are not limited to having a principal from the university, or getting support from other departments. The personal educational experiences of individuals could be a resource to some participants.

P7 shared this:

One of the things I think that's helped me is my partner, who is roughly my age, was part of a gifted programme when they were younger, so they've been able to give me some insights and some stuff there [P7, interview].

### 5.3.2.5 Internal operations: decision making and periodic meetings

All the participants mentioned the decision-making operation from different points of view depending on their roles and position. For example, P1 indicated that the decisions in the school are not centralised. She explained that further:

For instance, there is an offer on the table to work … in their centre […], to put together a thing with them, and that was brought to the table in order to allow everybody to say do we think that this is a good idea, is something that we're all going to have to work on this [P1, interview].

The director mentioned the significance of the meeting in work, tracking, and evaluation: 'We have annual staff retreats and monthly staff meetings that we were a part of that for' [P1, interview].

P5 reported how the school relied on research in order to make decisions:

We learned through an alumni study that we did, so we did some research, and [the director] headed that up because I'm not a social scientist … so we're doing research all the time, and we learned through our research … [P5, interview].

The decision-making process is undertaken through regular meetings. For example, the weekly meeting is seen by some participants as an important event where they can discuss issues related to admission, programme progress, and students' challenges. P2 explained this:

I think part of the critical element here is our very, very involved weekly faculty meetings, where we share out and talk about our struggles in each class, and struggles with particular students, and we compare notes and we share and we come up with strategies of approach, and I think that has been one of the most beneficial things in strengthening the transition school [P2, interview].

P7 agreed:

> [W]e have the faculty meetings … so I'll go to them with concerns or praise, and then as a group we can decide if we should tailor certain things to an individual more so, or just leave it if they're doing fine at the group level, so yeah! [P7, interview].

P4 reported on the significance of having meetings so that staff could 'work together':

> I think the thing that really helps this place run is that our staff is really able to work together well. We have a lot of meetings where we just, you know, are very free to just suggest any kind of opportunity or event that could work [P4, interview].

However, the staff meet annually for a certain purpose, as P5 explained:

> Stuff that came out of the staff retreat from last summer, so before school started we all went and spent a night together in a cabin, spent a lot of time making discussion about the mission statement … [P5, interview].

P2 saw the meeting as a tool to gain experience:

> So it's been by experience year after year, and because I was … it was such a gradual immersion in that I started part time as a history instructor, participated in faculty meetings for many years and admissions team meetings and everything before I became principal [P2, interview].

P5 reported that the school uses meetings with students as an effective strategy for keeping abreast of students' concerns:

> All of the students that are in transition school meet once a week with a faculty member, not to talk about English or math, but to talk about study skills, organisation, how is life, how are things at home, you know, all that kind of stuff [P5, interview].

Analysis of the meeting agendas (document 11) (restricted agendas that discuss items not in the presence of students) shows consistency with what the participants mentioned. The restricted agendas for 14 December 2015 and 25 January 2016 showed that the staff meet monthly to discuss the school's goals and concerns. In addition, the following quote from the documents illustrates how the meeting is conducted: 'We began the December meeting by brainstorming both the accomplishments in the fall term and any concerns we still had, whether for ourselves or for the school' (Doc. 11).

The subject matter discussed in both agendas was as follows: accomplishments, concerns, programme updates, student and family support, research, coordination between the school and university through attending the university admissions committee meeting, and participating in the NAGC conference.

In addition to observation upon arrival, I received an invitation from the school director to attend the monthly staff meetings, held in the Transition School classroom at the end of the working day, after the students had left for the day. What I saw was consistent with the above. The invitation on my first day at the school enabled me to become acquainted with the staff members and tell them about my study. Reflecting the director's commitment to the school mission, she emphasised the need to improve gifted education in other countries. In the meeting, the school director and staff discussed the school's participation in a project with one of the leading centres in the USA for gifted students. The director expressed great interest in establishing a partnership with the relevant authorities to support their students. At the end of the meeting, the staff gathered for lunch, during which their chat was informal and included jokes and laughter. It follows that the style of leadership at the meeting was casual, with the school director behaving in a friendly manner towards the staff and immersing herself in the spirit of the meeting by chatting, joking, and using a sincere tone of voice. Their external appearance (dress code) was similarly informal. In general, the atmosphere was simple and unaffected.

In addition, the decision-making during the meeting was the result of teamwork. The director presented the partnership issue to the staff and they discussed it as a group. The discussion was about the feasibility of the partnership and the added value to the school. The director assigned one of the staff members to follow up on this issue and the decision was postponed to the next meeting, pending further information.

### 5.3.2.6 Supporting organisations and partnership

Five of the participants indicated that the school seeks to have local partnerships with other interested institutions that support gifted students in order to share their issues and research, and exchange their experiences. However, the partnerships take the form of formal, informal, and distance partnership through conference calls with institutions, or physical partnerships through visits and attending conferences. For example, P1 reported, 'There is no formal coordination about this consortium … And this is the teleconference that'll be on February forum' [P1, interview].

Referring to informal partnerships, she said: 'And then there is the Texas programme, the Iowa programme, so there's no funding for it, we pay ourselves to go visit with each other' [P1, interview].

Partnership can take several forms such as, partnership within one district school association or/and universities, as mentioned by P6:

> So I'm split between… so it's a public high school. It is probably one of the leading public high schools I guess […] that was a programme, it started last year, and the idea of that programme was to take what we do in transition school here … whatever way possible for a class of thirty-five, or forty, at a public school for high school seniors who have been in a gifted cohort [P6, interview].

P1 approved that: 'so now I'm working and trying to create a plan with school districts so that they can contract with us and we can give their students our online history in English curriculum' [P1, interview].

On the other hand, partnership with relevant departments in the university were apparent; P3 stated this:

> For example the honours department on campus, we have a very close relationship with. So I work with them closely, because we want our students to get involved with them if they're interested [P3, interview].

Alternatively, there is partnership across states as P5 explained: 'For instance, there is an offer on the table to work with […] in their centre for […], to put together a thing with them …. We like those kind of partnerships' [P5, interview]. He also demonstrated some collaboration with partners: 'Annually we meet with other early entrance programmes around the country just to compare notes, just to talk, maybe there's a focus for that meeting, but we just get to know other people' [P5, interview].

I noticed through my observation that some teachers work part-time, working the rest of the time at one of the public schools for gifted students. I understand that the US case-study school coordinates its gifted and talented programme with public schools that offer the International Baccalaureate (IB) programme. The teachers have specific courses to deliver, such as history. The team in the case-study school arrange to visit various public schools for outreach purposes. The

public schools enable the teachers to meet the students and inform them about the services offered by the case-study school. In the margin of my visit, the director of the school arranged for me to visit a gifted public school in one of the nearby neighbourhoods. Through arrangement, I noticed that both directors have good connections with each other. I believe that this coordination between the school and other public schools is a partnership with local institutions that supports the school's sustainability (see section 5.4.2 ).

Compatible with the above, the meeting agenda (document 11) mentioned that the school will undertake special projects with other relevant organisations and attend a 'best practice' workshop with one of their partners, in order to build a database of 'best practice'. The document shows that the school assigns members to represent different committees within the university, such as diversity and inclusion, mentoring, teaching, curriculum, and performance evaluation. These endeavours can be considered to constitute an internal partnership with the university.

## 5.4    Leadership and personnel

The leadership inspiration for gifted education is reflected in the school vision and mission. Having a director who is a specialist in gifted education and who is a member of the university faculty is seen by some participants as an effective pillar to the school. P5 expressed this view about the school director:

> She is great at reminding us that the university mission of the school is to be a resource not only for students, but also for teachers and educators, and academics, and should be a centre for research too [P5, interview].

P5 added this:

> [The director] has been doing a good job, […] we all come back and we all get into our jobs right, […] I think she's the one that either has to maintain focus on those things, or let them fall by the wayside. She's relatively good actually I think in like keeping those things in mind … [P5, interview].

P3 explained the director's professional development strategy:

> [O]ne of the things that I love is that […] is very focused on continuing research here, so it's important for her to be doing research and understanding our students, […], so to me

that fits in really well …So to me I sort of consider that to be professional development in some way, that it helps me to do my job better [P3, interview].

P1, the school director, described her way of managing the people in the school:

My main goal is to support the people that are in my community, so that includes the students as well as my associate director, as well as my assistant director. I don't want anybody to feel overwhelmed or that they're not valued, I want them to feel like they're being listened to, that they're valued [P1, interview].

The director expressed her concern about addressing the daily issues:

When I do have a staff member that is having trouble and issues, we're such a small group that that infringes on everything, so a lot of my work as anybody knows is working with personnel, balancing whatever that they need, and trying to offer them room for growth, that's the other thing. We're a small unit, I want to make sure they're not bored, I want to make sure that they feel like they have ideas and we can go with their ideas too. [P1, interview].

The director is responsible for the high-level tasks such as setting plans, goals, and research. P1 explained her tasks: 'And I'm only 67% an administrator, the other 33% is a faculty member of the college …' [P1, interview]. P2 the associate director stressed the director role: 'Part of our mission is research, and it's really important that we have someone on our team that conducts solid research, which is what […] does.' [P2, interview].

The initial correspondence between the school director and myself had reflected the director's interest of supporting research in the field of gifted education. She contacted me directly without a mediator, enquired about the study, and sent me the relevant documents. In addition, I observed that the director designates the staff meeting, contacts the external bodies for partnership purposes, and follows up with the staff about the workflow. With a firm belief in the school's mission, the director is at the forefront of supporting the research, indicated by her attendance at conferences in gifted education and her publications on gifted education in high-impact journals.

### 5.4.1 Personnel roles

#### 5.4.1.1 Associate Director's role

The Associate Director has a PhD in History, and is experienced in conducting enrichment programmes. However, some participants mentioned the tasks that the Associate Director is in charge of, for example, P5: 'Doctor … basically handles all of our programmes that relate to students who are not yet enrolled in college' [P5, interview].

P2 has a wider role also:

> I hire all the faculty for the transition school, I also hire all the faculty for the summer programmes. So I do all the faculty hiring and all the TA hiring. I evaluate faculty by just sitting in on classes, observations, meeting with faculty. I run weekly faculty meetings where we talk about the students. I'm the main point of contact to all parents […] I do outreach as part of admissions to bring kids in, and I do informational sessions and things like that to communicate to the broader community what we do here [P2, interview].

Consistently, I observed the Associate Director meeting with the TS's teachers in her office, which contained a small table with four chairs for brief office meetings. It seemed that she followed up with the TS teachers about their work. She played a major role in the school, as I noticed the teachers referred to her whenever they needed support. For example, when I asked a teacher for further information about the school, they referred me to her, as she was the longest serving and most experienced member at the school. I also observed that she met with the parents of one of the TS students in her office. Therefore, she played different roles within the school. In a private conversation with her, she told me that she was responsible for evaluating the TS teachers, as indicated in her quote above.

#### 5.4.1.2 Intern counsellor's role

The school hired a new graduate student in a counsellor intern position; the reason behind this is that the students feel more comfortable when dealing with one who went through the same experience. P4 justified his position:

> Yeah, I graduated December of 2014 … I still know a lot of the students who knew me when I was an upper classman when they were in their early years here … I think a lot of

the times it means the staff are just a little more distant from the students because they're

adults, and we can be perceived as a little scary or something … [P4, interview].

He added this:

I think a big part of what I do is just sort of outreach efforts […] I also manage the email

account for the academy, so I'm the first point of contact here … and also try to check in

with our alumni and make sure they're progressing in a way that works for them [P4,

interview].

P5 commented on the counsellor intern role that related to his academic major:

We're doing a … part of our bridge programme now, which is our first year students are all

in a class where we're working on things like resumés, and writing statements and things

like that, and he's going to take a big role with that because he's good at it, and he can be a

resource to the students with that [P5, interview].


Based on observation, the counsellor intern is a graduate fresher who is enrolled in the case-study

school. His cosy office is in the corner of the academy lounge where the students meet and hang

out. I noticed that the students were friendly towards him and vice versa. They sat together in the

lounge discussing registration issues with him. His young age and his experience in the school

make him more acceptable to the students for sharing stories, challenges, and events.


### 5.4.1.3 EEP and the Academy Director's role

P5 works as an English teacher for TS and EEP, and Academy Director, and said this about his role

in the EEP and Academy: 'For the EEP/Academy side of my job, I work with [P3] and [P4], and

[P1], but the team is really those people, and we're really designing a lot of the programming' [P5,

interview]. He explained more about his dual role and hierarchy:

 I'm full time here, but it's two jobs, one of them as a teacher, the other as an administrator.

So as a teacher, [P2]... is actually my boss, and I am a part of the transition school faculty

[P5, interview].

P2 elaborated on the differences between her role and P5's role:

I work with all students before they go to the university. Once they're admitted into the university as college early entrants, the director of the early entrance and academy programme takes over … [P2, interview].

As I observed, the Academy Director, who has multiple tasks within the school, is the catalyst for his colleagues. His position is so complicated, as he is the director of EEP, yet he referred to P2 as an English teacher of TS; that could reflect the flexibility of the school organisational structure. In every conversation with staff about the school, the staff mentioned his name, whether in the context of his experience of the school processes or his knowledge. His character was confident and full of energy, and even his voice was confidently loud. When I sat in my office, I heard him when he was giving English lessons to TS students. His energy seemed to make the students more active than other teachers. I heard the students talk to him loudly and confidently. I also heard them laughing with him and he seemed relaxed with them. During the observation of one of his morning sessions, I noticed that the students in his class were more engaged, and his teaching style seemed to be de-centralised. He interacted warmly with the students, encouraging questions and in-depth discussions. He also ensured that no one dominated and that no one was left out. He frequently asked whether there was anything they wanted to add, so he always encouraged the students to participate in the discussion.

### 5.4.1.4 Counsellor's role

P1, P2, P4, and P5 asserted that the role of the counsellor P3 is an essential role in the school. The counsellor P3 at the school has a Master's degree in Clinical Psychology. She has experience of working with adolescents and used to work at a residential school attended by gifted students. The counsellor plays a major role and as part of the admissions team, she is involved in reading the admission applications. P3 explained her role thus: 'so I'm part of the decision-making team for which students we admit into our programme' [P3, interview]. She added:

There's also some different committees that are part of the larger campus that I'm associated with. So for example, we have a committee that are called The Diversity and Inclusion Team, … but the majority of what I do is the advising [P3, interview].

In addition, she elaborated as follows:

The majority of my work prior to being here was mental health support, so students who were struggling with depression, anxiety, family difficulties, relationship problems, issues in terms of growing up and trying to figure out identity, all of those kinds of things' [P3, interview].

Furthermore, the counsellor supported the teachers in dealing with gifted students and their needs inside the class. P3 mentioned that having a background in teaching can help the counsellor to be more effective for the teacher as well:

I do attend the faculty meeting that they have every week, and so sometimes I can offer suggestions there for … Not necessarily for the curriculum, but how to work with students, yeah. So I feel like not having an education background, that's the weakness, I feel like I can't necessarily suggest how they should structure it [P3, interview].

P5 agreed: '… so she's helping us to think about alumni stuff, and to think about outreach' [P5, interview]. P1 emphasised the counsellor's criteria:

When she came through I was looking for somebody that had an interest in gifted education, somebody with a little more mental health counselling background … and I wanted somebody that was engaged in the field, not just an academic counsellor at the university [P1, interview].

The quote by P3, the counsellor, underlined the tasks that she is responsible for in the school, which are in alignment with what is revealed in documents 12 and 13, and with her experience:

The major focus of my work is more academic support, so helping students understand the requirements at the university … so a lot of it is more sort of organisational administrative related to academic needs at the university [P3, interview].

From observation, the counsellor's office was located in the middle of the academy lounge, with a big window overlooking the academy lounge. The location allowed the students to be closer to the counsellor if they need her advice. The students have multiple channels to contact the counsellor: 'I also get a lot of emails from students, so students will ask questions via email, they'll set up an

appointment with me, they'll ask me how to go about addressing an issue' [P3, interview]. (See the counselling section 5.7 for further explanation).

### 5.4.1.5 Teachers' roles

P5, P6, and P7 all shared their experience in teaching gifted students, as they have a teaching role in the school. Teachers are accountable for designing their syllabus, evaluating their course, and managing the classroom (see section 5.8 ). A quote by P6 illustrates how to improve professionality:

> I designed actually a teaching evaluation system which wasn't actually about evaluation, it was more about reflection. So I would go into the teacher's classroom, and I was attempting to map what they did, both in terms of their time, how they were moving, how they would proceed, just to basically act as a mirror as best as I could, to reflect with that instructor [P6, interview].

P7 described his way of teaching:

> So I put together a syllabus. I only teach during the winter and spring […] I think I have a teaching style that fits well with the discrepancy between being really intelligent but like kind of immature' [ P7, interview].

However, P5 added this:

> I try to take a pretty large view of what's going on in the class and to never underestimate the kind of ways in which students can understand not just about what the facts and the ideas that they're supposed to be mastering […] I think the thing that's unique about the class that I teach … is a real emphasis on what it means to be a scholar, so in a university setting [P5, interview].

The counsellor P3 elaborated on her role with teachers: 'but I'm not doing so much of the planning of classes with teachers' [P3, interview]. It seems that teachers P5, P6, and P7 are accountable for dual roles, whether inside the school or outside the school with some contracted institutions. For example, P7 is a part-time teacher and he has worked with a partnership school. In addition, P5 explained this:

Right, so I have two roles, two jobs, and one of them is to be the transition school English instructor … My other job is administrative, where I am the director of the […] academy programmes … [P5, interview].

P1, P2, and P4 have dual roles of teaching and administration; P2 expressed her role as follows: 'So the summer programme here which is also for gifted highly capable students had me for principal in the summer …' [P2, interview]. She justified this as follows: 'I worked at other places alongside this because I was just part time for the first, probably the first eight years I was here, and then gradually made my way into a full-time position' [P2, interview].

P1 explained the reason for having two different roles:

[P5] was an English teacher and somebody left in a hurry for that […] director and […] Academy and he was only 50%, but he's such a great staff member, we said maybe you could do this for the other 50% to keep him employed, and he's done a fabulous job. When we like and grab our staff and they're only 50% teachers we try to think of something else … we get to keep him for a 100%. [P1, interview].

Based on observation, certain qualities were noticed in the teachers, such as a sense of humour, for example, the English teacher I mentioned above whose students laughed in his lesson. His dynamic character helped to engage the students more in his class (see section 5.4.1.3 ). Another recurring quality was listening skills. For example, the mathematics teacher sat with one student in the teachers' office, which is near to my office, to discuss his progress in maths. I heard the student share his fears of getting a low grade in maths. The maths teacher listened attentively and gave him space to express what he felt, including his fears and weaknesses. The discussion between them took around half hour during which the teacher seemed genuinely concerned about the student's progress. In addition, the counsellor listened carefully to the students' contributions in her session, she looked them in the eye, tilted her head, and did not interrupt them.

In comparison, the history teacher's class was business-like and the atmosphere was one of concentration. I noticed that the teaching style in that lesson was teacher-led in that the teacher read from a book and then asked the students questions. I feel that the teaching style was unilateral in that the teacher asked questions which the students answered. The discussion was limited as the

engagement of the students was limited too. However, he gave the students a break in the middle of the lesson for some refreshments.

## 5.4.2 Recruitment approach for the US school staff and qualifications

All participants with different points of view shared their experience in joining the school. The main criteria for recruitment were background, experience, academic specialty, possessing specific skills, creativity, and flexibility. P7 got the job via an email that had been sent to his department: 'They sent out an email to our department saying they needed someone to teach the ethics course, so yeah, I applied and got the job' [P7, interview]. However, P5 had a different experience: 'Before that I was one of the summer instructors, which is how I first even got to be aware of this programme' [P5, interview]. P6 explained his journey to getting the job in the school:

> So I come into academia and education with an idea it was always for entertainment in a way … it was my enjoyment, but I do think the expertise is important … And for me, coming not as an expert teacher but as a person from disciplinary … [P6, interview].

He gave some recommendations and criteria for teacher selection: 'look for people who are willing to develop and adapt, and who have the expertise to do this, but also as administrative side, to have patience with people to try to build up longevity' [P6, interview].

P1 summarised the criteria for recruitment: 'I finally hired … who now has those communication skills' [P1, interview]. P2 claimed to have two more skills:

> But when we interview them we ask them questions that help us to know whether this is somebody who'd be flexible and creative enough to be in a classroom like this, it's kind of a special classroom.' [P2, interview].

She finalised the criteria for selecting teachers:

> But the criteria are again, teaching ability, clearly that we have evidence that they've been effective in the classroom, that they understand what college level work is, so preferably somebody who's had experience teaching college [P2, interview].

P7 simplified this: 'One of the things that makes [P5], just as an example, is he's very understanding and very encouraging' [P7, interview].

The participant respondents had varying experience or a qualification in gifted education. P5 limited the importance of the gifted experience:

> [the director] has that, and a lot of the people that's she's brought into research have that … [the counsellor] does work with adolescents, she's got a school psych background … She used to work in a residential school that was working with gifted students' [P5, interview].

In addition, he said this about how he improves himself in gifted education: 'I don't have a lot of gifted education background, and the stuff that I do know is the stuff that I picked up here, and I've made an attempt to learn some of it and read some of the literature' [P5, interview].

P2 agreed:

> None of us had any real training in gifted ed., we'd all come to this from teaching at the university … we were preparing these students for university work so we had to have a background in what it is to be a university student. [P2, interview].

P6 indicated what are the important skills: 'like the PhD to me is, whether or not you have the characteristic of someone who has deep knowledge of the subject, deep expertise in the subject, I think that is important' [P6, interview].

> The counsellor had a similar case to P6:
>
> [W]as the first time I working with just that population, so it was a residential high school outside of … they had a high school setting, they would bring in PhD level professors, so similar to what we do at the transition school to teach more vigorous coursework [P3, interview].

However, P2 mentioned that the establisher of the school who was a principal at that time has gifted education experience, 'The director at that time was a specialist in gifted education, as is current now…' [P2, interview]. P3 got her job as she has experience in giftedness, as P1 stated. Conversely, P1 emphasised the lack of a need to have gifted education qualification among the staff, '[I]n this centre there doesn't need to be an expert in gifted, as long as there is somebody in there, and we can each appreciate everybody else's expertise'. [P1, interview].

## 5.5    Identification process

This theme covers the students' characteristics that were derived from the data gathered from the US school, whether mental, behavioural, social, or emotional features. It also provides the school process for admission and the school plan in dealing with outreach issues.

### 5.5.1 Students' characteristics

All of the participants mentioned the distinguishing characteristics of the school's students, whether these be demographical, behavioural, mental, and/or academic characteristics. Students who attend the targeted school are from all over the district. The university that hosts this school has rules about minors in dorms, and the school does not offer a residential programme, therefore the students tend to commute daily. The school offers some services for those families who need to relocate as P2 mentioned:

> In fact, in the last couple of years we've had a lot of interest from international families, from China and Japan … so most of the kids come from […] and surrounding school districts [P2, interview].

The participants described the mental, academic and behavioural characters of their students, they mentioned different terms which appear to have advanced capabilities. For example, P4 said this:

> We get a very specific kind of student that's just really motivated, kind of like just hyper-engaged in learning. You know they're just like very focused and have just very high skills in terms of academics [P4, interview].

The Ethics teacher P7 endorsed P4:

> Actually they are at or more often enough above some students at the university, like they're able to recognise an argument, they can remember, they can recall, they are very good at planning out objections' [P7, interview].

P6 added another characteristic:

> We are constantly dealing with students that are accelerated in their intellectual, their academic, their organisational kind of capacities … These students are capable of having incredible discussions [P6, interview].

P4 added that: 'They always have like some witticism to throw your way' [P4, interview]. P2 described her experience in dealing with learners who were naturally curious:

> I could not imagine what it was to teach a fourteen-year-old. But I came in, and like with many people you find out where your gift is, and I found that this group of students was far more fun to teach and far more engaging than my university students … And I found that the students were exceptionally curious, intellectually curious, very motivated [P2, interview].

Participants' views on the maturity level of the students varied. P5, P6, and P7 said that the students were as mature as college freshmen. P5 explained this:

> But that doesn't mean that they're similarly accelerated in terms of their personal maturity, their relationships with their peers, their emotional stability and all those other things … those students are still fourteen- and sixteen-year-olds, even though they are performing at an academic level of like twenty-year-olds [P5, interview].

In contrast, P7 stated: 'What can I say, actually … their maturity is still at a kid's level' [P7, interview].

In addition to this, student characteristics mentioned by the participants were similar to those qualities mentioned in documents 2, 11, 13, and 14, for example, self-motivation, intellectual curiosity, executive function and maturity (document 2, p. 2). Moreover, in the meeting agenda (document 11), the Transition School students in particular 'seem very open with each other and have good interactions in check-ins' (document 11).

In the English class that I attended, the students were analysing the mechanics of poetry in different eras. The students paid careful attention to each others' ideas and thoughts. I also noticed that the students built their ideas individually. For example, I heard the students use the terms 'in my opinion' when they interpreted the meaning of the language used in the poem, indicating that they separated their interpretations from those of the author. In addition, the students in the English lesson that I attended were committed to doing the tasks; they engaged without any signs of boredom in each task assigned to them.

### 5.5.2 Social and emotional needs

Accelerated students need advanced care and deep understanding. P2, P3, P5, P6, and P7 all raised the issue about gifted needs, whether socially, emotionally, or academically. For example, P7 indicated the differences between the students and other undergraduates: 'they get much more emotional than your average undergraduate student gets' [P7, interview].

P5 explained the role of the specialist who oversees the students to meet their needs:

Somebody needed to be thinking about the social and the emotional aspect of what their transition was going to be, and that they needed this whole year of classes [P5, interview].

P5 and P3 brought up an academic need:

I think that's typical for any student when they come to college is that there's an adjustment period, but I think for our students, the fact they're younger … that heightens some of the difficulty that they have in terms of making that transition [P3, interview].

P5 agreed: 'They feel out of place, I mean as an identity, just in themselves, they know they're younger ... so they're not in the same place developmentally as a lot of students'

[P5, interview].

P6 justified this:

The problem with gifted is that they also will over accelerate themselves, they'll bite off way too much, and they don't have it in the same way, so they're not uniform because they're accelerating themselves, because they're particularly bright [P6, interview].

P2 cited a solution to support the emotional and social needs:

They also build a strong cohort, because the other part of it is, kids around the United States could go into a university early, but we feel that a student needs their peer group, their appropriately aged peer group to be happy in that circumstance, rather than be an isolated fifteen-year-old surrounded by nineteen-year-olds [P2, interview].

### 5.5.3 Admission process

The school relies on hierarchical criteria for admitting students: a high ACT (American College Testing) 85% and high, high GPA; an online application; grade reports from the previous and current academic year; writing an essay; and two teacher recommendations (one from Math/Science, the other from Language/Arts/Social Studies). However, some participants

described the admission procedure as a strict, long, and distinctive process. P3 summarised it thus: 'So they look at test scores, they look at GPA, the grades students get, they look at teacher recommendations, they look at extra-curricular activities, all the rest of that' [P3, interview].

The admission team accepts students in seventh or eighth grade for the Transition School, and in tenth grade for the Academy. However, if students are not ready in eighth grade, they can apply for the school in tenth grade as another entrance option to the school. Writing an essay is an essential admission criterion. It helps the admission team know more about the students' interests, skills, and expectations, and it gives a preliminary estimate about their writing skills. P4 clarified this:

> They just look very carefully at their writing skills just to see how good they are at communicating, but also just how sophisticated their language is, and how effectively they can get across just who they are and why we should consider them for this [P4, interview].

The school focuses on the maturity level of the students and their readiness to engage in college life. This condition is illustrated in the following quote by P5:

> We were turning a lot of students, a lot of really great students away from the transition school, because while they were like academically advanced, they were not mature enough yet … that's a very rare group [P5, interview].

In addition, P6 asserted a major requirement for students:

> One student came in with … actually she had some disabilities that we were fine with, but she actually took a position where she felt like she could not accommodate to paper deadlines for example. That was like a moral accommodation that she could not make; okay, you just can't be here [P6, interview].

The team arranged interviews with each individual applicant to assure the student's desire to engage with such challenges. P4 explained this: 'We interview every applicant, every serious applicant for that. Sit down with their parents and just really make sure that it's the right decision for them' [P4, interview].

P2 described the admission process:

> That family that you saw today in the classroom, they're being interviewed this afternoon. So we need to see very high ACT scores, 85th percentile high, which is really high for a

fourteen-year-old compared with eighteen-year-olds, right! So, because otherwise, you know we have to be sure that that child is really well prepared even for transition school, and so it's kind of essential. So the first stage is to get all those materials in and then we make an initial decision whether to interview or not, and then we interview and then we make a final decision, so they have to have all of that in place [P2, interview].

P6 indicated the consequences of enrolling students at their parents' desire:

But I would say this as a teacher, is that the students that I see who have the most trouble are the ones who are here for their parents … if you don't know why you're doing what you're doing then you won't be successful [P6, interview].

However, the students can withdraw from the programmes but as some participants said, it is a rare case. P4 explained the reason behind withdrawal:

It usually actually relates more to maturity, that they're just not really ready to … they're a little too rambunctious, or not really ready to engage with adults in a serious setting [P4, interview].

P2 reported another reason for withdrawal:

Sometimes we decide they leave ... Occasionally there might be another reason, a misbehaviour of some kind, egregious misbehaviour, that's extremely rare [P2, interview].

However, if the students' ACT score does not meet of the eighty-fifth percentile for the school offer, the students are asked to take a course in the Summer Stretch (see section 5.6.3 ) in order to 'develop those skills and knowledge that will make the students more successful in TS' (document 2, p. 5). In addition, if the students feel that something is unfairly judged or feel dissatisfied with the school admission result, they have the legal right to appeal and the school can review their request, As the admissions handbook stipulates: 'he/she has two weeks to submit an appeal … and should consist of a letter written by the student and signed by both student and parents […] The Admissions Committee will then consult with the Dean of Undergraduate Academic Affairs to review the appeal' (document 2, p. 6).

### 5.5.4 Outreach to potential students

Outreach is an issue that emerged from the responses of P1, P2, P3, P4, and P5, where the school administration is concerned about how to present the school services to the community. P4 mentioned a technique for outreach:

'I think a big part of what I do is just sort of outreach efforts. We go out to high schools, just to kind of spread the word about our programme … we invite people to come on the campus and we give a little presentation to them' [P4, interview].

However, he mentioned an important point:

If you're just looking at the University website, or researching it, I think very likely you wouldn't ever hear about us, and I'm not sure, we might need a better PR team to handle that [P4, interview].

P5 also gave priority to the outreach issue:

We're always working on outreach as I said that's a big priority this quarter … we have our means; we have our ways of doing outreach. We did a big mailer through the state of public schools … we were relying on our Saturday programmes [P5, interview].

He then clarified:

We went out to certain high schools that had EPP programmes, or that had IB programmes where we got a lot of students from, and those also ended up being some of the more privileged schools in the area' [P5, interview].

He gave reasons for this:

I mean our programmes are pretty rarefied … It's not like I can go to the local area high schools and go to their assemblies and talk to the entire student body about how great the uni academy is, 90% of the students aren't even and shouldn't be interested [P5, interview].

He mentioned the purpose of the outreach:

Student might be academically ready, but they don't have the support, they don't have the resources, they don't have the family that's pushing them towards this, they don't have all of those things, so how do we break down those barriers? [P5, interview].

P1 asserted the need for the Saturday programme for outreach purposes:

We've done a lot more to make ourselves to be visible, to be of more service to the

community, starting our Saturday programmes that are not just for gifted students but as an outreach programme' [P1, interview].

She indicated a distinguished technique for expanding their beneficiaries: 'We doubled the size of our summer programmes, we have over 600 students now, and all of that is to demonstrate that we are a resource for gifted ed in the state …' [P1, interview].

Online services have allowed the school to be visible to the community, as P1 explained: 'The online programme that we're creating. The idea for that is that we want to reach out to communities who can't come to the school' [P1, interview].

P2 went further and explained the purpose of outreach:

Well, one is outreach into diverse communities, that we … I think we are very well known in certain communities, but not so well known in others, and my personal challenge is how to reach those communities and let them know that they're welcome here [P2, interview].

Outreach is one of the school's concerns, as mentioned in document 11. In addition, there is a relationship between the school mission and outreach activities, as revealed in document 2: 'The [school] mission is threefold: education, research, and service […] Outreach through service is ongoing, as we work to bring our programming to new populations and regions …' (p. 3).

## 5.6   Focus of the US school programmes

In this section, I present the main programmes that the school delivers for accelerated students, each of which includes a prerequisite preparation course that is also presented in this section. The main responses in this section come from participants P1, P2, P4, and P5, due to their administration role in the school.

The two main programmes that help accelerated students to enrol early in the university are the Early Entrance Programme (EEP), a programme designed for students who are under fifteen years and in seventh or eighth grade, and the second programme designed for students who are in tenth grade in the Academy. The EEP is preceded by an orientation and preparation stage school called the Transition School (TS), and the Academy has a concurrent programme for preparation purposes named the Bridge.

P2 elaborated on this:

They are really two different programmes for two different ages, because some kids are ready in eighth grade for that kind of leap, but there are also some kids who need to try out high school and go to high school, and then come in after tenth grade [P2, interview].

In addition, the school offers a Summer programme and Saturday Programme for other groups of students, which will be discussed later in this section.

## 5.6.1 Early Entrance Programme and Transition School

The Early Entrance Programme is a type of acceleration designed for students after middle school, and has two steps: one year of Transition School (TS), an intensive college preparatory programme taught at the school, and subsequent full-time enrolment at the university, typically beginning with one or more courses during the Transition School year. Once students graduate from the TS, they become EEP students; at that level, the students are freshmen or senior students at the university. The EEP is a support system that provides special academic consultations, such as consultation in research interests and future careers. P4 explained this: 'I mean that's sort of an extreme version of acceleration that these students just feel like they can skip high school entirely.' [P5, interview]. P5 commented: 'We provide some coursework, and there are definitely some orientations and things like that, but they don't get the whole year that the transition school students do.' [P5, interview].

The students rely on the EEP to help them know more about their possible academic interest pathways. The extent of their needs is explained by P5:

The ones that become [EEP student] tend to need us a little bit more in that first year. Even after … they actually do better academically … so their averages, GPA-wise, are actually a little higher than the academy students [P5, interview].

The students in this programme take college classes and the school does not teach them. The school's role in that case is to provide the EEP students with academic advice, social and emotional programmes, and orientation courses for the college. P5 explained the purpose of this programme: 'I'm not teaching writing, or English or math, or any of those things, it's more of an advising role; we're talking about course planning and applying for scholarships' [P5, interview].

The EEP is preceded by the Transition School, which is explained in the following section.

The Transition School (TS) is thirty-five years old. As mentioned in the school publication (document 2), TS is a unique programme that takes gifted students out of seventh or eighth grade. It is a one-year programme that prepares the students who are intending to enter the Early Entrance Programme at the University. Students totally leave the K-12 system and enrol in the TS; therefore, the TS programme is not a dual enrolment programme. Students should complete TS before being admitted to the college as undergraduates via the EEP. Students take courses in Biology, History, English, Physics, Ethics, and Pre-calculus that are in-depth and accelerated (document 16). The participants explained the reason behind establishing the TS programme: they believed in the success of one intensive year for preparing the students for college life, how to read research and write assignments, and how to act as undergraduate students with the faculty members. The students can take a university course in the spring term; in addition, they attend a weekly tutorial in which they work on study skills and talk one-on-one with a faculty member. However, the preparation programme is essential for those students who were just selected from the middle school as agreed by the participants. P5 explained more about the purpose of the TS:

> A middle school student just does not know any better about what they are expected to be, and do, and to be doing on their own and so that is what the transition year is really about … what the expectations for college students are, and their interactions with professors and TAs and their peers are different, so we're trying to gear them up for that [P5, interview].

Entering the TS, where they are trained in writing and reading skills, helps the students to be more successful in the university. P2 commented on the importance of entering the TS:

> So the transition school really is the cornerstone for the student being successful at the university, because they get all of those skills in place before we let them go on [P2, interview].

In addition, the students in TS are not yet college students but they will be, so they are in charge of doing intensive work that matches college-level work:

> They're taking classes here that we have specially set up for them … it's a year of preparation for them to get them ready … it almost seems a little more difficult than college classes, because they're often writing a lot more and have more classes going on than regular college students do [P4, interview].

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P5 justified this:

> Part of the reason why the transition school programme is so difficult, is not because we want to stress these students out … They've never really struggled. They have never taken a test and gotten a bad grade and then gone […] they've never had to deal with that kind of adversity [P5, interview].

The TS is keen to acquaint the students with the necessary social and communication skills:

> I don't want for instance a student that's coming through our programme that might be brilliant in math to miss out on an opportunity for like a cool research position or something like that, because he doesn't know how to knock on the door before he enters the professor's office, and doesn't know how to use correct etiquette in emails [P5, interview].

The TS started in 1990 with nine students in the class, but the recent student numbers range from fourteen to eighteen. The qualifications of the students and the capacity of the programme limit and determine the size of the student cohort. P2 explained how they reached this number of students in one TS class:

> Our work is very labour-intensive, in that we give each student a lot of individualised attention. So we have found ... when we started this year with eighteen, that worked really well because we have weekly tutorials with those students, they have a lot of meetings with faculty … and you can't really do that with a much larger class [P2, interview].

She added and elaborated on the students' feelings about having a small number of students in the class:

> …you don't want a class of five or six, they get pretty tired of each other at the end of the year, and that's their social circle, so you want it big enough that they have a vibrancy and a rapport and a connection, but not too big so that the teachers can't see to everybody's needs … we've had less sometimes, just because we only take those students who we think are really, really qualified [P2, interview].

### 5.6.2 The Academy and Bridge programme

The Academy is an advisory and preparatory programme that takes a cohort of twenty-five highly motivated students from high school in tenth grade; they then take regular college courses and start college life as freshmen or senior students at the university (document 15). This programme 'provides a unique gateway into one of the nation's premier research universities' (document15). The Academy programme is only fifteen years old, and provides students with a suitable atmosphere, a like-minded community, academic advising, social and emotional programmes, and qualified staff who help them to successfully enrol in the university (document 15). P5, the EEP director, explained the idea behind creating the Academy:

> I think the idea was that … we learned over the course of that thirty-five years that those students need a lot of support for that, […] But we became aware of the fact that there was a whole other group that we weren't serving at all, which is this group that made their way half way through high school [P5, interview]

P4 justified the reason behind the Academy: 'It's intended for students who just don't think those last two years at high school are really going to be much, or be very fruitful for them' [P4, interview]. P5 explained the relationship and services between themselves and the Academy students: 'They come to us for advice, they come to us for a particular kind of administrative kind of things, but they're out there doing their thing, and many of them are very successful' [P5, interview].

However, the academy offers several advisory programmes and activities for the students who struggle academically or socially in college life. The school offers two advisory programmes. First, the summer Bridge programme where the students are introduced to campus resources, learn about undergraduate requirements, and register for their first classes. Second, the summer group, which eases the transition to university life and provides the students with the skills that they need. P2 talked about the nature of the bridge programme:

> So we bring them in directly to the university as full undergraduates at that time, so it's a separate programme for older students, and we provide a bridge programme of a certain amount of coursework, but not like the transition school year [P2, interview].

Students meet members of their cohort, older Academy students, and the Academy staff. Students can attend workshops on college success skills led by Academy staff and students. P2 clarified the reason for the advisory programmes: 'Not every bright child is ready for college' [P2, interview]. P5 explained this further:

> I mean that is actually the danger … we don't want to encourage them to like segregate themselves, but at the same time we do want to acknowledge, like you're not necessarily always at the same place, and that's okay, and you have a place where you can come and be yourself, talk to us about these things, right? [P5, interview].

The school handbooks refer to the preparation activities as follows:

> There are boys' and girls' dorms, a cafeteria, a recreation room, and many trails. At the camp, students are allowed a good amount of unstructured time to allow them to get to know each other and to explore the camp. In addition, we hold an evening 'fireside chat' […]. The second day is a hike to the top of the falls. All students are expected to make the hike … (document 2, P. 8, 9).

As revealed in document 15, the Academy offers advisory programmes to link their students to college students who are older. The Academy hires alumni in mentoring and peer programmes where older Academy students can come into the school, talk to the younger Academy students, and explain to them how to be engaged with others and how peer programmes help the students to be a part of the regular college community. The advisory programme explains to the students about obstacles that might confront them in college social life. P5 explained this further:

> Well, hey, you have the opportunity to go out and go to like a social group, or a social club with regular college students […] She should have a place where she can say, I feel weird about the fact that I'm sixteen, and that's where peer mentoring I think, and some of the counselling services […] is really important [P5, interview].

### 5.6.3 Saturday and Summer programmes

The Saturday programme started some six years ago with one enrichment math class. The programme did not involve homework or testing; the students came just for fun, exploring and

challenging themselves in math practices. Nowadays the programmes have math, philosophy, creative writing, and science classes, and students have freedom to choose the topics that they would like to explore.

The Saturday programme is intended to provide the students with dynamic, challenging learning experiences. The programmes develop the students' exploratory and collaboration skills, and does not rely on tests and grades to credit the students.

The school uses several channels to be visible to the community, and the Saturday programme is one of these channels, where the school accepts students who are not necessarily qualified for gifted programmes. The Associate Director discussed admission to this programme: '[I]t's a programme that's unique in that we don't require test scores or any kind of criteria for admission, it's open to everyone at the right age, and it's our outreach'.
She added:

> We figured that if we bring kids in who may not qualify for other programmes, and they get to become involved in really fun learning experiences, they might want to try out our other programmes [P2, interview].

However, if the students do well in the Saturday programme the school invites them to enrol in the Summer Programme discussed later in this chapter. P2 added this:

> And it's just meant to be fun, and once kids are in this programme, they automatically qualify for our summer challenge programme, even though they don't have test scores. So it is a conduit through which kids can get involved in our other programmes [P2, interview].

The principal of the school P1 emphasised the marketing idea for solving outreach problems:

> We have done a lot more to make ourselves visible, to be more service to the community, starting our Saturday programmes that are not just for gifted students but as an outreach programme [P1, interview].

The Saturday programme operates throughout the academic year, with about eighty students. It is designed for students from kindergarten to eighth grade, and as mentioned in the school publication, it welcomes everyone who wants to join: 'Right, it's just kids in the community, 4th grade through 8th grade … 4th and 5th grade together, 6th through 8th together' [P2, interview].

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The Saturday programme has been taught by postgraduate students who are practitioners in their field and who master in special fields, with a passion for teaching. The teachers are responsible for designing the content of the course, as P2 revealed: 'Our philosophy teacher … he completed his BA here, and teaches at a small private school here in the city, but also he teaches for us on Saturday' [P2, interview].

On the other hand, summer programmes are divided into two different programmes: 'Summer Challenge' that takes students in fifth and sixth grades, and 'Summer Stretch' for seventh to tenth grades. The summer programmes are held in the university campus. The programmes serve more than six hundred middle and high school students annually. The duration of the summer programme is three weeks for the Summer Challenge and five weeks for Summer Stretch, three days a week. The activities teach problem-solving and interactive skills. The students have the opportunity to explore interesting subject areas including math, science, literature, philosophy, and writing classes. The policy in the summer programmes is different from the Saturday programmes in that the students have to be tested or be identified as highly capable unless they have been enrolled in the Saturday programme. The summer programmes are more rigorous and academically challenging. The students have tasks and homework to do, tests, and progress reports. P2 explained the classes in the summer programmes:

> There's no theme, they cover a wide array of classes. So like summer challenge would be classes like physics of rollercoasters, creative writing, and math topics, to the moon and beyond, classes like that. And summer stretch is even more academic, we have American literature, we have debate, we have chemistry, and things like that [P2, interview].

The school runs Saturday and Summer Programmes, only charging nominal fees in order to support the school. However, the Summer Programme is considered by the participants to be the gateway to knowing the school, and a way of helping the teachers to be employed within the school, as P4 stated:

> […] that it  keeps getting applicants and keeps being known, is that just people know people who have been through our programme, or they have done one of our summer programmes [P4, interview].

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P5 mentioned his experience with the summer programme: 'I loved teaching the summer programme … I will tell you too; this is what I was leading up to here' [P5, interview].

In the analysis of documents 3 and 4 (see table 4.10), the Saturday and Summer programmes have some common features as well as differences. The school is open for students for nearly the entire school calendar year. The Saturday programme is run each Saturday until the summer which is when the summer programmes start. Table 5.1 shows the time and duration of each programme, and the level of curriculum difficulty: it is intensive and rigorous in the Summer Stretch and less rigorous in the Summer Challenge due to differences in the school-grade level. The courses between the three programmes differ. All programmes are held on the university campus, with the Summer programmes conducted by specialists in the field, and the Saturday Programmes taught by the teachers and practitioners.

Table 5.1 Summer School and Saturday programmes

| Programme name | Summer Stretch | Summer Challenge | Saturday Programme |
|---|---|---|---|
| Duration | June-July/ 5 weeks / 09.00 am-2.20 pm | 11-29 July/ 3 weeks/ 09.00am- 2.20 pm | 2 hours every Saturday – each quarter but not in the summer |
| Registration | In March | In February | Spring quarter: in February Winter quarter: January Fall quarter: September |
| Grades | $7^{th} – 10^{th}$ | $5^{th}$ and $6^{th}$ | $K – 8^{th}$ |
| Location | University campus | University campus | University campus |
| Features | Rigorous, intensive learning experience, in-depth and fast paced curriculum Some courses can be credits for high school course. | Accelerated challenging curriculum Conduct a research project Fun activities and engaging learning experiences | No homework No grades Fun, collaborative and supportive learning environment |
| Personnel | Specialists in the field | Specialists in the field | School teachers and practitioners |

| Programme name | Summer Stretch | Summer Challenge | Saturday Programme |
|---|---|---|---|
| **Courses** Students can choose from: | Robot and Rocket Logic and art of proof Documentary film-making American literature Chemistry Algebra Geometry and pre-calculus | Physics Creative writing Introduction to robot Math The moon and beyond | Students are allocated to the following classes depending on the grade level: Math Creative writing Science Philosophy |

## 5.7 Counselling services delivered in the US school

The counselling services for the students and their parents at the school are very important as revealed by the administrative participants. The students at this age should have a place where they can go and a trusted person whom they can turn to about concerns. The school encourages students to be part of the college community, and have the experience of what is means to be freshmen, making positive connections with others. However, the school counselling team pays attention to the issues related to being underage and social events in the campus. P5 emphasised this: 'I think, and some of the counselling services that […] provide and other people provide is really important' [P5, interview].

In analysing the counselling plan and counselling session schedule, documents 12 and 13 (see table 4.10), the goals of the counselling service in the school were revealed: to build a secure and supportive base for all students in the school, to enable them to access campus resources, and to build relationships with peers, staff, and faculty. The students are allocated to the counsellor for an individual consultation and they can arrange to have a group session as well. However, students with a GPA below 3.3 out of 4.0 are sent an email requesting an individual meeting with the counsellor. The consultation schedule shows that some rules are set in the counselling session, such as 'no physical contact' and 'no shouting'.

As revealed in the counselling plan (document 12), the school counselling service has a four-year-plan designed to enable the students to get the most out of their university journey. In the **first** year, the counsellor reviews each student's progress. The students may discuss with the

counsellor their selected courses and the counsellor may identify the appropriate resources for the students, such as departmental contact information. The counsellor suggests optional courses for the students to attend, such as two-credit seminars on their research interests or campus services.

In the **second** year, through individual and/or group meetings, the counsellor continues reviewing the students' progress, assisting with selection of their academic major. The counsellor also ensures that the students have fulfilled the university's requirements. In the **third** year, through individual meetings, the counsellor offers the students with a declared major general advice and assistance, while the students without a declared major are guided towards fulfilling the university requirements, through setting a plan for declaring a major and assisting the students with any struggles or challenges. In the **fourth** year, the students are welcome to stay in contact with the counsellor whether through emails or individual appointments.

P3, the counsellor, explained her tasks that reflect the role of the counselling service that the school provides for students:

> We also do supportive programming for students and parents … for the transition school I do a weekly check in with them, so for half an hour we sit in a circle, and it's a time for students to talk about how they're doing, how they're feeling, if they have questions, if they have concerns, the things that are on their mind, we can bring that up as a group [P3, interview].

The counsellor gave an example about the cases that she faced among the students:

> I've heard students say in my high school, I was one of those nerdy students, I was one of the top performing students. I come here and I'm sort of average ... So that's where the counselling piece can come in, is trying to hear them, to validate that experience, to let them know that that's very common amongst the students here. But then to try to figure out what would be helpful to them [P3, interview].

The counselling services in the school are not limited to social and emotional issues. The services also extended to balance the academic workload for the students:

> Another piece I think about especially with advising, is that I think sometimes students take on too much, so they want to take four classes, or five classes … they also want to be

the head of the debate team, and be on the soccer team, and take violin lessons … So we try to think about our talk with them about picking a few things that they can really go deep into [P3, interview].

The counselling services in the school work in cooperation with the other departments in the university. For example, the counsellor collaborates with the undergraduate academics recommending departments in the university that have similar services for those students who are over eighteen years. The counsellor benefits from having these similar departments near to her in the same campus, where she can send to them some critical cases who may need therapy or intensive counselling:

> So I do collaborate as I need to with some other departments … So sometimes they'll offer resources. For example, a brown bag lunch where all advisors can come to learn about how to get students involved with internships …We also can refer them to the counselling centre on campus, so if they need more intensive counselling or therapy [P3, interview].

Additionally, the counsellor revealed some useful techniques that help her to understand the needs of the students. They gather the topics that they would like to talk about in the group session by filling in an open form. Attending a group session is optional, where the students can discuss topics such as safety, how to treat others, and academic issues. However, behavioural issues are addressed in an individual session (one on one). Involving parents is one of the helpful techniques for those students who struggle with college life. A weekly seminar is one of the techniques that is used by the counsellor to discuss academic issues, such as being involved in academic activities, internships, and dealing with professors:

> Typically what I ask them is for the following week if there's a topic that they are interested in. So they've come up with things like how to get involved on campus more, what should we be doing over the summer, do we need a job or an internship? How to work with a difficult professor ... How to get a research position was another thing that they brought up, so that one is a little more structured, but again I'm trying to allow them to be the ones to structure what they want to bring up [P3, interview].

For example, the counsellor presented the differences between the BSc, diploma and MA. The counsellor had asked the students to research various university departments which they then presented to each other. In a session later, one of the students presented information about robots and web design, which he had collected from the Computer Science Department (CSD). He shared with his peers his experience of discussing this topic with the Computer Science faculty members. Using discussion and conversation, the counsellor encouraged the students to review and critique each other's work in order to prepare them for a competitive academic environment. For example, the counsellor asked the presenter to share with his peers any challenges and obstacles that he faced when he interviewed the professor in the CSD.

The presenter explained to his peers how he had scheduled a meeting with the professor and how he needed to reschedule the meeting when the professor changed the time of the meeting. The counsellor related to the students the difficulties they might face when they deal with faculty members. She made them aware of the time changing issue, the etiquette of sending emails to professors, and registration issues such as amending an application form or changing one's study major. The general atmosphere in the class was quiet, with everybody concentrating on the presenter. It seemed that the students were concerned about how to apply to the university, as most questions at the end focused on that issue. However, that aligned with the earlier comments about the mission and purpose of the school (see sections 5.3.2.1 and 5.3.2.2 ).

## 5.8   US school curriculum

This section heavily relied on participants P2, P5, P6, and P7, as they were experienced teachers in teaching the gifted students in the school. As revealed in document 2, the school provides the following courses for the Transition School students: English language, history, biology, pre-calculus, ethics, and physical education (PE). Consistent with the school document, P2 described and confirmed the curriculum of the TS:

> They also have to be adaptive curriculum designs, because we don't hand them a
>
> curriculum … We offer biology, history, English, ethics, and pre-calculus, all of those
>
> courses, so it really adds up to five to six hours of homework a night, a lot of homework, a
>
> lot of work for these students [P2, interview].

The EEP and the Academy students take different courses that rely on college preparation, such as academic advising sessions, university degree requirements and registration tutorials, and essential communication skills and professional etiquette, as seen in the school schedule (document 16). The students are taught in the winter, and in the spring they have fieldwork to apply what they have learned. For example, the Ethics teachers P7 explained this period of teaching and fieldwork:

> In the winter it's mostly just reading philosophy articles about ethics and stuff like that, and then in spring they do service learning, which is they'll actually go out into the community and volunteer with certain organisations, and we try and tie that in with the ethics material for the spring quarter [P7, interview].

P2 endorsed P7's comments and added that students take university classes in Spring, explaining the purpose of taking the advanced classes:

> The curriculum changes in the spring quarter when the science class ends, and instead we have the students take a university class of their choosing to see whether or not they're ready for the university, and we ask them to do a service learning component, service learning being work, going out into the community [P2, interview].

The teachers are responsible for designing the syllabus of their course, and they rely on their experience. P7 has some thoughts on designing the curriculum: 'Don't overwhelm them … And I think the second one is just good teaching makes the expectations very clear' [P7, interview]. P6, the History teacher, explained his technique in designing the curriculum:

> Actually go and find someone else's curriculum who does have that expertise, and then you become the learner, and then you become modelling. And you know someone who has embedded this is respect for that expertise, or respect for that disciplinary specificity […] I have my own disciplinary expertise so I kind of know what to look for [P6, interview].

The teachers design the syllabus for the courses and the students purchase the books for the courses: 'Yeah, so I put together a syllabus …They buy the books, but I tell them which book to get' [P7, interview]. P2 validated this: 'So we have all these teachers that come in just to share, and they design the courses themselves' [P2, interview]. P2 also mentioned the syllabus designing and who was responsible for doing that:

So I think that's one valuable thing with faculty retention, is they have a lot of autonomy in terms of the details of their syllabus, and they can change it up and improve upon it constantly, and that makes life interesting for them and interested for the students [P2, interview].

P2, an expert in History, told the story of how she loaned P6 her syllabi and how he developed it:

When […] came in to teach the history class; I had taught it for many years, I gave him my syllabi as an example, but he developed his own courses, which bears some resemblance to mine, but not, not mine' [P2, interview].

She added some ways of curriculum evaluation:

So we encourage that kind of constant self-assessment of the curriculum … And we do student surveys at the end of the year as well to get a sense from the students what worked and what didn't,' [P2, interview].

In terms of evaluation of the syllabus, P2 identified factors that she looked at as assessor of the curriculum:

For example, we had a physics instructor … I'm not a physicist, but I can tell if I look at a syllabus … first of all are the assignments connected to what he's trying to get across, are they well designed and timed appropriately. In conversations can they … explain something to me clearly … Have they taught introductory courses in the subject? [P2, interview].

There was correspondence between what the participants said about the curriculum and what is explained in the school handbook. The handbook also details the outputs of the educational process and what their courses are shaped around as the key ingredients of college scholarship:

Completion of Pre-calculus with good understanding of mathematical principles, experience in a 'lab science', with preparation of lab reports, understanding of the scientific method, experience in the methodology of social science/humanities, acquisition of strong research skills, development of strong writing skills, experience with reading challenging texts and with textual analysis and experience with working in a collegial, collaborative scholarly environment (document 2, p. 10).

### 5.8.1 Course syllabuses

Analysis of documents 2, 5, 6, 7, 8, 9, and 10 reveal the content of each course of the Transition School. The resources and references of each course and the assessment used were analysed (see table 5.2). In addition to the main skills to be acquired after completing the course, certain strategies have been used in order to deliver the content of each course.

As shown in the vertical view of the first column in table 5.2, the dominant skills which the school focuses on for students are analysis and critical thinking, based on the fact that these skills recur in most of the course syllabuses. Engagement and communication in the class are also seen as important skills as some of the courses give credit for engagement, such as Maths, Ethics, History, and English. The skills meet the second and third level criteria of Bloom's Taxonomy which are 'evaluation' and 'analysis' (Forehand, 2005). Analysis of the syllabuses does not show the use of the higher level of the Bloom's taxonomy, namely, creativity, unless the skill of 'construction' is counted, as part of the Ethics course syllabus (Forehand, 2005). However, some creative skills can be seen in the assessment criteria of courses such as in writing mini assignments (in Biology, Maths, Ethics, English, and History) but it does not appear in U101, the counselling course. In the lab experiments for Biology, writing and problem-solving could be considered as application skills, represented on the fourth level of Bloom's Taxonomy (ibid.). Discussion is the main strategy used in the school courses, whether to deliver the course content or as a criterion to assess the course. Engaging in class discussions is also stressed in all the syllabuses 'as it is required as one of the largest components of the overall grade' (document 7, p. 2). In addition, writing assignments is the main assessment criterion, as well as quizzing.

Table 5.2 Analysis of course syllabuses

| Course | Intended skills | Teaching Strategy | Assessment |
|---|---|---|---|
| Biology | Evaluation<br>Analysis<br>Engagement<br>Communication | Investigation<br>Lab experiments<br>Presentation<br>Reviewing literature | Writing assignments<br>Open-book quizzes<br>Exams<br>Research project |
| Maths | Analysis<br>Peer reviewing<br>Criticism | Student-directed classes<br>Instructor-directed<br>classes | Writing assignments<br>Quizzes<br>Analysis of problem sets |

| Course | Intended skills | Teaching Strategy | Assessment |
|---|---|---|---|
| | Problem-solving<br>Critical writing | | Presentation<br>Exams (mid-term and final)<br>Engagement in the discussion board |
| Ethics | Critical thinking<br>Construction<br>Argumentation<br>Questioning | Discussion | Exam (multiple choice question)<br>Writing assignment<br>Quizzes<br>Weekly writing<br>Discussion and contribution |
| English | Critical thinking<br>Critical reading<br>Analysis | Conversation and discussion | Writing assignments<br>Participating in discussion<br>Presentation<br>Final exam |
| History | Analysis<br>Peer reviewing<br>Critical thinking<br>Communication | Reading<br>Researching<br>Discussion | Writing assignments<br>Participation in discussion<br>Micro essay<br>Exams<br>Research paper |
| U101 (Counselling course) | Filling in university applications and registration<br>Professional etiquette<br>Communication | Discussion<br>Guest speaker<br>Alumni connection | Sending emails<br>Practical field task (interview with professor)<br>PowerPoint |

### 5.8.2 Teaching strategies applied in the US school

The responses in this section vary between the teaching strategies and the concept behind teaching.
Teachers P5, P6, and P7 led the conversation about teaching. Some of the teachers spoke of the
application of a student-centred system of teaching where the students lead the sessions of the
course. As revealed through different data resources, the teachers rely on discussion as a teaching
strategy in order to get the students to use critical thinking skills, and to develop argumentation
skills. The teacher of Ethics, P7, explained this:

So very rarely do I lecture or anything, I try to run it more as a discussion-based kind of

thing. So I will ask them like what is the argument presented in the paper here, and then I

push them to explain things to me … so I try and put a lot of responsibility and expectation on them [P7, interview].

P5 preferred a different type of teaching: 'I work with the students, very one on one in a lot of cases … I think it's totally relevant and related to what they're talking about, and that's what my paper is' [P5, interview]. He emphasised the importance of the practical aspect in delivering the curriculum:

They have to learn how to stage analysis … but the added emphasis is on what it means to do the work in a really practical sense, like as a scholar this is what scholars do … And you know the goal is to show them that one of the things you need to do when you enter into an English class is ask yourself, what's the methodology that's going on here [P5, interview].

He mentioned the purpose of their teaching strategies: 'It's a process of crafting their interests to the disciplinary field that they're involved in' [P5, interview].

P6 described the teaching style in the school:

I would say, I mean there is a very hard learning curve, this type of teaching, this type of centre is very different than almost any other place that you're going to teach' [P6, interview].

P7 mentioned specific strategies to raise critical thinking for the students, argumentative skills and more engagement in the class. He reported:

We just read some really famous articles and philosophy about each one of those topic s… The goal is to get them to critically, like develop critical thinking and argumentative skills about ethical issues … in class it's you provide a justification for your belief, and so this gives us space to do that so they can critically engage [P7, interview].

The English teacher, P5, used articles when he taught novels, and also emphasised a strategy of teaching:

So writing is not just express your idea about this book, it's about joining academic conversations … So when I teach the novel Frankenstein … I can give a student an essay written by a professor from Cambridge or … from Harvard about Frankenstein, and they

can actually enter into conversation with it. … and they've made this really elaborative argument [P5, interview].

P5 justified that: 'There's a methodology, there are rules for how you read, rules that have changed over history because of discussions and conversations that have been happening in this field' [P5, interview]. He added:

> I think the thing that's unique about the class that I teach … is a real emphasis on what it means to be a scholar, so in a university setting … I'm teaching them about how writing is really a tool of communication … well methodologies are important [P5, interview].

P6 agreed with P5 about having a conversation in class:

> My lectures tend to be very interactive, it's not just me up there reading something, it really is me attempting to model a historical production, a historical conversation [P6, interview].

In addition, he agreed with P5 on the level of teaching in the class that is similar to the university lecture style. However, he distinguished between the school class and the university lecture:

> [It] is more or less an introduction to a lecture style class that you might see. It's very close to the exact same class if the university asked me to teach … But what we're doing here is to teach them how to make good decisions as scholars, to make that same five-page paper a good piece of scholarship [P6, interview].

The teaching strategies are different in each semester. In autumn, the teachers prepare the students to be more engaged with academic conversation, whereas in winter and spring the school is seeking to develop greater independence over time. P6 explained this:

> At the beginning of winter, we shift over to a seminar model within the class … By the end of fall they actually are usually capable of it, and I just haven't given them the opportunity, so that's what to me winter and spring are about, is giving them that opportunity, giving them that agency [P6, interview].

In dealing with undergraduate gifted students, P7 indicated how he gradually introduces the task in his class:

> I try to take things very slow at first, and so I start the pace as a whole, and then if there are students who are struggling, or students who are excelling, then I know… [P7, interview].

The class at the school has special properties; however, the teaching process in these classes is fraught with challenges. P7 discussed some of these challenges:

> One of the things that makes it a lot of fun, but then also difficult to manage is how eager the students are. This is the only time I've taught where students … I'll ask a question and there's … like shaking their hands and like really eager to answer, and so sometimes I have to make choices about who to call on, and it turns out that I've neglected some other students [P7, interview].

The teachers attempt to maintain the quality of discussion in the class. Therefore, they change the topics of the discussion deliberately in order to engage all the students in the class in the discussion. P7 said:

> It is hard to keep a discussion on a single topic …. I try and let people who haven't, or who don't speak much, if they're one of the people with their hands up I'll go to them first, and then kind of make the rounds [P7, interview].

Nonetheless, the teaching strategies concentrate on developing several skills, such as discussion, classification, integration, argumentation, active involvement, and correlation (see table 5.2). P7 described the input and output of the teaching process and coping skills in the students' future life:

> One of the hopes is that they see how pervasive morality is … I think part of the goal is to just get them to realise how big of a part of their lives moral issues are, and then get them to critically engage with it [P7, interview].

P6 and P7 considered the moral side in teaching their students. They emphasised the ethical issues in preparing scholars to compete their peers academically:

> [W]hat I can do by giving them this agency … showing them the skills, by showing them the ethical considerations of why do scholars choose to act in this way? … I mean I don't teach them the easy path to do that. If this was like teaching tricks to be able to beat a freshman level course, we wouldn't need a year [P6, interview].

P7 tries to teach his students preference and comparison ethical skills, 'so what kinds of reason are good moral reasons, what kinds are not, what kind of arguments work, what kinds don't' [P7, interview].

Lastly, P6 indicated the way he evaluates the teaching process:

I designed actually a teaching evaluation system which wasn't actually about evaluation, it was more about reflection. So I would go into a teachers classroom, and I was attempting to map what they did, both in terms of their time, how they were moving, how they would proceed, just to basically act as a mirror as best as I could, to reflect with that instructor [P6, interview].

Through my observation, I noticed that the teachers employed several different strategies and techniques for delivering their lessons. For example, the English teacher used content analysis to analyse a poem, and presented pictures about Greek history related to the topic. He used his textbook, which the students were supposed to buy, and PowerPoint slides to explain the content to the students.

In addition, the English teacher used critical thinking to critique the poem and analyse the meaning of the language of the poem in a specific era. However, the main strategies used were presentation, engagement, and discussion (see section 5.8.1 ) in order to enhance the students' communication skills. However, he did not force anyone to talk or participate.

In comparison, the History teacher based the students' discussion of ideas and concepts on the contents of a book *Damned Women: Sinners and Witches in Puritan New England*, which the students bought themselves. Although the History class was more traditional in its reliance on a set work, the teacher asked penetrating questions about the concepts and meanings in the text. For example, 'What is the nature of nature?', 'What does life look like before birth?', and 'How does God want this world to be?' He both challenged and surprised his students with such unexpected, critical, and open-ended questions.
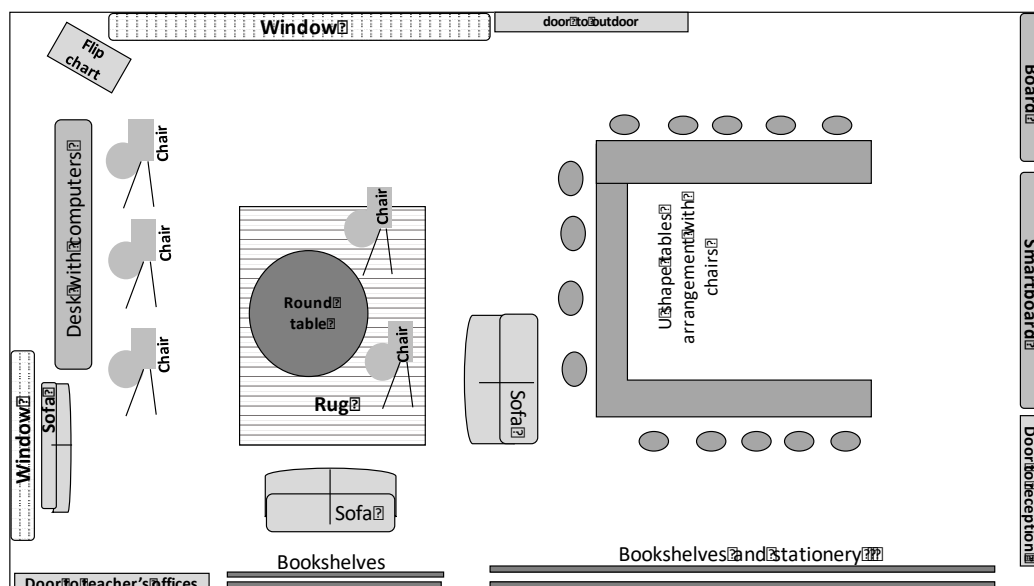
Figure 5.2 TS class sketch

On the other hand, the Ethics teacher, I noticed, was keen to develop the critical thinking skills of the students in his class. The lesson was about animal rights, with the teacher using an article to express the philosophy behind animal rights. The teacher asked the students to identify the argument presented in the paper. Through raising the tone of his voice, he encouraged the students to explain the argument based on their own understanding, feelings, and thoughts. The teacher explained to them that they were going to discuss their morals. For instance, if they believe that eating meat is wrong, how would they deal with the situation when sitting down to a meal with a friend or colleague who eats meat? The teacher encouraged the students to challenge their moral beliefs and justify their decisions so as to critically engage the class.

In addition, my sketch of the transition school class (enhanced by PowerPoint slide) showed that the class has a smartboard that both the English teacher and counsellor used. The students' tables were arranged in a U-shape. Along the walls were two bookshelves that contained maths books, science journals, and history books. Figure 5.2 shows additional details.

### 5.8.3 Assessment strategies applied in the US school

The school employs a holistic assessment of the students to assure that the students are ready for college. The participants cover several aspects of assessment that are consistent with what the syllabus analysis revealed. For example, P7 used credits as a specific technique to assess the

students: 'like it doesn't matter if I disagree with the argument, but if it makes sense and they've thoroughly explained things, then they get credit …' [P7, interview]. He added: 'So we have quizzes once a week, and one- to two-page responses for writings that they have to do per week … I'll provide comments and feedback on them' [P7, interview].

P7 explained this further:

On the syllabus it's called citizenship, and that's just like are you discussing, are you participating, are you being like an active citizen in the class, so … if you talked pretty regularly, even just saying one thing a day, asking a question a day, then you get full credit for that [P7, interview].

P5 was keen to assess the students' progression:

It's not just about grading the course of the paper that comes in at the very end; it's about evaluating the process. It's like the student has to come up with a research question. [L]ike they have a methodology that's going to allow them to answer the question that they're asking [P5, interview].

He also indicated the process of the holistic assessment:

Is this student ready for college? … the real evaluation is always at the end of the quarter where the faculties sit in the room and do a variety of both quantitative and qualitative, just a conversation really, talk about who is ready for college based on our own criteria, and it's often different [P5, interview].

He elaborated on the 'to succeed' criteria:

The student that is able to encounter struggle … to turn those struggles into a plan, to not collapse under that pressure. In our experience that's been the difference actually, the students that were successful' [P5, interview].

He also gave details of the of assessment process:

We do progress reports all throughout the course of the year … it's hard to describe it in a really kind of systematic way because it's very holistic in all cases … we're thinking both of their academic ability, so test scores … teacher evaluations. And … it's our experience with the students, their grades, their abilities, but it's also of course … their maturity, their leadership abilities, their self-advocacy capacity, their grit, that's a kind of … [P5, interview].

For to the university is not only the reason given by P6 in his assessment process; he also indicated the value of investment in the students' time and energy:

> Usually they can cover up in a lot of ways for their deficiencies … I challenge them … by doing a challenge it keeps ahead of them, keeps them invested [P6, interview].

Analysis of the school handbook (document 2) indicates that students can matriculate and enter the university after the following conditions have been met: successfully completing the spring quarter; obtaining the approval of faculty and the principal and director of the school; and demonstrating motivation. See section 5.5.1  for further explanation of students' characteristics.

## 5.9    Challenges and difficulties confronted by the US school

There was no specific question on challenges; however, the data revealed some challenges confronting the school which have to be considered to understand the school context and the potential of its components' transferability to Saudi Arabia. All the participants shared their opinions about the challenges and obstacles that confront them depending on their position. For example, P4 thought that getting known by others is one of the challenges that the school face:

> We are like a department on campus, but in many ways we're a little separate …Yeah, in many ways we're on the fringes of campus, and not a lot of people on campus know who we are [P4, interview].

P5 had different thoughts:

> It's a difficult thing, because by the time they're seniors, they don't really think of themselves as needing us … so if we say, hey we're having a big info session for all of our graduate seniors, not a lot of them will show up, so we're trying to figure out how to do this … so that's a big priority this year … and it's something I've been trying to emphasise [P5, interview].

The application of state policy was considered by P1 to be one of the challenges confronting the school: 'In this country, once they go to college we have what's called FERPA: Federal Education Rights Protection' [P1, interview]. The FERPA law is mentioned in the school handbook as follows: 'parents, under FERPA legislation, are not allowed to access students' grades without the

permission of the student' (document 2, p. 2). P1 expressed the difficulties of applying the law with the new parents:

> Well these students, most of their parents have been very, very involved in that, and so for us to tell the parents, sorry you can't meet with the counsellor and the student at the same when they're talking about their schedule or their major, it is very new for those parents, and we respect that right to privacy [P1, interview].

In addition, the school meeting agenda of 14 December 2015 included some concerns of the school such as funding and outreach expansion (see sections 5.3.2.4 5.5.4 ).

Difficulties inside the classroom also appeared, according to P7:

> So I think it's easy for the students to get really stressed out and start neglecting work, and just struggling, and I think if you have a teacher who is very understanding and is willing to accommodate … I think letting them know that being supportive can help them move at a pace that's good for them and do the great work that they're capable of [P7, interview].

P4 raised a social difficulty:

> The main challenge for both programmes is really the social aspect of it. It can be a little scary being young on campus when you're dealing with people who are in their twenties. I guess it's kind of hard to relate to people sometimes [P4, interview].

P3 stated a similar aspect of the social and emotional difficulties:

> When we bring them here, all of a sudden they're in a very different environment where they don't know how to be perfect; they don't know how to be the top student any more, and so that can bring up a lot for them, it can bring up a lot of emotional difficulties, they can get really anxious, they can get really depressed, they can feel really lost [P3, interview].

She added an explanation for the social and emotional difficulties:

> So what I've found is that first experience of challenge is really difficult for students, because they're used to being able to get perfect grades, or not work that hard; know how to access information, whatever else it is [P3, interview].

The differences between the systems in the high school and the college challenge the students, as P4 indicated: 'Also the independence of it, that you no longer just have the set class schedule that you're going to, and then you go to classes and then you go home' [P4, interview]. The expectation

of the students on themselves and from the teachers towards the students emerged in P6's conversation; he indicated an important issue about expectations from both sides:

> Just to give you another anecdote from last year. There was one student who was kind of reacting to the pressure … and there was some pushback, and like, 'You know what, I'm fourteen, you can't expect me to act like I'm twenty-two, or whatever, and it's like, 'I don't want you to be twenty-two, I want you to be fourteen, just not in my class'. No one is expecting you to grow up faster, but what we're expecting you to do is to add this to your skills set … and if you can't do that then … it just means you can't do this [P6, interview].

To sum up the previous section, the data revealed the physical and structural characteristics that shape the understanding of the educational setting at this US school. The leadership and personnel were discussed with a focus on the personnel roles and the recruitment approaches that the US school relied on, in order to have a better understanding of the leadership of the school. Identification processes of students and admission were also indicated. Programming, counselling services, and curriculum matters were covered, closing with the challenges and difficulties that confronted the US school. In the following section, I will explain how I draw a conclusion from the Stage One data to transfer to Stage Two that was conducted in Saudi Arabia.

## 5.10   Transforming to Stage Two

In this section, I discuss how I derived a set of principles from the findings of Stage One. These principles led to a number of questions for the Saudi experts in gifted education, in order to explore the potential of the transferability of the educational components of the US case study school to the Saudi context.

### 5.10.1 Principles derived from the analysis of Stage One data

In Stage One, the raw data from the fieldwork carried out at the US case study school was divided into codes, categories, and then themes, in order to identify potential educational components of the school. The themes that emerged from the data collected during Stage One served to answer the first research question. Through these themes, I derived a set of principles that helped me to construct an overview of what had emerged from the US school case study and what a special

school looks like, to take forward into Stage Two of this thesis. In my study, when referring to principles, I mean 'A fundamental truth or proposition that serves as the foundation for a system of belief or behaviour or for a chain of reasoning' (OED, 2017). I chose this explanation of the term principles, because the themes derived from the analysis in Stage One explained the educational components of the US case study school. These principles will form the basis of the questions I ask the Saudi experts in Stage Two. I have grouped the principles depending on the themes that emerged from the analysis of Stage One. **Educational setting** includes principles that relate to the physical and structural characteristics of the school, which is therefore comprised the physical and internal operations that enable the school to run sustainably. **Leadership and personnel** includes the structure, roles and tasks, recruitment, and personnel qualities; in other words, the tools that facilitate the daily running of the school. **Identification process** details the process of student selection, i.e. identifying and nominating students to enrol in the school. **School programmes** includes all the operations and activities formulated for achieving the school's vision and purpose (i.e. Transition School, Early Entrance Programmes, and The Academy). **Counselling** includes the activities and strategies of consultation, essentially the tools that assist students to stay on track. Finally, **Curriculum** includes the courses, teaching strategies, and assessment, demonstrating the input and output process of learning. I did not include Challenges as an educational component, as it is a current situation; however, it is worth inserting it as a future indicator that can influence the transferability process. Each principle has been supported by findings from the analysis of the three main sources of data in Stage One: interviews, observation, and documents. The following section discusses these principles in more detail.

### 5.10.2 Principles related to educational setting

1. Locating the school within the university campus allows the school to benefit from and capitalise on the university facilities, including technology, amenities, and learning resources such as laboratories.

2. Locating the school within the university campus facilitates recruitment of teaching staff since most of the staff of the US special school are also faculty members.

3. The number of accelerated students who attended university-based programmes is often a small cohort (Colangelo et al., 2004); it is therefore sensible to align the proposed school size in Saudi Arabia and school capacity with student numbers.

4. The school prepares gifted students for university life and supports gifted education research, since the school is part of the university, so the school seeks to build collaborative research partnerships.

5. The school goals are the product of teamwork, while the school's mission and vision are derived from the university's mission.

6. The school is sustained by reliable sources of funding from the State (i.e., superintendent).

7. Decision-making processes are carried out through consultation between the team or committee members and/or after extensive research. The decision-making process should be enacted through periodic committee meetings. Allowance should be made to solicit the views of parents and/or students for those decisions that directly affect the students.

8. Partnership with the relevant authorities (i.e. public school, gifted advocacy associations) can benefit the school in terms of gaining information, recruitment, experience, and practice localisation.

## 5.10.3 Principles related to leadership and personnel

9. Non-centralised work within the school has the potential benefits of creativity and a streamlined workflow.

10. The organisational structure should be horizontal in order to minimise bureaucracy.

11. The teaching and/or administrative personnel should be recruited from the university faculty as their proximity to the school premises, if they were on campus, would expedite problem-solving.

12. The personnel should possess number of qualities including appropriate academic qualifications, relevant teaching experience, a positive reputation, effective communication skills, and dynamism.

13. The staff might have dual roles, for example, being head teacher at the same time as being a faculty member of the university.

### 5.10.4 Principles related to the identification process

14. The selected students should possess a number of characteristics such as motivation, task commitment, and maturity.

15. Student selection goes through several stages including assessing the scores of the national abilities and performance instruments, academic transcripts, letters of recommendation, and interviews.

16. Student selection should make reference to demographic characteristics.

17. The school prepares a risk plan to address student withdrawals and outreach issues (i.e. the US school use the summer programmes for outreaching purposes).

18. The school has an outreach programme in order to attract gifted students.

19. Students who enrol in the school are motivated by their own desire to skip the ordinary school system and engage in a new challenge.

### 5.10.5 Principles related to the school programmes

20. The main role of the school is to prepare the students for college life through a special education programme.

21. Programmes include preparatory material for university life to facilitate students' transfer to the university.

22. The programmes must be appropriate for the students' abilities.

23. The school runs several programmes such as Summer and Saturday programmes for different student categories and for outreach purposes.

### 5.10.6 Principles related to counselling services

24. Social and emotional needs have to be considered in the school programmes through counselling services.

25. The counsellor is located 'in the middle' between the students, parents, staff, and other departments (e.g. the Psychology department in the university).

26. The counsellor plays a major role in the school, monitoring students' progress and welfare, taking responsibility for advising students about their academic and future careers, and providing social and emotional support strategies.

27. The counsellor meets with the students regularly through group and/or individual meetings, and keep in regular contact via email.

28. The counsellor has to be experienced and qualified to a minimum of Master's degree in a relevant major.

### 5.10.7 Principles related to curriculum

29. The curriculum includes courses that facilitate the smooth transfer of students from the school to the university environment (e.g. preparation courses that include registration to the universities and/ or dealing with faculty members).

30. The school syllabus prepares the students for the demands of university courses, including principal courses such as English, math, calculus, and science.

31. Teaching strategy concentrates on the higher skills of critical thinking that the students will need at university, including analysis, research, effective communication, argument, and creative writing.

32. Teaching concentrates on strategies such as field practice, investigation, reading, and discussion.

33. Assessment is conducted through exams, written assignments, and tests (quizzes).

## 5.11   Findings of Stage Two

In this section, I present the findings from the semi-structured interviews conducted with the ten Saudi experts to examine the potential transferability of the US school components to the Saudi context. The analysis techniques were explained in chapter 4. The following sections present the themes that emerged deductively from the findings in the same sequence as the categories of principles and themes in Stage One. The themes in Stage Two are presented with regard to their significance form the Saudi experts' points of views. A discussion of the findings will be given in the following chapter.

### 5.11.1 Educational setting component

This section includes the Saudi experts' opinions on the educational setting of the US school and the potential transferability of this component. Due the large amount of data in this component, the

section will be divided into Physical Characteristics (including the school location, capacity, and layout), and Structural Characteristics (including funding and resources, internal operations, and supporting organisations and partnerships).

### 5.11.2 Physical characteristics

**School location**

All the experts agreed to locate the proposed school within the university campus as to make use of the university facilities, environment, financial allocations, and manpower. Ex2 and Ex3 both gave the same reason for having such provisions within the university, namely, as an extension of the university to serve accelerated students. Ex2 mentioned the necessity of discussing this issue with the universities:

> … despite the integration between the Ministry of Education and the Ministry of Higher Education, the Saudi universities are still intellectually independent, right, so it would be better if we discussed the location issue with the universities after several meetings, research, and diagnoses, to determine the appropriate location for this school [Ex2, interview].

> Ex3, Ex6, Ex7, Ex9, and Ex10 suggested having this gifted school service as a separate

pathway within the relevant sectors within the university. Ex9 stated it thus:

> I believe that this school could be a path or unit within our gifted programmes as we have a new programme for gifted students in our Deanship for Academic Support in the university […] The unit can be followed up and tracked more easily than if it were a separate school [Ex9, interview].

Ex6 argued that it would be beneficial in separating the school administratively from the university:

> … the proposed school has to be located in one of our national universities and affiliated with the Rector [Chancellor], as this affiliation will make the school stronger financially and administratively. And I think King Saud University could be the most suitable environment for the proposed school due to its diversity of disciplines and strong financial base [Ex6, interview].

The director of the gifted programme at one of the prestigious Saudi Universities, Ex7, explained this:

We can offer a place for this programme to be opened as a unit within our gifted programmes. We have different branches of our gifted programme: one for girls and one for boys [Ex7, interview].

However, Ex4, the Dean of giftedness in one of the Saudi universities, suggested the following proviso:

It is a great idea; however, I think it would be better to start with one school as a pilot project, for example, in PNU [Princess Norah bint Abdulrahman University] or KSU [King Saud University], and then we can disseminate the idea among other universities after we have examined the project's outputs [Ex4, interview].


**School layout**

The layout of the school at this stage of launching this project in Saudi Arabia was not important, according to some of the ten experts interviewed. The written policy, programme design, and proposal procedure were seen as more important than the layout. While Ex1, Ex2, Ex3, Ex5, Ex6, and Ex9 responded to the question on the school layout, Ex2 deferred this issue to the universities, while Ex1 went further in specifying what is at stake: 'The issue is not having a separate building within the university; the issue is having a separate path for those students' [Ex1, interview]. Ex3 endorsed the view of Ex1, asserting that 'you don't need a separate building for running a school; you can borrow some offices from the deanship of the Preparatory Year Programme as they exist in all Saudi universities' [Ex3, interview].

Ex5 and Ex6 expressed similar opinions about where the universities could offer to locate a school. However, Ex6 indicated a number of issues that he felt to be more urgent at this stage than the layout of the school:

The Saudi universities can facilitate a placement for this project; however, the policy and curriculum content are much more important in the initial stage than is the layout. We need one classroom that we can use on Mondays and Tuesdays for Group A let's say, then Wednesdays and Thursdays for Group B and so on. However, the facilities should be different from the normal school [Ex6, interview].

The facilities of the special school in USA have different facilities from 'ordinary' schools; see section 5.3 for more explanation.

Ex9 expressed a different priority:

The layout of the school is not important at this stage; it is more important to write a

national proposal directed to the Rector [Chancellor] of the university. For this project, it is

important to follow these procedures [Ex9, interview].


**School capacity**

The experts agreed that the best way would be to start with a small number of accelerated students;

however, the reasons behind this varied from one expert to another. Ex1 and Ex2 stated that the

MOE statistics revealed that there are not more than 120 accelerated students in Saudi Arabia.

Similarly, the supervisor of acceleration, Ex8, spoke: 'We have our statistics; basically you will not

have a large number as we have around 120 accelerated students all over the kingdom' [Ex8,

interview].

Explaining to his colleague, Ex6 added:

The acceleration started two years ago. The total number of accelerated students in Riyadh

city is about nineteen students who are still studying in general education. However, the

governorates [provinces] surrounding Riyadh city have a few students [Ex6, interview].

Ex6 stated a preference for starting modestly: 'It would be better to start with a few students to

examine the practice without media propaganda' [Ex6, interview]. Ex4 and Ex5 expressed similar

opinions about starting small:

For starting such projects, it is better to start small with only a small number of students.

Once the practice has succeeded, the framework in its entirety can then be extended to

other universities' [Ex5, interview].

Ex3 had a different opinion about school size:

Universities have to accept whatever the number of accelerated students they receive from

the Ministry, as the Ministry of Education – who recently integrated with the Ministry of

Higher Education – is the principal body which approves acceleration in Saudi Arabia. So,

yes, they have to accept' [Ex3, interview].

Ex10 endorsed the view expressed here by Ex3: 'The capacity will depend on the students' desire,

let's leave it to them' [Ex10, interview].

However, Ex7 stated a more conditional view:

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We can offer as many places as we like to accelerated students, once the Ministry of Education has approved the policy of accepting young students to the university [Ex7, interview].

### 5.11.3 Structural characteristics

**Funding**

All the experts responded to the question on funding solutions and sources. Ex1, Ex2, and Ex8 agreed that the funds would come from the MOE due to the transition to Vision 2030. However, Ex1 explained it thus:

The funding will be a challenge; however, the new orientation of the MOE is to invest in the financial allocation. Each accelerated student will have saved the cost of their educational place, right, and that will give the chance to another student to fill the empty place [Ex1, interview].

Similarly, Ex2 stated this:

The policy makers in Saudi Arabia are supportive of gifted education, and the MOE will not hesitate to fund this project especially now that we have Vision 2030, and one of the goals of the Vision is to invest in human minds. However, the universities are independent in their allocations [Ex2. interview].

However, those who work in the universities have a different opinion on expenditure. For example, Ex3 indicated that 'the major focus of the financial allocation will be on the curriculum and translation process; we already have the personnel in the university' [Ex3, interview]. Ex7, Ex8, and Ex9 identified the body that is responsible for the school funding, namely, the hosting university. Ex7 stated this: 'The university can fund the projects. Our gifted programme can fund the proposed project if the university will benefit from it' [Ex7, interview].

However, Ex4 and Ex5 contended that the funding of the school should be an integrated operation between the relevant bodies:

…All the relevant organisations might fund and support this project […] Supporting the school will be a collaborative and integrative operation between the relevant organisations. However, the MOE might cover the salaries of the employees as it will now become one

ministry for general and higher education, while the universities will offer the property, facilities and personnel [Ex4, interview].

Ex6 went further and provided a solution:

The policy of the school has to be flexible enough to allow major Saudi companies or businesspeople or the private sector to provide subsidies and other financial assistance and donations. However, the main funds might come from the government [Ex6, interview].

### Internal operations: decision making and periodic meetings

Once the school is established, the decision-making procedure for the school operations would probably be centralised, as experts revealed. The experts suggested that the MOE would be the main body responsible for regulations and policies for the proposed school. Ex1, Ex2, Ex3, Ex6, Ex7, and Ex8 all agreed that the MOE would be the appropriate regulator. For instance, Ex3 from the university setting explained this in more detail: 'The Ministry of Education is the responsible body which can create regulations for the proposed school structures and accountabilities' [Ex3, interview].

However, Ex2, had a condition: 'Once this project has approval to apply in the Saudi context, then we will set the policy, strategies, and indicators for it' [Ex2, interview].

Ex6 pointed out that an accountabillity committee would be needed to deal with decisions concerning the school; however, none of the interviewees indicated who might be on this committee. Ex6 clarified this:

The system here in Saudi Arabia is different; the policy has to be built before launching the school, especially the vision and mission. The Ministry of Education will deal with this project as 'a project outside the general education line'. Projects such as these will need a higher committee in science and supervisory committees [Ex6, interview].

Ex8, from the Ministry setting, referred to the strength of the authority of the MOE: 'Commonly, the decisions come from the MOE whether in acceleration, matriculation, or accreditation' [Ex8, interview]. In addition, Ex9, who works in a university, mentioned the procedure for making a decision:

Usually, the decisions have been taken after rounds of meetings with the Dean. The Dean is the decision-maker in each deanship. So, in the case of this school or unit, it will follow similar rules of decision-making in deanships. [Ex9, interview]

However, Ex5 made a comment on the deficiencies on the decision-making operation:

The decision-maker needs maturity and audacity to make decisions. In addition, the decision making process is slow, so I think we need to have more speed in decision making [Ex5, interview].

### Supporting organisations and partnerships

There was agreement among the experts that the main educational bodies can be effective partners in launching and supporting the proposed school. The main bodies are the Ministry of Education, King Saud University, and Mawhiba. For instance, Ex5, who works as a consultant in one of the main bodies for gifted provision, highlighted the following:

… We considered the sustainability of services for gifted students in general education as well as in higher education. King Saud University has launched a gifted centre with three paths […] Some universities have a Deanship of Gifted Education or a Centre for Gifted Students such as Imam University, King Faisal University, and Taibah University as well [Ex5, interview].

Ex7 mentioned the internal departments that could support the proposed school:

Within […] the Deanship of Scientific Research, Deanship of Skills Development, Deanship of Student Affairs, and Deanship of Admission and Registration – all of these parties are involved in applying our programmes and activities [Ex7, interview].

Ex1 identified an educational body which can help in research: 'MOE is a supporter of this proposed school, plus the leading universities such as Jeddah University. The Chancellor of Jeddah University is open-minded about adopting these ideas' [Ex1, interview].

In contrast, Ex2, mentioned an internal sector which could be a partner in staff training:

We have an international programme for training the ministry leaders, teachers, and supervisors. We send them overseas to get experience in education and we employ them to train others [Ex2, interview].

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The team of Vision 2030 was mentioned by Ex1, Ex3, and Ex5 as supporting innovation in education:

… The logistics and structural support will be from the Ministry, which approved acceleration in schools. The 2030 project can also support the school, as one of the Vision 2030 goals is to support giftedness and innovation in Saudi Arabia and enable gifted students, and a large budget has been earmarked for this [Ex3, interview].

Ex5 referred to the ability of some organisations to facilitate implementation of the proposed school:

… The Ministry of Education and the Ministry of Planning and Economics [MOPE] can be the main essential bodies to support and implement this project, whereas the MOPE is responsible for the Vision 2030 of Saudi Arabia. Mawhiba could be a partner in this project as well [Ex5, interview].

In addition, Ex6 and Ex4 had similar opinions about the partners. For instance, Ex4 mentioned the potential role of leading national companies in supporting the proposed school:

I believe that the Arabian American Oil Company (ARAMCO) and the Saudi Arabia Basic Industries Corporation (SABIC) could be involved in supporting this school as they are concerned about innovation in Saudi Arabia [Ex4, interview].

She mentioned another partner who might facilitate in the qualification of the teaching staff: 'However, in […] University, we will offer a diploma for gifted and talented education so it can help in the preparation the teaching staff'[Ex4, interview].

However, Ex6 referred to another kind of partnership: '… plus the influential force in the community such as sheikhs. The gifted deanships in the universities can help in guiding you to launch these projects' [Ex6, interview]. Ex8, Ex9, and Ex10 expressed similar views to those of the other experts, although Ex10 underscored that: 'the relevant organisations have to collaborate to succeed in this project' [Ex10, interview].

### 5.11.4 Leadership and personnel component

The data does not show a preference for certain content and structure of leadership, but does suggest some examples of leadership. There is a general agreement among the experts about the personnel resources, where having personnel from the universities was the main suggestion. In

addition, the relevant deanship and/or department that advocates giftedness was mentioned as being able to provide specialists in gifted education. Furthermore, the MOE experts had a flexible policy towards borrowing professional staff, whether in counselling or giftedness, especially after the integration between the Ministry of Education and the Ministry of Higher Education. Ex2 explained this: 'After the integration between the two ministries it will be much easier to move our staff to offer some support to other agencies which are affiliated to universities' [Ex2, interview]. Ex6 endorsed this assertion:

> The MOE allows for part-time jobs for their employees, so we can get help from them in hiring part-time workers. However, this depends on the type of employee, as administrative staff are much easier to borrow as part-timers from the MOE than teaching staff [Ex6, interview].

Ex4 expressed a similar belief in the flexibility of the system:

> Our policy allows the staff to work with other institutions. So yes, I think moving the teaching staff between relevant departments will facilitate recruitment in the proposed school. It will also add value whether to the staff or to the university itself. [Ex4, interview]
>
> The use of the Preparatory Year staff to teach in the proposed school was one of the

suggestions put forward by Ex3, Ex6, Ex8, and Ex9. However, Ex3 added this:

> I think in the near future the Preparatory Year Programme (PYP) will be privatised and launched by private companies which will and already do recruit Master's and Bachelor's degree staff, because they teach the basics to the normal ability students, so they do not need to have PhD staff. However, we have to have criteria for hiring staff with high levels of skills in teaching [Ex3, interview].
>
> Ex4 believed in having imported criteria:
>
> We should import the criteria in selecting the teaching staff from the American school. For example, we received criteria for teaching staff from CTY in Johns Hopkins when we worked with them in our Domestic Summer Programmes … However, as administrative and teaching staff we can go with the same structure that the American school has. However, we will need to employ a security guard and public relations specialist [Ex4, interview].
>
> Ex6 added other required positions:

> In general, we have to have administrative and teaching staff, plus staff for students' affairs who are responsible for portfolios and records, plus coordinators who coordinate between the school and the faculty members. The contract is supposed to be flexible where you can dismiss those who are under-achieving in teaching [Ex6, interview].

He pointed out another important issue:

> From my experience in the Summer Programme, it is important to have a specialist in gifted education in these schools to help other staff in knowing the characteristics of gifted children and how to deal with them … However, we have a shortage of gifted education specialists [Ex6, interview].

Ex10 endorsed Ex6's view: 'The university has to recruit a team to track the gifted students' academic performance and behaviour' [Ex10, interview].

> However, Ex3 indicated this:

> Each university has a department or deanship that supports gifted students, so they can supervise the school as they have specialists in gifted education, in alignment with the Preparatory Year staff [Ex3, interview].

### 5.11.5 Identification process component

The participants from the Ministry background revealed the pre-existing acceleration policies in the MOE; for example, students in the general education system have the right to be accelerated twice in the educational ladder in Saudi Arabia. The MOE require a set of criteria to be met to allow the students to go through an acceleration procedure, such as achieving ninety-eight per cent in their academic record, passing national ability instruments, and passing the interview carried out by the acceleration committee in the school, plus passing tests for the next academic year with no less than a score of fifty in each module. For example, if a student wants to accelerate from year seven to year nine, they must pass the year eight curriculum content test that is set within their school. The decision on acceleration for each group is taken by the Minister of Education. The acceleration policies in the MOE were explained by Ex1, Ex2, and Ex8, who work in the Central Committee of Acceleration. The participants from the Central Committee of Acceleration background support the existing structure; however, they do not necessarily suggest importing these policies into the proposed school, as Ex2 explained:

Our accelerated students are already filtered; they went through stages of filtering. It is

impossible for any students to enrol in the university without going through two stages of

the Qiyas [the Saudi national test] tests of academic performance and abilities that were

administered in the eleventh and twelfth grades. Plus, we have our instruments that we

apply to third, sixth, and ninth grades [Ex2, interview].

Ex1 agreed and added this:

We changed the acceleration policy this year; we tighten the pool to include just the top

two percentile, who pass Mawhiba mental ability test and pass the academic requirements

[Ex1, interview].

In addition, Ex8 endorsed her colleagues: 'The accelerated students have a one-month trial before

deciding to continue in acceleration' [Ex8, interview].

Ex1 revealed that the MOE reviewed the admission and registration policies of the

university and found that there is no condition on age.

In spite of that, Ex9, believed that admission policies would be a challenge:

I think the biggest challenge that will face such a project is the admissions policy,

as we need to review our policy to align with the proposed school admissions policy [Ex9,

interview]

Her colleague, Ex10, suggested this: 'I am not sure if we can change our policy in the university;

however, I believe that we should do it to meet global standards in education' [Ex10, interview].

However, Ex4, stressed the need to follow the Saudi admission policy for gifted

programmes and suggested this:

I think we need to conduct a specific instrument, such as Gardner (MI) instrument, to

assess the students' abilities before involving them in the proposed school. In addition, we

should follow the Saudi admissions criteria for gifted programmes, such as applying the

Qiyas test[1], Mawhiba test[2], passing interview, teachers' recommendation letters, and two

years of academic performance transcripts [Ex4, interview].

In contrast, this was Ex3's suggestion:

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[1] Qiyas Test is a group admission test for college admission in Saudi Arabia that diagnoses the general mental ability of students in eleventh and twelfth grade.

[2] Mawhiba Test is to diagnose latent academic and mental abilities and skills in language, Science and Mathematics, and some aspect of creativity. The test is presented in collaboration between Qiyas Centre, Mawhiba, and MOE and it is available for students in third, sixth, and ninth grades.

It is better to insert a pre-test in the disciplines, such as a pre-test in calculus. We have to adopt the US school policies in terms of changing ours to accept elementary school students to enrol in the university, so why has the MOE decided to have acceleration in our schools without facilitating a flexible policy? [Ex3, interview].

However, Ex7 confessed that 'there is no clear procedure for accepting these young students; it all depends on the policy of the Ministry of Education' [Ex7, interview].

On the other hand, Ex6 asserted that 'the admissions criteria have to be linked with the university criteria' [Ex6, interview].

In addition, Ex5, the consultant in Mawhiba, mentioned a number of essential points that could shape the admissions criteria for the proposed school:

The acceleration decision for a student should not be done by a school where the school tests are not standardised. In addition, the Mawhiba test measures only mental ability while the proposed school must insert an academic aptitude test [Ex5, interview].

**Outreach to potential students**

One of the key elements to establishing a special school in Saudi Arabia referred to by experts was reaching out to potential students. A few of the experts expressed recruitment strategies for reaching out to potential students. Ex3 and Ex4 suggested using summer programmes as a gateway for outreach purposes, but using different organisations:

We should have awareness activities for the needs of this category. Each university has a special department or deanship that supports gifted students, so their summer programmes could help in outreach [Ex3, interview].

In addition, Ex4 reported: 'We could use the Mawhiba domestic summer programmes for outreach purposes' [Ex4, interview].

Ex8 endorsed Ex4:

The starting gateway will be the Mawhiba Scale [Qiyas Scale]; you can reach the students list from that. However, we have our programmes to raise awareness about acceleration that is directed to parents, students, and schools. The supervisor of the acceleration system in each gifted department visits the schools to conduct these awareness programmes [Ex8, interview].

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Furthermore, Princess Norah University (PNU) has its summer camps that can be useful as well, as Ex10 indicated:

The summer camp at PNU allows them to meet students with different above-average abilities. It can be used as outreach to the students, to talk about the services at the university and the programme's features [Ex10, interview].

In contrast, Ex6 had a different view about outreach activities:

The differentiated curriculum will attract the students more than anything else. If the students find a challenging course and a varied learning environment that is not found in the ordinary school, the students absolutely will come to the school by themselves. Plus, the flexibility in the timings of the proposed school means that it would be better to run it not more than three times a week [Ex6, interview].

### 5.11.6 Focus of the school programmes component

The views about the possible school programme were varied, the variation coming from interviewees' positions and backgrounds plus their understanding of the term programme. On the basis of the evidence from the interviews with the Saudi experts, the Saudi interpretation of the term 'programme' is different from the US definition. It is understood to be the content of the curriculum, while in the US context the programme was a series of educational plans and activities to be followed to achieve a purposeful end.

For instance, Ex1, Ex2, and Ex8 proposed activating the STEM (Science, Technology, Engineering, and Math) programme that had recently been launched within the MOE schools, as Ex2 indicated: 'The STEM programme raises the number of participants in the STEM schools' [Ex2, interview].

Ex8 added another requirement for designing the gifted programme for the proposed school:

I suggest inserting the STEM curriculum into the school programme, as STEM enriches the students in Math and Science; plus, the courses in counselling and skills development [Ex8, interview].

However, Ex1 pointed out the central role of the universities in setting the programme:

We offer a programme concept to the universities, we inform the universities about our latest statistics, and then we leave the final decision to the universities to react to our statistics [Ex1, interview].

Those working in the universities wanted to integrate the proposed programme with the universities' preparatory or foundation year; for instance, Ex3 commented thus:

As you know, we have the Preparatory Year Programme in each university and for each discipline. For example, the Arabic language and Sharia sections have their Preparatory Programmes which last one semester, medicine has a one-year Preparatory Programme. So it will be a preparatory-based programme [Ex3, interview].

Regarding content and preferred language of instruction, Ex3 added that 'it is important to insert enrichment courses' [Ex3, interview]. Further, Ex4 stressed that 'we need to adjust their programme and their courses to align with the Saudi context. In addition, our Preparatory Year Programme is delivered in English' [Ex4, interview].

Ex9 mentioned the preferred philosophy of the programme:

We need to involve the faculty in the Preparatory Year Programmes to build the programmes of these schools or these units, as the American school rests on a preparatory philosophy [Ex9, interview].

From the interviews, Ex7, who has a university background, proposed that the school should adopt an existing structure for gifted programmes:

We have gifted programmes that already exist with four levels for those who are already enrolled in the university. First, the preparatory level which identifies the highly capable students. Second, the general preparatory level which is overseen by the deanship of skills development, where courses in language, computers, academic, and personal development are offered. Third, internships where the students can meet experts and professors to gain knowledge in their major. The last level is the advanced preparatory where the students can carry out research with a faculty member and publish it [Ex7, interview].

Ex10 added further features that the programme should aim for:

The programme must be a rigorous one that meets the accelerated students' needs, something that allows for acquiring high level skills. I remember in my class when I was studying in the USA that some students were able to attend courses in the university while

they were still in high school and they got credits once they registered at the university. We should have something similar to this [Ex10, interview].

## 5.11.7 Counselling services component

All the experts agreed on the importance of having counselling services in the proposed school. In addition, some experts went further by stipulating the qualifications of the counsellor and their accountability [responsibilities]. The MOE offers counselling services for the accelerated students who are still studying in the general education system. Ex8 explained this:

> The Central Committee of Acceleration includes members from the Gifted Directorate, the Counselling Department, and Supervision Department. The counselling members are responsible for monitoring the issues of accelerated students, whether before or after acceleration [Ex8, interview].

Furthermore, Ex3 commented on the importance of counselling:

> This category of students has high ability in academic performance, mental, and intellectual abilities, therefore, they have an issue in social adjustment even in their families. So if we do not concentrate on counselling we might lose them by way of withdrawals, low achievement, and so on [Ex3, interview].

Ex4 had a similar point of view through her experience in working with gifted students:

> Working with gifted students is not an easy job to do; they have high self-esteem; they don't want you to direct them in how to do the stuff. It is hard to convince them. Also, dealing with students in year eight is different from dealing with those in year ten as there is something called the determination of age. So I think the school will need two counsellors and a number of coordinators to help and support the counselling services as it will be the main service [Ex4, interview].

Ex10 expressed the importance of counselling to maintain student engagement:

> Yes, we need a strong counselling programme, as many of the undesirable behaviours that come with gifted students are from boredom with the ordinary curriculum [Ex10, interview].

However, in her earlier conversation, Ex3 revealed this:

Despite the efforts that have been made in counselling, we still have a major problem with

counselling in Saudi Arabia. So, it is better to adjust the US school's counselling

programmes and translate them to Arabic [Ex3, interview].

However, interviews indicated that the MOE has made efforts in counselling service

improvement: 'We work with the universities to collaborate our efforts with them whether in

teacher training or counselling service, and there is coordination on this level' [Ex1, interview].

Ex2 endorsed this: 'We have our professional counsellor whom we can nominate to do counselling

or training in counselling' [Ex2, interview].

The qualification and accountability of the counsellor was mentioned by Ex5, Ex6, and

Ex9:

If the school is located in the university, that means that you have a Department of

Psychology or Department of Education or Social Science where you can get a

professional counsellor. The counsellor must have at least a Master's degree, whether in

gifted students counselling or counselling and guidance in general [Ex5, interview].


The counsellor is essential in the school as they will be the link between students and

faculty members. The counsellor has to train faculty members, also the parents, about the

gifted child's characteristics […] the private schools have a part-time professional in gifted

education [Ex6, interview].


We have a deputy dean who specialises in emotional and social counselling and she is a

professor, so she can help in designing the counselling services for this proposed unit [Ex9,

interview].

Despite the significance of the counselling service in the gifted programme, as revealed in

the experts' quotes whether in counsellor qualifications, resources and accountabilities, the KSU

gifted programme claimed that they had an existing gifted programme within the university.

However, the KSU gifted programme has not included the counselling service, plus their

programme is not directed at the accelerated students (see the School Programme section).

However, Ex7 determined the appropriate period of time for counselling: 'Three to four

weeks of counselling will be enough to prepare accelerated students for college life' [Ex7, interview].

## 5.11.8 Curriculum component

In this section, in the Saudi context, 'curriculum' means, the methods and activities of teaching that includes modules or subjects, teaching strategies, and assessment. However, opinions about the curriculum for the proposed school varied, as some of the experts proposed applying the Preparatory Year curriculum that already exists in the Saudi universities, whereas others suggested translating the US school curriculum and adjusting it to the Saudi context. However, both an accelerated and enriched content were mentioned repeatedly. Ex3, Ex5, and Ex9 asserted that the curriculum has to be a preparation for college life and which included other advantages:

> Acceleration programmes are economic and cost less, and they offer enriched curricula in a short time. The proposed school must have a preparation curriculum for accelerated students in universities, plus applying an acceleration procedure in the university courses [Ex5, interview].

> Ex3 made reference to potential directions:

> I know that some parts of the curriculum in the Preparatory Year programme may match the goals of the proposed school. However, we have options: whether to translate the US curriculum and adjust it within the Saudi context, or whether to design our own curriculum in line with the US school syllabuses [Ex3, interview]

Through her own practice, Ex4 agreed that either strategy would be possible with the translation idea:

> We can apply the American school curriculum or we can translate it into Arabic … In some courses, the Saudi students are obligated to learn some courses in English language. For example, the Mawhiba Enrichment Programmes which were imported from CTY are delivered in English [Ex4, interview]

In addition, Ex4 mentioned the standard that they follow: 'Our university is subjected to the International Academic Accreditation which is from Stanford University' [Ex4, interview].

> Ex1 stressed the issue of having the basic modules:

The curriculum will not be different from the US school, as maths, calculus, science are already taught in the Preparatory Year in the Saudi universities, and it is compulsory for enrolment into university [Ex1, interview].

Ex7 mentioned the curriculum that they taught in the gifted programme in their university:

Our programmes […] contain several courses that focus on academic and personal development, such as English and Arabic language, decision-making skills, communication skills and leadership skills [Ex7, interview].

Ex6 agreed about the basics of the curriculum:

The targeted category is one concrete category; however, they are different in their needs and attitudes. So the curriculum has to cover the basics such as academic writing, communication skills, thinking skills, and research skills [Ex6, interview].

Ex 10 endorsed Ex6's view: 'The enrichment curriculum will be advantageous to the school. The gifted students always want fast, intensive, and enriched courses that challenge their abilities' [Ex10, interview].

The following quotes illustrate the perceived importance of building on the existing curriculum in the relevant organisations that might support the proposed school:

We need to involve our Preparatory Year programmes to build the curriculum of these schools or these units … However, I think we need to add some courses that we have already designed in our deanship for gifted students, such as creative thinking skills [Ex9, interview].

We have thirty-two schools who have applied the STEM strategy. Within these schools we have a special classroom for gifted students. I suggest that agreeing the curriculum will take place after meetings with the relevant committees who will look carefully at the content. [Ex2, interview].

### Teaching strategies

The following skills were mentioned in the all experts' conversations on the teaching strategies: academic writing, discussion, creative thinking skills, problem-solving, investigation, and research

skills. However, there are some other skills mentioned by the experts. For instance, Ex 9 added professional development component: 'Attending international conferences will be important to this targeted category' [Ex9, interview], whereas Ex8 reported thus:

In addition to the STEM curriculum it might be better to insert courses that teach how to deal with professors, internship, managing projects, and problem-solving [Ex8, interview].

Ex10 favoured inserting student internships within the teaching strategies:

From my experience, internship and fieldwork are important to gifted students. The gifted students like to have training and they have done well, actually, when we sent them to other partners [Ex10, interview].

Ex7 revealed the teaching strategies in their gifted programme: 'We rely on internships [apprenticeship] to ensure that students gain knowledge' [Ex7, interview].

Ex 6 added an important strategy: 'The teaching staff have to use advanced strategies when thinking out their courses, for example, practical solutions for contemporary problems' [Ex6, interview].

Ex1 stressed one issue: 'It would be better if these skills were delivered based on their needs and capacities' [Ex1, interview], and Ex3 mentioned this as well: 'The differences will be in the number of skills that the accelerated students have to be taught, as they need to be enriched in these skills' [Ex3, interview].

**Assessment**

Only seven out of the ten experts responded to the assessment question. However, the comments of the experts were principally about pre-assessment or pre-entry assessment for screening purposes. The findings show the importance of having a specific pre-assessment test that diagnoses the level of the accelerated students who will be involved in the proposed school. Ex3 raised the issue of having assessment: 'It is essential to have initial assessment' [Ex3, interview], and Ex4 further endorsed this: 'I believe that having pre-assessment and post-assessment will be more effective in examining the school's outputs' [Ex4, interview].

Ex5 emphasised pre-assessment:

The acceleration system here relies on academic performance as a means. I think we need to have an aptitude assessment to see if the student is able to join [the] acceleration programme [Ex5, interview].

Ex8 endorsed Ex5's view:

In spite of applying different instruments to diagnose the students' adjustment in acceleration, plus the teacher follow-ups and observations, the students have to pass an initial test for aptitude to enrol in the preparation programme for university [Ex8, interview].

Ex10 added a practical solution to hasten the acceleration procedure in the universities, even without a specific aptitude test: 'I think pre-quizzes on the university modules can illustrate the student level' [Ex10, interview]. In addition to that, Ex2 specified details: 'Consideration of social, emotional, and personal assessment of the school programmes will give power to the assessment' [Ex2, interview], while Ex7 revealed the assessment aspects of the gifted programme at KSU, saying that 'we focus on fluency in English language, good computer skills, good communication skills, and publishing at least two articles in (International Scientific Indexing) ISI journal' [Ex7, interview].

### 5.11.9 Potential challenges faced by the proposed school

In addition to the admission policies, the findings reveal some challenges that might face the proposed school. Some of the challenges that arose in Stage One were not present in Stage Two, and vice versa. For example, students' withdrawals were a challenge in Stage One (although these were rare cases), whereas in Stage Two they were not, as revealed by Ex2: 'We have just one student who withdrew from acceleration since we started this practice and the reason was family pressure to sign out of the acceleration' [Ex2, interview].

The following quotes by the experts express the main challenges, which are bureaucracy in adopting new policy, media, qualified staff, financial allocation, and awareness of family pressure: 'The bureaucracy will be the major challenge in changing policy' [Ex1, interview].

Ex2, from a government sector background, said this: 'We have a major step towards education reform but, unfortunately, we do not have mature media' [Ex2, interview]. The immature media may be the cause of the media blackout practised by the MOE.

Ex3, working in localising international programmes, mentioned another challenge:

> The application of this project. We always bring bright ideas, whether from the US, such as
> McGraw-Hill, or UK, or Australia, but without transferring their regulations and policies.
> However, we must adjust these regulations and policies to be in line with our system [Ex3,
> interview].

Ex4, who mentioned that the Imam University intend to operate a diploma programme for gifted education, indicated this: '[…] still face some obstacles in hiring qualified staff who will work closely with gifted students' [Ex4, interview].

Ex6 agreed; however, he thought the financial situation could be a challenge: 'The major challenges that might face the proposed school are: policies and regulations, financial allocation, qualified personnel, and the scientific content' [Ex6, interview].

Ex5, working in a semi-governance organisation that operates itself, commented thus:

> The financial allocation will not be an obstacle. However, bureaucracy could be one of
> the challenges facing the proposed school. Nevertheless, the idea is promising [Ex5,
> interview].

From a practitioner's point of view, Ex8, the supervisor of acceleration, pointed this out:

> Acceleration as a process is overwrought and has a lot of pressure from the parents or
> from the students themselves … The obstacles, as you know, are the routine and courage in
> making a decision [Ex8, interview].

Ex 10 agreed:

> Sometimes we face problems with the parents. They do not want to involve their kids in
> gifted programmes in the university, so I think providing the schools with an enriched
> curriculum could help in that [Ex10, interview].

Thus, the challenges that might face the Saudi proposed school are different from those that confronted the US school due to the differences in cultural context and the longevity of the US school. Despite the variation in challenges between two contexts, however, once the Saudi proposed school is established, it might confront similar challenges to the US school, such as the students' social engagement, the neglecting of alumni, and students' withdrawals (see section 6.10 for more details).

## 5.12 Summary

This chapter presented the main components underpinning the US case school which are: Educational Setting (which includes the Physical and Structural Characteristics), Leadership and Personnel, the Identification Process, Focus of the School Programmes, Counselling Services, and Curriculum. A set of principles were derived from the Stage One data analysis, and the principles were converted into questions that were presented in Stage Two in Saudi Arabia. Ten Saudi experts in gifted education were interviewed to discuss the potential transferability of the US school components, and the extent of its suitability if adopted in the Saudi context. The next chapter will discuss the findings from both stages.

# 6. Chapter Six: Discussion

## 6.1    Introduction

This study was conducted in order to explore the components of one US special school, and the potential transferability of these components to the Saudi context from the opinion of a group of Saudi experts within gifted education. This study was divided into two stages: Stage One was a case study conducted in the targeted school in the USA, and Stage Two was conducted in Saudi Arabia. The study utilised three approaches to data collection: in the USA, document analysis, semi-structured interviews with the US school staff, and observations; and in Saudi Arabia, semi-structured interviews with Saudi experts in the field of gifted education.

The findings from Stage One led to the formulation of a set of principles that were derived from the main themes and then clustered depending on the themes (see figure 4.2). The themes constituted the main components of the US school. The findings of Stage Two centred on the potential transferability of these components to another context providing gifted provision. The similarities and differences that emerged among the themes in Stages One and Two, the cultural and practical reasons for them, and their implications will be discussed in this chapter.

## 6.2    Components emerging from the case study

The components of the special school that emerged from the Stage One data analysis from the US special school were: educational setting of the school, leadership and personnel, identification process, focus of the school programmes, counselling services, and curriculum. There are similarities between the components emerging from this study and the components identified by Clark and Zimmerman (2002), who used the US programme (SMPY) as a prototype for initiating a newly conceived programme and set of recommendations for a residential special school in Israel. Clark and Zimmerman considered four components: students' identification and characteristics, teacher selection and strategies, curriculum content, and educational setting and administrative arrangements.

The case study method used in this thesis revealed new essential components that were not mentioned either by Clark and Zimmerman or by Renzulli and Reis; for example, in Clark and Zimmerman 2002 (section 3.6.1.2 ), the school programme component was embedded within the

curriculum content, whereas the findings of this reseach revealed that this component is an independent one. In addition, the educational setting component was limited in Clark and Zimmerman, whereas this research expanded this component to include physical and structural characteristics. The curriculum content component in Clark and Zimmerman (2002) was also limited, whereas this research extended this component to include teaching strategy and assessment. The following section and table 6.1 describe the components that emerged deductively from Stage One.

Table 6.1 Comparisons between the components in the literature and the components that emerged inductively in Stage One

| Components by Clark and Zimmerman (2002) | Selected Components by Renzulli and Reis (1997) | Components used as lenses in preparing the interview question in Stage One | Components explored inductively in Stage One |
|---|---|---|---|
| Educational setting and administrative arrangements | Organisational components: procedures for staff teaming and interaction, material, database, community involvement. | Educational setting | Structural characteristics: school mission and vision/ goals/ funding and resources/ decision making operation and supporting organisation and partnership. |
| Teacher selection and strategies | | Leadership and personnel | |
| Student identification and characteristics | Service delivery components; Total Talent Portfolio (TTP), Curriculum modification techniques, Enrichment learning and teaching. | Identification process | Outreaching to potential students |
| Curriculum content | School Structures; Enrichment cluster, Regular curriculum, Continuum of special service. | School programme | Counselling services |
| | | Curriculum | |

In addition, comparison between the dimensions of the SEM model by Renzulli and Reis (1997) (section 3.5 in chapter three) and the components in this study shows that there are convergent

points between them, and the table 6.2 illustrates this. The organisational components are resources used to support programme development, such as procedures for staff teaming and interaction (Renzulli & Reis, 1997; 2012), which converge with the leadership and personnel component in my study. The focus of the leadership and personnel component which emerged from the Stage One analysis was on the leadership content, structural roles, and organisational relationships between staff. In addition, the Total Talent Portfolio Component in the second dimension of Renzulli and Reis's model (1997) focused on systematically gathering and recording information about students' abilities, interests, learning styles, preferences, and achievements; these were consistent with the identification process component that emerged from this study (see section 5.5 ). In a similar vein, concerning the Saudi proposed school, Expert 6 asserted the necessity of having a system to record the students' information:

> The most important thing that you need in the students' affairs is the recording files where there are materials to record all the courses that the students took and all the achievement, because students' affairs will be the most direct contact with the students [Ex6, interview].

Furthermore, in the SEM 'curriculum modification technique' dimension, which a school can use to assign the mastery level of gifted students in specific curricular material, can be used to adjust the curriculum to meet the students' needs. This component/dimension emerged in both Stages One and Two in this thesis. In Stage One, the US school relied on a pre-assessment test during the summer before the students enrolled in the school in order to adjust the curriculum to meet the students' needs. Similarly, in Stage Two the experts suggested having a pre-assessment technique to identify the mastery level of the students. In addition, the 'enrichment learning and teaching' component by SEM appeared in the US case school in the form of the Summer Programme and Saturday Programme. This endorses the view that the SEM model may help Saudis in understanding the US school components and the potential transferability of the components, where the SEM assigned a number of components/dimensions in order to improve a school to meet the needs of gifted students. Concurrently, as revealed by Ex3 and Ex10 in section 5.11.6 , enrichment courses and activities were a requirement for the Saudi proposed school, which indicates the importance of having enrichment strategy within the gifted curriculum.

Lastly, the components which emerged in both stages were consistent with some of the areas that Callahan, Moon and Oh (2017) used to evaluate the practices and procedures for

describing and understanding the current status of gifted education in USA. These areas were: administration (staffing), identification of gifted students, curriculum and instruction, programme delivery models, financing, programme evaluation, teacher qualification requirements, and professional development, which can confirm the main components for gifted intervention. Therefore, the gifted advocate institutions and practitioners have to consider these components in developing and operating gifted intervention in a similar context to this study.

Clark and Zimmerman (2002) asserted the need to have a battery of instruments that includes structured and non-structured nomination, achievement test scores, academic records, grades in specific courses, informal instruments, portfolios, interviews, and observation. These components of the identification battery were applied in the US case school and the Saudi experts called for some these components to be included with the admission criteria for the Saudi school. Ex6 recommended this:

> We should follow the Saudi admissions criteria for gifted programmes, such as applying the Qiyas test, Mawhiba test, passing the interview, teachers' recommendation letters, and two years of academic performance transcripts [Ex4, interview].

However, none of the data from either of my two stages supports using observation as a method to identify gifted students for enrolling in acceleration procedures, unlike some research which has endorsed using observation for identifying underachieving gifted students (e.g. Cavilla, 2017).

Clark and Zimmerman (2002) recommended that gifted students should demonstrate their commitment to participate in intensive programmes. This recommendation appeared in the US case school, where having maturity is a condition of enrolment. The US admission team, influenced by the Hollingworth's definition (1972) (see section 3.2.1), determine it by interviewing the applicants. However, in the Saudi context, maturity and commitment were not viewed as necessary, and this may be attributed to the newness of the project, as it has not yet been applied in Saudi Arabia and the participants have not yet faced issues with the gifted students' transition to college (see Sayler et al., 2015).

Table 6.2 Comparision between SEM components and the emerging components in this study

| Dimensions/components by SEM | Corresponding components in this thesis | Summary of similarities and differences |
|---|---|---|
| **Organisational components:** procedures for staff teaming and interaction | Leadership and personnel | Similarities in the operations of each component and difference in providing details for staff roll plus counsellor role and services. |
| **Service delivery components:** Total Talent Portfolio (TTP) | Identification process | Requirement of the TTP application has appeared in the US case school and as a requirement in the Saudi proposed school. The difference in my study was including the admission process in detail. |
| Curriculum modification techniques | Curriculum Focus of the School Programmes | This component was applied in the US school and is required for the Saudi proposed school. A description of the course syllabus was provided in my study. In addition, the teaching strategies used in the US school. |
| Enrichment learning and teaching | Teaching strategies Focus of the school Programmes | US school applied this component in Summer Programme and Saturday Programme. Inserting enrichment into the curriculum was emphasised by the Saudi experts. A detailed description of the teaching strategy was provided in my study. |

## 6.3 Principles derived from the data analysis of the case study

As set out in chapter three (section 3.5 ; 3.6.1.2 ), the SEM by Renzulli and Reis (1997; 2012) and the recommendations of Clark and Zimmerman (2002) were used in my study to constitute the principles that emerged from the analysis of the data in Stage One. They helped to narrow the focus of the principles in Stage One in order to obtain an understanding of the US school case (see table 4.8).

The findings show that similarities between the principles emerged from Stage One analysis and the conclusions by SMPY (Brody et al., 2015). For example, SMPY assumed that the

highly able students may need to have access to more differentiated content and/or programmes, and to an above-grade level curriculum; and that educational programmes should be personalised for the advanced academic students, to suit their individual needs. These conclusions are in line with the principles related to the school programme and the principles related to curriculum in my study. SMPY also assumes that if the high ability students are not challenged enough, they might be at risk of failing to achieve their potential, which is correspondingly mentioned by Saudi Expert 10:

> It is important to know how to deal with them, how to benefit from their wealth of ability, instead of making them bored and upset, which may lead them to emigrate from the country to follow their passions and needs [Ex10, interview].

Table 6.3 presents more intersections between the SMPY conclusions and the principles and findings of this study.

Table 6.3 Intersections between SMPY conclusions and the findings and principles of this thesis

| SMPY conclusions (Brody et al., 2015 ; p. 163-164) | Similarities and differences with the findings in this thesis |
| --- | --- |
| Above-grade-level assessments are crucial for estimating high-performing students' true level of ability or achievement. It is never the only factor that should be considered, but the information can help differentiate students for whom challenging grade-level work is appropriate from those who might be ready for content typically offered to older students. | This thesis showed that the students have to go through a set of instruments to address their aptitudes to enrol on an intensive intervention. Stage Two findings showed that it is crucial for the Saudi proposed school to consider the aptitudes and ability tests in advance of enrolling the students. |
| Students need to be taught at their optimal level and pace of learning. Advanced learners may need to proceed at a faster pace than other students of their age and/or have access to more advanced content. | This study asserted that the teaching strategy for accelerated students has to concentrate on the higher skills of critical thinking that the students will need at university, including analysis, research, effective communication, argument, and creative writing. Locating the school within the university campus might allow the students to benefit from and the university facilities, including technology, amenities, and learning resources such as laboratories. |

| SMPY conclusions (Brody et al., 2015 ; p. 163-164) | Similarities and differences with the findings in this thesis |
|---|---|
| Students with advanced academic abilities are at risk of failing to achieve their potential if they are not adequately challenged. In particular, a lack of interest in learning, poor study skills, and negative social and emotional traits can result when students are consistently unchallenged in school. | This study showed the significances of the counselling services as students' social and emotional needs have to be considered in the school programmes. The counsellor plays a major role in the school, monitoring students' progress and welfare, taking responsibility for advising students about their academic and future careers, and providing social and emotional support strategies. In addition, the school which intends to adopt an intensive intervention has to prepare a risk plan to address student withdrawals and outreach issues. |
| The more talented/advanced the students, the greater the need for a differentiated programme. Of course, this depends a great deal on the level of challenge in the regular programme, but students at the upper end of the continuum in ability and/or achievement may need access to an above-grade level curriculum. | This study negotiated the significance of enrolling the gifted students in university-based programmes that can fit with their academic needs. The main role of the university-based programme is to prepare the students for college life through a differentiated curriculum. |
| Students with advanced academic abilities vary greatly in their specific abilities, content knowledge, interests, motivation, goals, personalities, and learning styles; and these differences result in differing educational needs. This is the primary reason for educators needing to personalise educational programmes for individual students | This study revealed similar characteristics of gifted learning preferences and abilities. The university-based programme has to be appropriate for the students' abilities and needs. In addition, this study highlighted the importance of giving individualised attention to students, with an aim to adopt an individualised learning approach for the school, which is intended to simulate the US case acceleration programme. |

| SMPY conclusions (Brody et al., 2015 ; p. 163-164) | Similarities and differences with the findings in this thesis |
|---|---|
| School programmes can be enhanced for advanced students with curricular flexibility and articulation at the next level. This can include letting them take classes with older students, providing options for independent and/or online work, and giving credit for content mastered outside of school. | This study highlights the teaching strategies used in the US case school, such as field practice, investigation, reading, and discussion. In addition, this study has negotiated home schooling in form of virtual schooling, mentioned the early entrance programmes as an option for the gifted learners, and stressed the importance of internships for gifted students in order to acquire advanced skills. |
| Students with advanced academic abilities can increase their learning opportunities by participating in supplemental educational programmes and extracurricular activities. These programmes also allow students to interact with peers who share their interests and abilities. | |
| Mathematically talented students, while moving ahead appropriately in mathematics, should also gain a broad background in the liberal arts. Students need to prepare to be educated adults and not just prepare for a future career. | This study has shown the importance of maturity for gifted students who intend to apply for an intensive intervention. For example, the US case school prepares the students to be effective citizens, providing them with future career counselling services. This was supported by the Saudi experts as well. |
| Students with advanced academic abilities need access to role models and mentors who can provide insight into real-world applications of learning. It can help them establish academic goals for the future and solidify career goals. | This study supported the idea of locating the school within the university campus, so the students can benefit from the location's facilities and academic ethos. This study also emphasised the quality of the teaching staff who have daily dealings with the gifted students, and the role of the counsellor in monitoring students' progress and welfare, taking responsibility for advising students about their academic and future careers, and providing social and emotional support strategies. |

## 6.4    Component 1: educational setting

### 6.4.1 School location

As one component of a gifted school, Clark and Zimmerman (2002) recommended a differentiated educational setting that allows the gifted students to have suitably equipped classes, up-to-date labs for special study, professional level books, slides, and scientific journals and periodicals. Tan et al. (2016) similarly pointed out the impact of the environment on the gifted students' creativity, as the environment is a shared system of cognition, behaviour, and values, in which individuals interact. In the Saudi context, Al-Zoubi and Bani Abdel Rahman (2016) recommended that the Saudi gifted programmes' location should include science laboratories, a library, a computer lab with Internet access, a stadium, and a theatre. Consistently, the findings from all resources of the US case school demonstrated the significance of locating the school within the university campus, whether in having access to the academic resources and technology, facilitating staff recruitment from the university itself, or affiliating to the Dean of Academic Affairs thus giving the school financial stability. P1, the US school director, reported that 'the dean has his goals for me. Goals of making sure that we are financially stable' [P1, interview]. This result is consistent with Magzamen et al. (2017) and Tan et al. (2016) as Tan found that the learning environment and context is an important variable in contributing to the nurturing of creativity within the subject-domain.

Through observation of the academic consultation session in section 5.7 , a casual approach to doing tasks was taken, due to the accessibility of the relevant departments. This matched what Rayneri et al. (2006) found, that the gifted students tended toward learning styles that included a preference for responsibility (as students in Stage One responsible for their decision about acceleration), tactile and kinaesthetic learning, mobility (as students in Stage One have their choice to do their tasks in the library and/or visiting a faculty member), eating and/or drinking while learning (where the kitchen was centred in the US case school, see figure 5.1), and learning during the afternoon and/or evening.

The participants from the US case school discussed the location issue in terms of the relationship between the school and the relevant department within the university. For example, they mentioned the benefits of locating the school within the university in terms of its relationship with the Students Affairs Department and university staff recruitment opportunities. On the other hand, in the Saudi context, they discussed the location issue in terms of constituents, procedures,

and experiments. This variation may be attributed to the longevity and stability of the US school, as the US case school was established in the 1970s, whereas the school idea is still under negotiation in Saudi Arabia, as revealed by Ex1 (personal conversation with Ex1). However, a concern arose over school location as the Saudi context still lacks suitable locations for gifted programmes (e.g. see Al-Zoubi, 2011; Ashwal, 2013). Al-Ajez and Murtaja (2012) recommended that a suitable educational environment beginning with a good choice of place, proper facilities and equipment, and rich learning resources should constitute the infrastructure of a gifted programme. Al-Zoubi and Bani Abdel Rahman (2016) asserted the following facilities for achieving the purpose of gifted intervention: furniture, laboratories, stadiums, and teaching aids. Aljughaiman and Maajeeny (2010) pointed out that the facilities and equipment in the gifted centres in Saudi Arabia are not consistent with the quality standards of gifted programmes, that emphasise enhancing learning environments, facilities, and equipment to encourage creativity and innovation.

In contrast, the Saudi experts clearly indicated that the Saudi universities had suitable space for adopting schools such as these. However, in the case of potentially transferring this component, the results of Stage Two showed the possibility of having a school within a university campus in the form of a separate unit within a relevant department that advocates giftedness.

## 6.4.2 School layout and capacity

The findings concerning the US school layout showed similarities with those of Rayneri et al. (2006) who focused on gifted students' learning environment preferences. The gifted students preferred informal seating arrangements, which appeared in the Transition School's classroom layout and the Academy lounge in the US case school. The US case school had one classroom for the Transition School, which would also be sufficient in the planning stage of the Saudi proposed school, as suggested above to start with a small size (section 6.4 ). However, once the Saudi proposed school capacity is known, the accommodation might need to be expanded depending on the growing number of students. However, in the Saudi context, setting the policies, designing the school programmes, and the proposal procedure for the school were seen by the Saudi experts as more important than the school layout, as the experts expected that the universities would offer a suitable place to run the proposed school. While in the US case school P5 had mentioned the importance of having a lounge, this provision might be more related to the start-up process of

launching the schools, such as acquiring buildings, hiring staff, and selecting curricula (Loveless & Kelly, 2012).

In Stage One, the US case school had fourteen students in the Transition School and thirty-five students in the Academy, with thirty-five staff who worked full time or part time. In Stage Two, the findings revealed that the Saudi proposed school might achieve similar numbers, especially during the initial years. According to the statistics received from the MOE, the Saudi experts expected to start with a small number of students, with not more than twenty per class (see appendix 11). The finding showed the importance of piloting the school in Saudi Arabia to see how the practice went and looking at its output, before expanding the student numbers and transferring the practice to other universities. This was consistent with Kertesz and Downing's (2016) conclusion that piloting the local school would justify experimenting with the new approach to benefit the students and the school, rather than comfortably following an established traditional model. The Saudi experts mentioned the ability to expand the school capacity once the practice was successful (see section 5.11.2 ). Starting with a small number of students might save the school from the risk of the 'new school effect' that could cause low scores in students' achievement (Loveless & Kelly, 2012). However, in contrast, beginning with a small class size might have a positive effect in raising students' test scores (Buckingham, 2003; Claire, 2011).

### 6.4.3 Funding and resources

Funding emerged as an essential factor for the educational setting component. I categorised the funding under the structural characteristics of the school, giving the data that I collected in Stage One (see section 5.3.2.4 ). The recommendations by Clark and Zimmerman (2002) and SEM by Renzulli and Reis (1997; 2012) did not mention funding as essential in establishing or developing a special school for gifted students. This contrasts with Callahan et al. (2017), who identified suitable financing as a major factor, that plays a significant role in the context of the gifted programme and also has a significant impact on the quality of the programme. However, the funds in the US case school came from a structured resource, namely the superintendent (the state). Despite that, the participants in Stage One indicated financial constraints when participants 1, 2, and 5 mentioned having Summer Programme tuition fees in order to support the school financially. In addition, the US case school identified several resources that supported the school other than money, whether

sources of information such as relations with relevant national associations, and or having a director active in many facets of gifted education. However, in the Saudi context the experts assumed that the funds would come from the government through the MOE and/or the host university of the proposed school.

Given that Saudi Arabia has traditionally funded all educational provision, it is not surprising that the Saudis who were interviewed would point to the MOE as the source of funding. This finding is unlike that of Bin Yousef (2014), where she found that the financial allocation for gifted provision in Riyadh was one of the main infrastructure areas that needed further improvement, which was also consistent with the findings of Algarni (2012), and Alqefari (2010), and aligned with Bajaber's (2015) recommendations. This contradiction might be because of the reform in education since the announcement of Vision 2030 and the massive budget allocated to the education sector; or because the proposed school would be affiliated to the universities that have a separate budget. The proposed school expenditures would be separate from the MOE. However, in either case, the proposed school would have to have a flexible policy that would allow national companies and/or businessmen and/or the private sector to provide subsidies and other support. In addition, it is important to mention that the Saudi government, through Vision 2030, intends to privatise some sectors, one of them being the educational sector, through privatisation of the Preparatory Year Programme which has been suggested to host the Saudi proposed school. Ex3 reported on this issue: 'Typically, in the future, it would be possible to privatise education. Implementing companies are very likely to be private' [Ex3, interview].

### 6.4.4 Internal operations: decision making and periodic meetings

The findings showed disparities between the two stages in how decisions were made concerning the school's operation. The US case school was decentralised in making decisions and there was less bureaucracy in decision-making procedures among the personnel; the school staff played a part in stating the school's mission and policies. This involvement was a result of the 'No Child Left Behind' (NCLB) policy that was employed to improve many aspects of education such as reducing of bureaucratic involvement. In contrast, the Saudi participants asserted the centralisation of decision-making for the proposed school and indicated a formal, legal system of hierarchical

authority, and unsurprisingly most of the experts mentioned that the MOE would be the main regulator of the proposed school.

Other research has found that, because of this centralisation, bureaucracy is one of the main obstacles affecting gifted provision in Saudi Arabia (Algefari, 2010; Bin Yousef, 2014). Similar studies have pointed out the negative effects of bureaucracy on educational performance and achievement internationally (see Smith & Larimer, 2004; Marlow 2001). Some of the Saudi experts mentioned the significance of following global standards in gifted education, but their perceptions of the decision-making process are discordant with this. These global standards were made in developed countries such as the USA, England, and Australia, which have decentralised their schools (School-Based Management), making them more autonomous and having full authority with their local councils and their relevant associations. The schools in the developed countries have also been able to involve the relevant stakeholders to participate in decision-making (Moradi, Beidokhti & Fathi, 2016). Therefore, following global standards in gifted education in Saudi Arabia may not be possible unless there are changes to the monopoly and power patterns at the school level.

### 6.4.5 Supporting organisations and partnership

The findings of both stages revealed that having partnerships was seen as essential in its benefits to the school. These findings are consistent with those of Kaul et al. (2012) who claimed that partnerships with community, parents, and programmes are critical components of summer enrichment programmes for gifted students. In addition, Olszewski-Kubilius and Clarenbach (2014) asserted that partnering and collaborating with universities and community-based organisations could offer a rich selection of services and opportunities to students, resulting in a more comprehensive and ultimately successful programme (see also Haight, 2012). Nevertheless, neither Clark and Zimmerman (2002) nor Renzulli and Reis (1997) mentioned the importance of partnerships. Therefore, the findings of this study may contribute to knowledge in citing partnership as a major aspect of establishing a special intervention for gifted students in Saudi that echoes the arrangements in the US case school.

However, the findings showed that participants' perceptions of the partnership issue were seen according to their context. For example, the US case school discussed partnership in the form

of exchanging knowledge, research, contracting opportunities, and quality and localisation of the programme; so the perspectives were about identifying sustainability for the US case school. The findings in the Saudi context differed in that the experts negotiated the partnerships with relevant institutions about fundamentals such as launching, funding, training, and supplying the programme. The partnership in the US school was purposeful and targeted. The partnership in the US school could, however, be due to the US partnership activities being aligned with the patterns set by organisations at the NAGC summit that were negotiated with scholars, policy experts, and practitioners in gifted education. The patterns were created to extend and support the work of school leaders and teachers, such as partnerships with universities to offer coursework, summer programmes, and/or mentoring, or with businesses to offer internships or job shadowing opportunities (Olszewski-Kubilius & Clarenbach, 2014). So in the Saudi context, they may simulate these patterns in order to have targeted, purposed partnerships.

The partners who are university faculty members might contribute to pedagogical content knowledge, differentiating the content and pedagogy with an understanding of how particular topics and problems are organised, represented, and adapted to support the gifted students' achievements. Saudi Expert 7 highlighted the significance of an existing partnership with university departments such as Deanship of Scientific Research, Deanship of Skills Development, and Deanship of Student Affairs. This is consistent with the findings of Newman and Hubner (2012), who found that partnership with college faculty members to mentor gifted students on summer enrichment programmes had a positive effect on students' performance.

The Saudi experts mentioned repeatedly that the KSU was the appropriate body to host the proposed school. However, and given my experience in gifted education in Saudi Arabia, some other universities also have suitable facilities and have made major efforts towards gifted education, such as King Faisal University in the eastern region that hosts the National Research Centre for Giftedness and Creativity (NRCGC), Imam University in Riyadh city, Jeddah University in Jeddah city and King Khalid University in Abha city. However, the culture of acquisition to dominate innovation in education in Saudi Arabia appeared through the apparent competition among the interviewed university participants to host the proposed school. This competition among the higher education institutions would, however, maximise enrolment, staffing, and revenue (Farhan, 2017).

## 6.5    Component 2: leadership and personnel

The leadership and personnel component differed between the two contexts. In the US context the leadership style was fairly democratic, with the leader concerned with the employees' needs. Some features of a paternalistic leadership style were also seen in the focus on the power of teamwork (Gelfand, Erez & Aycan, 2007). In contrast, proposed leadership in the Saudi context was not identified, due to still being in the generating phase of the proposed school. However, neither Clark and Zimmerman (2002) nor Renzulli and Reis (1997) specified a certain style of leadership in initiating change in gifted education intervention. Nevertheless, perhaps in the Saudi context an appropriate form of transformational leadership would be needed to initiate change in the educational system, to adopt the new concept of the universities providing intervention for accelerating gifted students (Leithwood & Sun, 2012).

The US school followed the criteria of NAGC regarding professional development for the personnel, as there were comments by the participants in Stage One that reflected the NAGC's statements such as: 'Educators systematically participate in ongoing, research-supported professional development that addresses the foundations of gifted education,' (NAGC, 2000). The criteria in both stages were consistent with the criteria of Klimis and VanTassel-Baska (2014) for hiring teachers for gifted educational intervention. Furthermore, the personnel resources in the US context were from the university staff, advanced public school staff, and the academic field, whereas, in the Saudi context, the personnel resource was determined to be mainly by the MOE not the Ministry of Civil Services who was responsible for hiring individuals. This determination of personnel hiring by the MOE might be attributed to the centralisation of power and decisions by the MOE.

The criteria for staff recruitment were worked out in the particular US context, while in the Saudi context, imported criteria for staff selection and recruitment were suggested and that was not needed. Hence, gifted education in Saudi Arabia has adopted the NAGC criteria (see section 3.4.2 and 3.4.3 ). Therefore, following the Saudi criteria in staff selection and recruitment that already existed in the principal bodies serving gifted students would be sufficient for the initial stages of the establishment of the proposed school.

The Saudi respondents suggested adding some positions to those of the US personnel structure: public relations specialist, university-school coordinator, and security guard. However,

the findings showed that the Saudi context had a shortage of educators for the gifted and that this issue is still a major concern whether inside Saudi Arabia or outside Saudi Arabia (see Reid & Horvathova, 2016). Bin Yousef (2014; 2015) cautioned about the lack of influence of the staff on the quality of gifted provision in Saudi Arabia; this was consistent with the findings of Almakhalid (2012).

## 6.6 Component 3: identification process

There were intersections between the two contexts of this study, in that both considered the following strategies to diagnose giftedness and readiness to be included in an acceleration programme: standardised national ability tests, academic aptitude, interviews, recommendation letter from teachers, and transcripts of academic performance for the previous two years. These criteria were consistent with the literature on gifted identification (e.g. Renzulli & Reis 1985; Renzulli, 2005; Callahan, 1995; Callahan et al., 2017). In addition, all data resources concur in the desirable characteristics of potential students for the special school as being capable, motivated, mature, intellectually curious, and highly engaged with learning (see e.g. Leikin et al., 2017).

The data emphasised maturity as an important characteristic of the accelerated students and their sense of responsibility in going through the acceleration procedure. Thus, the commitment to the task component in the three-rings concept of giftedness (Renzulli, 1978) appeared as a significant criterion in Stage One in the USA and as a required characteristic by the Saudi experts. It is worth saying that the proposed school for Saudi Arabia would benefit from adopting Hollingworth's (1972) definition of giftedness, as maturity was seen as important in Stage One.

In the US context, the participants emphasised the need to conduct interviews with potential students and their parents in order to be assured of their willingness to enrol in an intensive intervention. P6 provided an example of unwillingness:

> One student came in with … actually she had some disabilities that we were fine with, but she actually took a position where she felt like she could not accommodate to paper deadlines for example. That was like a moral accommodation that she could not make; okay, you just can't be here [P6, interview].

In the Saudi context, Expert 3 mentioned applying Multiple Intelligence theory as a means of determining the potential students' ability, which is in alignment with the results of Koura and

Al-hebaishi (2014). However, MI theory requires non-centralised teaching methods that include discussion, questioning, and doing research that are not yet guaranteed as pedagogies for the Saudi proposed school.

The findings revealed that the identification process in Saudi Arabia was conducted through coordination between three principal authorities: the Ministry of Education (MOE), the National Centre for Measurement and Assessment (Qiyas), and Mawhiba. One of the Saudi experts, Expert Two, mentioned that this integration made the identification process more powerful. However, the integration between these authorities may also lead to the deficiencies in identification that have been indicated in the literature (Aljughaiman, 2009; Aljughiman & Maajeeny, 2010; Alzoubi & Bani Abdel Rahman, 2016; Bin Yousef, 2014; Qarni, 2010), in terms of the length of the process, delay in making decisions, and complicated procedures. In addition, the decision on acceleration enrolment is only released once a year by the Minister of Education for a certain cohort of students, which makes the process heavily centralised and complicated. Colangelo et al. (2010) released research-based recommendations which specify that the decision on acceleration should be made by a team not an individual, as a common impediment to acceleration occurs when acceleration decisions are made by a gatekeeper who may have negative personal views about acceleration (Southern & Jones, 2004; Colangelo et al., 2010).

This identification process is unlike the decentralisation in decision-making in the US case, where the decision to enter an intensive intervention is made between the students and the school. This decentralisation may expedite the process and ease enrolling in the acceleration procedure. Centralising the acceleration decision to one person might affect many related aspects. For example, the families and students could be discouraged by having to go through a long period of time that may or may not lead to final acceptance. It could also affect the schools, as waiting for a list of accelerated students from an external body could influence the school's routine, curriculum preparation, and organisation of suitable classes to accommodate an unknown number of accelerated students, in contrast to when the school itself decides whom to accelerate.

Deficiencies in identification might affect the Saudi proposed school, in the following ways: the school may be linked with the student list that comes from the MOE which could miss potential students; therefore, underachievement issues might appear, as described in the literature (see section 3.3 ); any problem or delay with the identification system would affect the running of

the proposed school; and the school might be linked to the policies of other authorities that do not advocate for giftedness. It could also affect the proposed school size and its personnel structure. Therefore, it would be better to recommend that the school apply its own policies and procedures for identification, like the US case.

### 6.6.1 Outreach to potential students

The actual and proposed strategies of reaching out to potential students were quite similar in some ways in both stages. In the US case school, the outreach strategies included visiting certain high schools, inviting stakeholders to the school, improving their online platform, expanding the programme's capacity, and employing Summer and Saturday Programmes for outreach purposes. However, the Saudi strategies were more limited, as using an online platform to raise awareness of the school's services was not mentioned. This concurred with the findings of Bin Yousef (2014), who found that reaching the gifted students was one of the main challenges that might affect the efficiency of gifted provision in Saudi Arabia.

Participants in both the stages mentioned using Summer and Saturday Programmes as a gateway to reaching potential students. This is consistent with the findings of Chan et al. (2010), who found that university-based programmes were not only providing a unique learning opportunity outside the regular classroom for gifted students, but also providing a successful outreach strategy for prospective exceptional students. What is more, Chan et al. found that parents' endorsement of their children's participation in the university-based programme was notably important for the students' performance. Parental support was a concern for P5, the Academy Director in the US case school:

> So how do we figure out how to reach out to those populations and also eliminate the barriers, because one of the issues there is that the student might be academically ready, but they don't have the support, they don't have the resources, they don't have the family that's pushing them towards this, they don't have all of those things, so how do we break down those barriers? [P5, interview].

Lack of parent support also emerged in Stage Two, as mentioned by Ex8 and Ex10 where the parents discourage their gifted students to be involved in gifted interventions. However, this

discouragement could be attributed to ideological reasons; this issue was not scientifically explained in Saudi Arabia.

Sharma (2016), who had developed a detailed methodology to identify and mentor potentially gifted children, also concluded that universities and other higher education institutes should be encouraged to initiate outreach programmes for gifted children, in which university departments could take responsibility for mentoring them. This conclusion by Sharma was consistent with the claims by Saudi Expert 3:

> We should have awareness activities for the needs of this category. Each university has a special department or deanship that supports gifted students, so their summer programmes can help in outreach [Ex3, interview].

## 6.7 Component 4: focus of the school programmes

The findings indicate that the US case school has three main programmes that aim to prepare and transfer young students smoothly to college (TS, EEP, and the Academy, section 5.6 ). The objectives of these programmes vary in preparation, advice, and support. The purpose of establishing these programmes was alignment with SMPY conclusions: that children of high ability need to be prepared to become educated adults, not simply prepared for a future career (Brody et al., 2015). These programmes are one of the reasons why students succeed in the university, as reported by P2: 'So the transition school really is the cornerstone for the student being successful at the university, because they get all of those skills in place before we let them go on' [P2, interview]. Such programmes provide an appropriate sphere with suitable curricula that meet the gifted students' needs, gather them with their intellectual peers, and offer the advice that they need. Therefore, this finding was in agreement with those of Hertzog & Chung (2015), Sayler (2015), Schroth (2008) and Unlu & Jane (2016). It was also in agreement with Yun Dai & Steenbergen-Hu (2015) who indicated the significance of the need to possess autodidactic capabilities and self-direction, to get the benefit from early college entrance programmes.

The US case school gave individualised attention to students, especially on the EEP and Academy programmes. This matches the principle of Clark and Zimmerman (2002) that gifted education must be individual, not in groups. It also supports the SMPY assumption of personalising the educational programme to suit the individual gifted student's needs. In contrast, the Saudi

respondents focused on a cohort-oriented programme rather than individualisation, which is in alignment with the SEM model (Renzulli & Reis, 1997). The reason behind this preference is the limited use of personalised learning, as no specific individual plans for gifted students had been drawn up since the gifted programme establishment in Saudi Arabia.

The Saudi experts proposed to insert the Transition School and Early Entrance Programme (EEP) concepts within the Preparatory Year Programmes that already exist in most Saudi universities, as there are similarities in content. In contrast, the TS and EEP in the US context are esigned for students in grades seven, eight, and nine. Students in these grades are not eligible to enrol in university in the Saudi context. The policy in Saudi Arabia obliges students to gain a secondary school certificate to enrol in university. Therefore, once Saudi Arabia approves the adoption of the EEP concept within the universities, it has to either change the university enrolment policy, adjust the EEP concept to be appropriate for secondary-certified students regardless of age, or adopt a new, dual-enrolment programme. Some of the Saudi private schools have adopted the IB (International Baccalaureate) and AP (Advanced Placement), but unfortunately these are not employed in the correct manner for facilitating college entrance. However, once the Saudi students finish the IB or IP and decide to study in a Saudi university, they must enrol in the Preparatory Year Programme which may take one year before getting to the core discipline in the university. Thus it could be argued that the Saudi system wastes two years of the accelerated students' time rather than skipping them quickly to an advanced level of learning. However, transferring this core component would need a deep understanding of the context to obtain the right formula, otherwise the EEP concept would lose its function. A further explanation of the admissions policy is given in the Identification Process section.

## 6.8   Component 5: counselling services

The findings in Stage One provide a model of counselling. The US school delivers structured counselling activities from enrolment in the special school until graduation. The findings also elaborated on the techniques that are used to conduct the counselling sessions. The school follows the American School Counselor Association's (ASCA) position statement on the school counsellor's involvement in the following areas of support: participating in identification, providing group and individual counselling, recommending resources, engaging in professional

development regarding gifted services, and promoting an understanding of gifted students' needs including perfectionism, depression, dropping out, difficulty in peer relationships, career development, and goal setting (ASCA, 2017).

Both stages revealed the importance of the counselling component in setting up a special school for accelerated gifted students attending a university-based transformational programme, and that was in agreement with the recommendations by Gronosta et al. (2016) (see section 3.6.1 ). However, the counselling component is not examined in depth in Clark and Zimmerman's (2002) recommendations and principles, nor in Renzulli and Reis (1997). In addition, both contexts in this thesis emphasised the importance of individual-oriented counselling, and of collaboration with relevant advisory departments and/or Departments of Psychology as sources of support for counselling services.

Both contexts addressed the main potential cases of drop-out from the programme that had already faced the US school and might confront the Saudi proposed school. These cases were a result of a lack of challenge or a rigorous curriculum, boredom, and difficulty fitting in with the new environment, all of which were compatible with Rimm (2003). Therefore, the guidelines to inform the development of the gifted intervention in Saudi Arabia would have to consider these risks and prepare a plan to confront them.

In agreement with Wood's (2010) results, Saudi Expert 2 underscored the importance of preparation courses and training for counsellors, and the necessity for these to address issues unique to the learning and development of gifted students.

The findings revealed that the Saudi context had an existing structure for counselling that was already applied within the MOE's schools for accelerated students, which is not included with the instructional manual in a complete form, and that these structures could be used as a basis for a counselling programme for the Saudi proposed school that could merge with the US school counselling structure. However, the Saudi context would still demand an organised counselling programme that relies on a set of standards (Aljughaiman & Grigorenko, 2013; Al-Zoubi & Bani Abdel Rahman, 2016).

## 6.9 Component 6: curriculum

There are convergences in the curriculum among what have been presented in the literatures, the application in the form of the US case school, and the aspirations for the Saudi proposed school curriculum. For instance, the US school deliver the sequenced content from introductory to advanced level, such as studying Biology, selecting Biology courses from advanced level in the summer, and working in the field with relevant organisation for application purposes. Having sequenced curriculum for gifted students was mentioned by Clark and Zimmerman's recommendations (2002), SMPY conclusions (Brody, 2015), and others (Renzulli and Reis, 1997; Klimis & VanTassel-Baska, 2014; Stanley, 1991). Correspondingly, in the Saudi context, the experts advised that the school have an enriched and accelerated curriculum that prepared the students for college life that derived from the Preparatory Year Programmes. The PYP curriculum includes a sequenced level of curriculum; however, it is not designed for gifted students.

In addition, the analysis of the course syllabuses of the US case school revealed a set of strategies and thinking skills that are consistent with curriculum goals by Klimis and VanTassel-Baska (2014). The goals concentrate on developing the following aspects: critical and creative thinking skills; attitudes and independent learning skills; oral, written, visual, and technological communication skills; and the social skills and dynamics of leadership. Besides, some of the Saudi universities have a curriculum that designed in alignment with the above-mentioned goals such as the gifted programmes curriculum in KSU.

The findings also revealed the possibility of translating and/or importing the US case school curriculum to apply it to the Saudi context. However, the US case school curriculum was designed for certain school grades that are very different from the grades in Saudi Arabia. For example, in the US context the Transition School's curriculum is directed to the students in seventh, eighth, and ninth grades. In the Saudi context, there are no clear regulations to enrol the students in seventh, eighth, and ninth grades to the university unless they pass secondary school. Therefore, the potential grade for the Saudi context would be accelerated students from secondary school. Therefore, translating and importing the curriculum would be impossible at this phase. However, derived and adopted curriculum from the Preparatory Year Programmes to suit the potential students for the Saudi proposed school would be more suitable. In addition, integration with the courses by KSU that are directed to improve gifted personal and thinking skills might

improve the curriculum for the proposed school. Moreover, in the US context, the teachers are responsible to design and develop the curriculum, and that would be inactive in the Saudi context where the MOE is the principal body to assign the curriculum and hand out the books. However, placing the proposed school within the university could allow some freedom in developing the curriculum as the curriculum in the Saudi universities is under the responsibility of the faculty and has to follow the academic quality criteria of each university.

Perhaps home schooling could be an option for developing a curriculum with some freedom. Home schooling has become a choice for gifted learners in the UK and USA for the last two decades; gifted children and their parents are offered wide selections of schooling and learning opportunities besides the traditional public and private schooling. It is argued that the reasons families have turned to home schooling stem from poor experiences, such as the teachers' negative attitudes to their children, and the irrelevance of the curriculum toward their culture and values (Mazama, 2016), and parents wanting to protect their children from physical violence, drugs, and psychological abuse (see Lubienski, Puckett, & Brewer, 2013). Furthermore, traditional public and/or private schooling may not meet the needs of the gifted children as the school might lack an understanding of the characteristics of gifted learners, with an inability to provide an acceleration strategy, and an overall negative classroom experience (Jolly & Matthews, 2018),

The empirical literature shows positive results of home schooling on the learners' academic achievements, social and emotional progress, and psychological well-being (see Jolly & Matthews, 2018). Therefore, it might be a positive option for Saudi families to turn to home schooling in the form of virtual learning (the students receive the educational material and instruction via the web) as in 2016, Saudi internet users reached seventy-three % of the Saudi population (World Bank, 2018). In addition, Saudi students have a positive attitude towards learning outside the classroom through social media, online courses, school websites, and private tutoring (see Brahimi, & Sarirete, 2015).

However, Saudi Arabia lacks advocate organisations that provide sufficient information about the application of home schooling. In addition, the Saudi parents have to be professionally licencred and experienced in teaching to offer basic skills instruction in math and science, but the MOE has a lack of specialised programme to diagnose and train parents for this task. Besides, it

might be difficult for the Saudi government to control the ideologies received by the childen if they are schooled at home, as it could be an extremist ideology that might affect Saudi society.

### 6.9.1 Teaching strategies

Certain teaching strategies and skills were found in both stages of this research which are consistent with the literature (see e.g. Kaplan, 2005; Tomlinson, 2001; Renzulli & Reis, 1985; Callahan et al., 2015). For example, the findings of Stage One showed that differentiated instruction (Tomlinson, 2001) was used in some courses, such as the English course in the Transition School, and in the instruction to focus on methodologies when reading an article. It was found that emphasis was placed on using the following strategies and skills for gifted students: a student-directed approach; emphasis on creative and critical thinking skills; discussion; modelling; gradually increasing the depth and complexity of content; writing and reading articles; having a U-shaped class layout; and providing a rich environment with books, journals, projector, and computers. These strategies were used to respond to the accelerated students' ability to understand and learn content more rapidly. Type three enrichment, from the Renzulli (1985) ETM model, which consists of investigations and/or creation of products that promote in-depth understanding directed at solving contemporary problems in areas of student interest and ability, was used in assignments and tasks, in order to prepare students to compete academically at the college. Williams (2013) had comparable findings that using ETM in teaching career development promoted wisdom in young people. In general, a reflection of the given principles and standards by national agencies such as NAGC guided the teaching strategies in the school.

Convergences were found within the Saudi and US contexts in the strategies needed for teaching potential students in the Saudi proposed school. These strategies were: academic writing, discussion, creative and critical thinking skills, problem-solving, and investigation and research skills (see sections 5.8.2 and 5.11.8 ) These strategies and skills were mentioned in relation to enabling the gifted students to maximise their potential. This result is consistent with other research (e.g. Al- Hadabi, 2010; Bangel, Enersen, Capobianco, & Moon, 2006; Al-Zoubi & Bani Abdel Rahman, 2016). However, Al-Zoubi and Bani Abdel Rahman (2016) mentioned that students were only moderately satisfied with the teaching methods used at the Saudi gifted centre in Najran city. This moderate satisfaction might be attributed to the poor performance of the teachers, as there are

deficiencies in providing national standards for teaching the high ability students. Therefore, further improvements are needed in establishing general principles and standards for teaching across Saudi Arabia, plus in training teachers in methods that are compatible with the characteristics and needs of gifted students.

The Saudi experts repeatedly mentioned the significance of including internship within the programme strategies, in order to allow potential students to learn how to play leadership roles in research or business, with the help of experts and professionals at local universities/corporations (see sections 5.8.2 and 5.11.8 ). This is consistent with the SMPY assumption that high ability students need to have role models who can provide a vision to help gifted students establish the academic goals appropriate for their future careers (Brody, 2015, pp.148–149). It is also in alignment with Clark and Zimmerman's (2002) principle that students would be better working partly with the mentor while attending the school. Mentors should master the domains that interest the students. Having an internship programme within gifted provision provides an opportunity for students to develop and practise soft skills such as teamwork, professional communication, and taking responsibility for accomplishing desired goals.

## 6.9.2 Assessment

There are differences in views of assessment between the two contexts. The US case school applied on-going tests, with pre- and post-assessment, to evaluate the progress of the students after they enrolled in the special school. The purpose of the assessment in the US case was to evaluate the students' progress, maturity, aptitude, and readiness to enrol in the university. A set of criteria was developed by the US school staff in order to identify the 'ready for college' students. In the Saudi context, in addition to the admission criteria that will be discussed in the following section, the experts recommended having a pre-assessment before the students enrolled in the proposed school (see section 5.11.8 ). In fact, the Saudi accelerated students would be subjected to too many tests, assessments, and examinations by the MOE before being selected for the acceleration programme. In addition to that, Saudi Arabia would apply the General Aptitude Test (GAT) by the National Centre for Assessment in Higher Education (Qiyas), which is the test for college acceptance of high school graduates; the score is an indicator of the students' readiness for college. Therefore,

having further assessment of the potential students might slow the process of enrolment in the proposed school.

The possible explanation for the differences in the views of assessment is the flexibility of the policy in the US case that allows the students to enrol in the special school and only then examine their readiness for university. However, in the Saudi context, the policy would not allow the accelerated students to enrol in the university without several diagnoses, tests, and assessments being completed. Therefore, the decision-makers have to avoid duplicative testing with the knowledge that one test will not be sufficient to meet the needs of students and schools.

The social pressure in the Saudi context perhaps plays a role here, as the fear of failure, whether from the university staff who will adopt the concept of the proposed school, from the families who push their children towards the new intervention, or from the students themselves, might be responsible for the imposition of this amount of assessment. However, in 2016, the Association of Higher Education Executive Officers developed a roadmap of college readiness that set a number of recommendations for smooth transition into college that might help. They recommended avoiding duplication of tests. Students need to know if they are on track to be ready for credit-bearing college courses well before they graduate from high school so they can take relevant courses, and colleges need to know how to place their incoming students in appropriate courses (Mann & Martin, 2016).

A possible suggestion is that the pre-assessment process for the Saudi proposed school could be an integrated operation between the MOE and the host university on the one side, and Qiyas on the other side, in order to develop a single assessment of college readiness of gifted students. However, an in-house service orientation doing the pre-assessment may better suit the Saudi proposed school. In the US example the staff were responsible for developing their criteria to assess the college readiness of the students after enrolling them in the school and providing them with intensive intervention. This orientation would facilitate the process of transition to college, whereas referring the assessment to many authorities would complicate the process. Moreover, ongoing assessment of students' progress and ability could be done by the proposed school staff themselves.

## 6.10   Challenges and possible influencing factors

Challenges varied between the two contexts. In the US context the challenges were publicising the school's services, getting in touch with alumni, application of the state law, and social and emotional adjustment (see section 5.9 ). However, in the Saudi context, the challenges were bureaucracy in adopting new policy, finding qualified staff, financial allocation, and awareness of acceleration (see section 5.11.9 ). The lack of trained staff, applying policies and regulations for gifted education, and awareness about giftedness are the main challenges in gifted education in different contexts and settings (e.g. see Kettler, Oveross & Salman, 2017; Müller-Oppliger, 2014). Bin Yousef (2014, 2015) mentioned that the deficiencies in gifted provision in Saudi Arabia were the financial allocation, lack of awareness, and lack of professional staff. Given my experience in gifted education in Saudi Arabia, several aspects may contribute to the challenges that face gifted provision in general, such as the newness of the gifted education field and its application in a new context, the multidimensional definition of giftedness that may confuse the practitioners in applying policies, and the variety of perceptions and understandings of giftedness, as different cultures have their own ideas about giftedness. Therefore, policy, perceptions, and practices of giftedness are influenced by the definition of giftedness that is endorsed by the state, inspired by local socio-political reality, and culturally determined (Heuser, Wang & Shahid, 2017).

It is worth saying that the process of a 'new concept' being moved from one context to another would be influenced by several factors. Culture is one of the possible factors shaping the conception of the proposed school in Saudi Arabia. Culture can be defined as the norms, values, and traditions that influence how the society and individuals perceive (Chamberlain, 2005). Therefore, aspects of the culture will appear in the curriculum and its practices, whether the curriculum is local (from the host university) or imported (from the US school) (see Winstanley, 2012). Therefore, accepting a foreign educational concept should be only embraced as long as it enriches the Saudi system and not if it negates existing Saudi values and principles (Benahnia, 2015). Therefore, it is essential to take the local context into account. Nevertheless, it is important to provide the leadership and personnel in the Saudi proposed school with an understanding of the main components of the US school programme that might be suitably delivered by the US experts. Fidelity to the original model is often assumed to be the target (Ebaeguin & Stephens, 2014).

In addition, language will be a major factor that will influence the proposed school, specifically the language of the curriculum and its instruction. The language of the proposed school, whether spoken or written, will be influenced by the potential host university itself and the US export university. For instance, in the case of importing the curriculum from the US university, as suggested by two of the Saudi experts (Ex3 and Ex4 in section 5.11.8 ), the curriculum could either be translated into Arabic or delivered in its present language of English. Either way, the curriculum would have to be modified in order to align it with the Arabic and Islamic culture of the Saudi educational system. In the case of delivering the curriculum in a language other than Arabic, it is important to recognise the influence of the language on the culture, where the students could be under the influence of the language of the potential curriculum that might be extremely different from their culture, and this may affect the construction of their Arabic and Islamic identity (see Benahnia, 2015).

Lastly, the influence of, and competition between, some of the higher institutions in Saudi Arabia might affect the quality of the Saudi proposed school. Fusilier and Munro (2014) addressed the competition between higher education institutions as the main threat to effecting change in the universities. In regard to that, the Saudi experts mentioned repeatedly that King Saud University was the most suitable place for gifted intervention applications, due to its financial ability, academic reputation, and leading status in Saudi Arabia. However, numerous institutions could adopt the concept of having a special programme for accelerated students due to their advocacy of giftedness and/or their efforts in gifted education research. For example, King Faisal University has a specific centre for research in giftedness and creativity, King Abdullah University for Science and Technology has long experience in nurturing giftedness among their students, and Imam Muhammed bin Saudi University also has a separate deanship for giftedness. Therefore, all the universities that could potentially adopt the new intervention for accelerating students in Saudi Arabia should be considered, to prevent the domination of the new intervention in one institution, which may or may not implement this new practice successfully (see Alabdulmenem, 2016). Therefore, national governing bodies have to select, filter, and modify the national and international discourses in educational transfer, in light of the local cultural, historical, economic, and political context (Perry & Tor, 2008).

## 6.11  Summary

This chapter discussed the findings of Stage One and Stage Two. The study has made considerable contributions to the body of knowledge about gifted education: the main components derived from this study were educational setting (physical and structural characteristics), leadership and personnel, identification process, focus of school programmes, counselling services, and curriculum. A discussion of the future challenges and predicted influencing factors that might face the Saudi proposed school was provided (the proposed school is discussed in the final chapter in the recommendation section).

# 7. Chapter Seven: Conclusion

## 7.1 Introduction

The main purpose of this study was to contribute to acceleration programme practices for gifted students in Saudi Arabia, by exploring the components of one successful American school in acceleration practices and the extent to which these components might transfer to the Saudi context. This qualitative study consisted of two stages: the first of which was a case study of the US school selected, and the second stage was conducted in Saudi Arabia. The study utilised three approaches for data collection: analysis of documents, semi-structured interviews with seven of the US school staff, and observation. The semi-structured interviews were conducted with ten Saudi experts in the relevant field of gifted education. There were two main research questions within this study:

1. What are the key educational components of a highly acclaimed American school specialising in accelerated programmes for gifted students?

2. From the perspectives of educational experts in Saudi Arabia, to what extent could these components be transferred and applied within the Saudi educational system?

Throughout this chapter, the key findings, contributions, recommendations, and implications of this study will be presented; it also acknowledges the limitations and suggests possible areas for future research. The conclusion of this study was reached through careful consideration of the data analysis and discussion of the findings.

## 7.2 Key findings of this study

The six essential components for establishing a new intervention for gifted students in Saudi Arabia and/or other countries who are able to afford the expenses of gifted provision practice are as follows:

1. An educational setting that includes specific physical and structural features that can support and meet the needs of gifted students, and guarantee sustainability.

2. Assigning a leader who advocates the programme and can manage qualified trained personnel in a supportive work atmosphere that encourages innovation in education.

3. Systematic fair identification procedures that are designed to determine the state values, norms, and future orientations.

4. A continuum series of educational programmes that are designed to meet individuals' needs and abilities.

5. Counselling services that support accelerated students with psychological and/or academic issues on a regular basis and provide future career advice.

6. A comprehensive and sequenced curriculum that is delivered in differentiated instructions and allows students' progress to be assessed.

In addition, the findings indicated that in order to establish and employ new interventions for gifted students, funding will have to be sought from the state (government), with additional existence of fixable financial structures that allow for informal supportive financial structures and subsidies, in order to address the physical aspects of the school, its interior, the personnel, and the resources. If the funding was not forthcoming, the proposed school could struggle with providing the sufficient curriculum, hiring the qualified staff and partners, and providing the appropriate facilities and equipment. Given the fact that Saudi Arabia is currently experiencing a period of austerity, it would be wise for the proposed school to generate some of its own funding by engaging in entrepreneurship and innovation. Furthermore, gifted intervention would also benefit from structured decision-making procedures, therefore allowing members to be involved in the decision-making process. What is more, employing new interventions for gifted students needs to be done in collaboration with both national and international organisations that support the programmes in the form of local and international partnership, with considerations of the ideology and values of the borrower context; referring to who borrows policy, norms, and ideology (Perry & Tor, 2008). In addition, the research highlighted the importance of a structured back-up plan to reach out to potential students. That is to say, when planning possible challenges, gifted intervention staff have to be aware of and take into account obstacle, risks, and conflicts that could undo their efforts. Finally, the findings determined the components that possibly fit with the Saudi context in the eyes of the experts. The following section explains in more detail each component and its ability to be transferable.

**Educational setting:** some of the aspects of this component are transferable to Saudi Arabia. Indeed, the Saudi experts agreed to have a university-based programme for accelerated students, starting with a similar number of students; however, deciding on the layout was not regarded as important at the initial stage. It was suggested that funds come from the state and, that the school would have to follow MOE regulations, in contrast to the school in the USA, which was semi-independent in its decision-making. Partnership with the leading national relevant organisation was seen as significant.

**Leadership and personnel:** this component could be applied in the same way as the US school has done. That is to say, it is essential that leaders advocate gifted education and that personnel comes from both the MOE and universities whose teachers have been selected by specific criteria, such as criteria by NAGC or Klimis & VanTassel-Baska (2014).

**Identification process:** the subject of identification would not be able to transfer to the Saudi context unless the principal Saudi bodies in gifted regulations change their policy and apply the decentralisation of decision-making when it comes to acceleration programmes. However, both countries showed similar identification procedures when accepting students in intensive intervention.

**Focus of school programmes:** this component is conditional and could be transferred to the Saudi context once it modifies its policy, to accept young students into university regardless of whether they have gained a secondary school certificate. Otherwise, the concept of a preparatory year, which already exists in Saudi universities, can continue to be applied for accelerated students who graduate from secondary school, in collaboration with KSU in adopting the curriculum.

**Counselling services:** this component is transferable, and the current situation in Saudi Arabia shows that there is a persistent need to provide counselling services for those in a range of different gifted programmes settings. Furthermore, the Saudi system can benefit from the US experience in gifted counselling, especially their four-stage counselling plan for accelerated students, mentioned in the counselling section in chapter five.

**Curriculum:** this is also another conditional component that depends on the preferences of the decision maker in Saudi Arabia, whether to translate the US school curriculum and adapt it to fit with Arabic culture, or to develop the Preparatory Year Programme curriculum to align with the purpose of the proposed school. Moreover, there was agreement among the Saudi experts to use

similar teaching strategies to those used in the USA, to ensure that schools meet the educational needs of accelerated students. In addition, it is crucial that assessment used in the Saudi context indicates the students' readiness to enter college, rather than simply assessing the students' progress. Therefore, it has been suggested by the experts that the Qiyas centre work in collaboration with the MOE in order to employ effective assessment procedures.

## 7.3    Original contribution to knowledge

This study contributed to the knowledge on the subject of gifted education by identifying the basic components required to establish a new acceleration practice for gifted students. Having done so, this will guide Saudi Arabia, and other Arab countries where there is limited gifted provision (e.g. Bahrain, Kuwait, Oman, Qatar, UAE, and Yemen) to make it available. This practice might be applicable for countries where there is a financial capacity for gifted provision activities.

This study also attempted to provide essential literature on gifted education and acceleration, and considered the history of this field to guide the interested researcher through conflicting theories, and therefore this thesis can be considered one of the first studies to investigate acceleration practices for gifted students in Saudi Arabia.

In terms of the methodology, this study was original in the way in which it was designed, as the researcher visited an actual acceleration practice in the USA, to examine the feasibility of transferring the educational components to a completely different context in order to develop a new system in Saudi Arabia. This approach ensured a clear understanding of the situation, as establishing a school for accelerated gifted students has not been considered in Saudi Arabia before. In addition, this study has contributed to the elucidation of the educational transfer process, an area which has not been investigated adequately to date (Gessler, 2017).

Additionally, the findings obtained from this study suggest the addition of some new aspects to the theoretical framework, which have been derived from a synthesis of recommendations by Renzulli and Reis (1997; 2012) and Clark and Zimmerman (2002) (table 4.7). Moreover, it is important to add that the examination of some of the frameworks used in this study was done for the first time in the Saudi context. The principles and components related to this subject and examined in this study can guide the interested researcher who aims to find out more about similar phenomena. In addition, this study interviewed the vast majority of experts and

decision makers in gifted education in Saudi Arabia, with their opinions contributing to the findings of Stage Two of this research. Figure 7.1 illustrates the model that is suggested to guide those operating the new university-based programme for accelerated gifted students. The model consists of the principles and components that are used in current practice and are from the opinions of the Saudi experts.
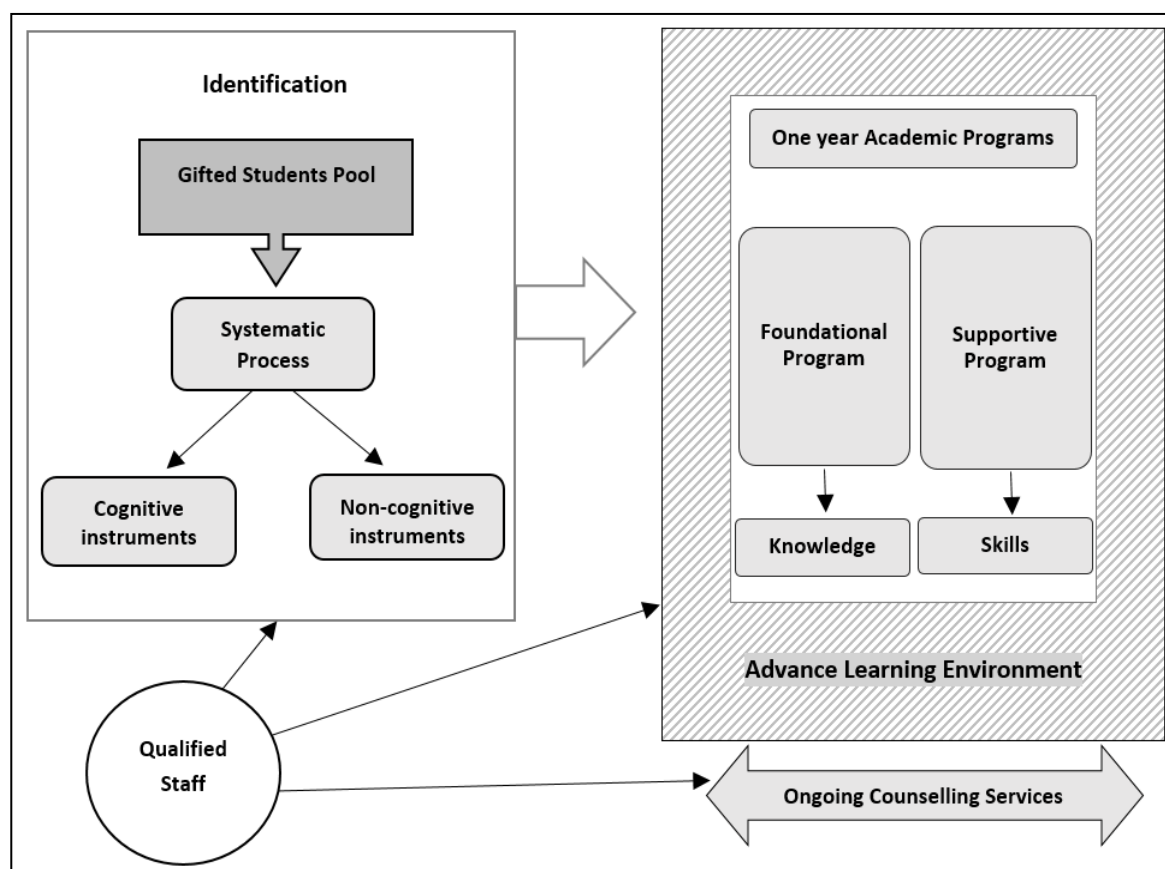
Figure 7.1 Proposed university-based programme for accelerated gifted students in Saudi Arabia

The model consists of two sections; on the left is the identification procedure. This involves the gifted students pool going through a systematic process; cognitive and non-cognitive instruments; passing the national instruments that measures the general abilities, having grade A or equivalent in the school courses, attending one summer enrichment programme at least, passing the interview, having recommendations from their teachers, and having parents' permission.

The box on the right depicts the advanced learning environment, specifically, a one-year academic programme containing two sub-programmes that students enrol on at university. The foundational programme involves students gaining knowledge by attending academic courses in subjects such as mathematics, science, and languages. The supportive programme runs alongside this and provides students with the opportunity to improve their academic skills such as writing,

argumentation, and communication skills. Students gain credits by successfully completing these courses. The model suggests that ongoing counselling services, which help students with academic, social and emotional issues and provide future career preparation, are also provided throughout the duration of the programme. A qualified member of staff tracks, operates, and applies the identification process, counselling, and the academic programme. Lastly, the programme works more effectively as a unit within a university context and following its administrative instructions.

## 7.4   Recommendations for policy

Based on the literature review in this study, the discussion, and the key findings of the study, numerous recommendations and implications are provided in order to enhance the educational setting in Saudi Arabia and to facilitate the establishment of a programme that can support gifted students who accelerate their learning and enrol in Saudi universities earlier than usual:

1.  The findings may assist the Ministry of Education to pay more attention to raising awareness on the subject of acceleration programmes – specifically acceleration programme options and the long-term benefits to the state, the community, and gifted students – for those it relates to, such as teachers and the administrative team in regular schools, and those on gifted programmes, parents and gifted students themselves. Moreover, it is essential to provide administrative staff and teachers with sufficient materials on how to apply acceleration within the schools and how to deal with obstacles that might occur during the application of acceleration (e.g. student withdrawal, rejection from parents, and scarcity of resources). In addition, it would need to engage effective media, including social media, to raise awareness of acceleration in schools.

2.  This study supports the decentralisation of decision making and advocates that the Ministry of Education rethink how they can reduce the effect of bureaucracy on acceleration applications, widen the circle of decision makers involved in acceleration practices to involve more members, and include schools in the decision making process, rather than simply relying on a list of students who have been approved to be accelerated by the MOE.

3.  A collaboration between the Ministry of Education and Qiyas and universities might be effective when modifying new policies for those 120 students who have already been accelerated in their regular education; it would mean that they accept those students who have

already passed the admission criteria for acceleration and were in ninth, tenth, and twelfth grades, to involve early to the college, and facilitate the students' transformation. Furthermore, the findings of this study might assist Saudi universities which are considering accepting those students and enrolling them on the Preparatory Year Programme. Lastly, the intensive counselling services and follow-up suggested could fit the needs of those students until specific intervention is approved by the MOE.

4. This study highlights the following criteria that can be used in the case of early admission to college, including the following: passing the national instruments that measures students' general abilities, attaining grade A or equivalent in school exams, attending at least one summer enrichment programme, passing the interview, providing recommendations from their teachers, and having their parents' permission. These criteria might be beneficial for Qiyas and universities who are interested in applying the Early Entrance Programme to accelerate gifted students.

5. Training is required for gifted teachers and qualified teachers who intend to work with gifted students in the following areas: characteristics of gifted students, and the social and emotional needs of gifted students. The MOE and the National Commission for Academic Evaluation and Accreditation may collaborate in offering training programmes, as well as consider the increase in the number of the Department of Psychology's alumni to cover the current and future demand for counsellors working with gifted students.

6. Institutions who care about innovation in Saudi Arabia such as Mawhiba, MOE, and King Abdul-Aziz City for Science and Technology should be encouraged to support the gifted acceleration programme, by providing an appropriate budget for those projects, ensuring the rise in innovation in Saudi Arabia that aligns with Vision 2030 to achieve the national performance indicators. Offering sufficient funding and legal channels for subsidies for such interventions might lead to a more fulfilling curriculum, conducting awareness campaigns, hiring the qualified personnel and partners, and providing the appropriate facilities and equipment.

### 7.4.1 Thoughts for the next step

Given the shortage of university-based acceleration programmes that include counselling services for gifted students in Saudi Arabia, major efforts to establish and operate them within universities, albeit on a small-scale, is desirable. I have suggested some steps below that could lead to achieving some movement in improving the acceleration application in Saudi Arabia.

A proposal based on this study has to be written by the author of this study, who has a background in gifted education, and directed to the Minister of Education. Following that, negotiations would be needed with the Minister and the Vice-Rector for Educational and Academic Affairs in KSU to keep things moving forward. Furthermore, a small school (unit) is required within KSU as a leading university in Saudi Arabia. Due to the political orientation that calls for gender equity in education, the school would start with two separate sections, one for boys and one for girls. Starting small was advised; however, it is possible that another school for boys would be established at King Faisal University for Petroleum and Minerals in Dhahran city, and perhaps also one for girls at Princess Norah University in Riyadh. The success of the practice will determine whether other schools will be opened in different parts of country. The unit or school could be under the umbrella of the Students Affairs Department, and in the near future, the unit may possibly be housed in an existing building that has perhaps been modified to be fit for purpose.

In the establishment phase, the formation of a committee or steering group is necessary, which includes members from the following:

- The author of this study

- Ministry of Planning and Economy (for their views on strategic planning)

- Vision 2030 team (planning and assigning Key Performance Indicators [KPIs])

- MOE (planning and executive action)

- Mawhiba (planning and executive action)

- Aramco (planning and financial support)

Based on my experience in gifted education, the school or unit would have to seek financial support from different channels such as the private sector organisation. The Saudi Telecom Company have a long history of supporting gifted students and innovation, and the Saudi American Bank (SAMBA) have shown great efforts in supporting programmes in community

partnerships. Alternatively, the school would have to be entrepreneurial and innovative to attract investment and funding, and collect donations from alumni networks. Alternatively, or in addition, they will have to operate Summer and Saturday enrichment programmes, charging a nominal fee in order to cover their expenses.

In terms of operations, it will involve the collaboration between the following organisations: Qiyas, Mawhiba, and the MOE during the student assessment phase. The MOE with the National Commission for Academic Evaluation and Accreditation will be involved in developing the curriculum. Finally, and crucially, knowing each organisation's role and function will reduce any conflicts that may arise and perhaps invite bids to supply the school.

## 7.5   Possible future research

This study aimed to explore the components of the US special school and the potential for transferring these components to the Saudi context in order to fill the gap in acceleration application. Given the key findings noted in this chapter, several research topics, questions, and methodology approaches are recommended for the future below:

1. Several areas have emerged during this study that need more consideration. Gifted identification in Saudi Arabia is still an area that requires further investigation. Saudi Arabia has 5,788,972 students according to the latest statistics shown on the MOE website (see chapter 2), and as Stage Two of this study revealed, only about 120 students have been accelerated across the Kingdom, which means that Saudi Arabia is only serving the top 0.01% who are exceptionally gifted based on the Gagné (2008) metric system. Therefore, this ratio does not align with global standards; therefore, indicating that identification of gifted students needs urgent investigation in Saudi Arabia. A possible future research question could be: What is the current policy for identifying gifted students in Saudi Arabia?

2. The application of one gifted intervention from one context to another should also be examined in future research, in particular, considering the influence of culture, power, and language on the proficiency of the intervention and its effectiveness on the transnational education between two contexts. Correlational research methods could be appropriate for

answering the question: What are the effects of culture and power on the proficiency of transnational education programmes?

3. Acceleration application is a pure area that needs further exploration in Saudi Arabia, as it is a new intervention. What is more, the long-term effect of acceleration and the socioeconomic effects of this application could also be considered. In addition, longitudinal research could support the efficiency of acceleration application in Saudi Arabia. A possible research question could be: What are the long-term effects of acceleration on a specific category (e.g. grades or gender)?

4. Finally, there is the subject of gifted students transitioning to college in terms of their academic, social, and emotional development, their experience in special programmes before and after being undergraduates, as well as exploring other factors that can affect gifted students' growth during this stage of their life. A grounded theory could be appropriate to understand this case, with suggested questions being: What is the process of transition to college? What are the influential factors that affect gifted students' transition to college?

## 7.6   Limitations

This study was limited to one particular US school that was unique in its application of acceleration (the number of schools which applied this type of acceleration was eleven to fourteen in the USA). The school is not representative of all the special schools in the USA, so generalisations cannot be applied to the entire population. However, it might possible that other schools have had different experiences that could be more applicable to the Saudi context. In order to determine if this is the case, administrative staff in different school settings could be asked to complete a survey, which then might provide further information about the key components of gifted education that are not covered in this study.

In Stage One, the method used in Stage One was a case study, which required the gathering of in-depth data from a relatively small-sized sample. However, I considered the sample to be a sufficient size to facilitate the drawing of a meaningful conclusion.

In Stage One, the visit took nine working days as requested by the school director. A longer period of time dedicated to data collection might have led to a better understanding, and

offered more insights into the school situations and factors contributing to the success of the provisions for gifted students.

Another limitation is the segregation between males and females in the Saudi institutions, which resulted in me not being able to enter one of the Saudi universities, leading me to have to interview the participant over the phone.

## 7.7 Summary

This study sought to explore the components of one particular American special school that applies acceleration, in order to examine the components for potential transferability to the Saudi educational system. The study revealed six educational components, two of which were completely transferable and four were subject to conditions. Optimistically, the recommendations of this study would enhance the situation of acceleration application in Saudi Arabia.

# Appendices

## Appendix 1: interview questions and their relation to the components

| Components by Clark and Zimmerman (2002) | Component ID |
| --- | --- |
| Educational setting and administrative arrangements | C1 |
| Teacher selection and strategies | C2 |
| Student identification and characteristics | C3 |
| Curriculum content | C4 |
| **Selected components by Renzulli and Reis (1997)** | |
| Organisational components: procedures for staff teaming and interaction, material, data base, community involvement | C5 |
| Service delivery components; Total Talent Portfolio (TTP), Curriculum modification techniques, Enrichment learning and teaching | C6 |
| School Structures; Enrichment Cluster, Regular Curriculum, Continuum of Special Service | C7 |

| Interview questions for Stage One | Related Component |
| --- | --- |
| 1.  What are your school's aims, who determines them, and why? | C5 |
| 2.  What are the policies relating to identification? | C3, C6 |
| 3.  How do you track your students' progress? | C6 |
| 4.  What is the role of the staff? | C5 |
| 5.  What is the role of the administration? | C5 |
| 6.  What is the role of the teachers? | C2, C5 |
| 7.  What are your responsibilities? | C5 |
| 8.  Are there any particular committees; if so, when do they meet? | C1, C5 |
| 9.  What are the functions of the committees, and who assists on these committees? | C5 |
| 10. Are there any associations that serve the school? | C5 |
| 11. What is the involvement of the community? Parents? Stakeholders? | C5 |
| 12. Is there any specific training programme for the staff? If so, why? | C5 |
| 13. What are the criteria for student admission? | C3. C6 |
| 14. What are the curriculums that you employ in the school? In addition, what are their outlines? | C4, C6, C7 |
| 15. How long have you been at this school? | C2 |
| 16. Have you always taught here? | C2, C5 |
| 17. What do you deliver to the students in SP? | C4, C7 |
| 18. What are the criteria for admission to the SP? | C3, C6 |

| Interview questions for Stage One | Related Component |
|---|---|
| 19. Do you rely on any specific teaching approach? If so, what is it? | C2, C6 |
| 20. What are your resources to deliver your curriculum and activities? Does technology feature in SEP? | C2,C4, C6 |
| 21. Are there specific strategies that you use in the classroom? | C2,C4, C6 |
| 22. What are the common problems that you face with the gifted students and how you deal with them? | C3 |
| 23. Do you have any extra plan or programme for any specific student? | C3, C6 |
| 24. Who assesses your work and in which aspects are you assessed? | C4, C5 |
| 25. What are the benefits of the programmes for the students? | C1 |
| 26. What do you deliver to the students in SEP? | C4, C6, C7 |
| 27. What are the criteria for admission to the SEP? | C3, C5 |
| 28. What experiences do you have with very able children? Where do you feel you need more training? | C3 |
| 29. Do you rely on any specific teaching approach? What works with your most able children? | C2, C6 |
| **Questions emerging after pilot study and discussion with supervisors** | |
| 30. How the school is financed?  Where do you receive your budget? | |
| 31. Is there anything else you want to discuss about working with the most able students? | |
| 32. In your opinion, what are the components of the special school for gifted students? | |
| 33. What are the differences between your school and the ordinary schools? | |

**Interview questions for Stage Two**

| Themes | Questions |
|---|---|
| **Educational setting** | 1. The findings indicated that there are benefits to locating the school within a university campus. Should we locate the Saudi school within a university campus? If so, why? And how? <br><br> 2. The US school building contains one classroom, a lounge, teacher and administrative offices, and a kitchen. To what extent would this be a suitable size and building layout for the Saudi school? <br><br> 3. The US school prepared the gifted students to the university life, and contains between fourteen and sixteen students for the Transition School and thirty-five for the Academy. Would this be a suitable starting point with a similar number? Why? Do we in Saudi Arabia have to start with a similar number of students? If so, why? <br><br> 4. The US school relies on periodic committee meetings to reach decisions and define policies and goals. Would such procedures be important for the proposed Saudi school? How might this be organised in a proposed Saudi school? <br><br> 5. The US school has funding from their superintendent. Who will fund the Saudi school? <br><br> 6. The US school relies on relevant organisations (i.e. NAGC to gain knowledge resources). What are the organisations that will promote and support the proposed Saudi school? Why? |
| **Leadership and personnel** | 7. The US school consists of: <br> • Administrative staff (one head teacher, two associate directors, an office manager, administrative assistant, and a financial officer) <br> • Counselling staff (academic counsellor with experience in mentoring gifted students and a counsellor in training) <br> • Education staff (nine transitional school teachers, four teachers for the Academy, nine Saturday programme teachers, two part-time contracted teachers, a programme coordinator, and a research assistant. Most of them have a PhD or Master's level qualification. |

| Themes | Questions |
|---|---|
| | Is this structure suitable for the proposed Saudi school? Do you suggest any recruitment plan? Would you like to add anything else? |
| **Identification process** | 8. To what extent are the identification policies and admission criteria in the US school appropriate for the Saudi context?<br>9. What outreach plans have been put in place for students? |
| **School programmes** | 10. The US school delivers three main programmes (Transition School, Early Entrance Programme and The Academy). Is it necessary for Saudi Arabia to start with all these programmes? If so, why? |
| **Counselling** | 11. The counsellor plays a major role in the students' preparation and support. Does the proposed Saudi school need such counselling services? If so, why? And what might this involve? |
| **Curriculum** | 12. The US school delivers the principal courses such as English, maths, calculus, and science. What are the recommended courses that the proposed Saudi school should start with?<br>13. The US school concentrates on higher thinking skills. What are the most important skills that the proposed Saudi school should focus on? Why?<br>14. How would gifted students be assessed in the proposed Saudi school? |
| **Additional question after piloting of Stage Two questions** | 15. What are the challenges and obstacles that the proposed school might face in Saudi Arabia? |

# Appendix 2: observation forms

**Observation Form/School**

| Date: | | Time: | | Observer: | |
|-------|---|-------|---|-----------|---|

Give descriptions/numbers of the components below:

| Educational setting | | Comments |
|---|---|---|
| **Offices:** | **Entries:** | |
| **Meetings room:** | **Halls:** | |
| **Resource room:** | **Catering:** | |
| **Library:** | **School day** | **School programmes** |
| | **Entry time:** | |
| **Amenities:** | | |

|  | Lunch time: |  |
| Corridors/ walls: | | |
| | Home time: | |
| Classes: | | |
| Other: | | |

| School map/ layout/ location |
| --- |
| |

**Observation form/classroom**

| Date: | Time: |
|---|---|
| Class: | Subject: |

| Educational setting/arrangements | | Classroom layout /sketch |
|---|---|---|
| **Related to students** | | |
| **Classroom arrangement** | | |
| **Facilities** | | |
| **Other** | | |
| **Curriculum** | | |
| **Instructions/ strategy** | | |
| **Interactions** | | |
| **Other** | | |

# Appendix 3: proposed visiting plan for the case school

| Date /time | Activity | | Description | Comments |
|---|---|---|---|---|
| 23/1/2016 | Campus tour by the researcher to observe the location and amenities surrounding the school. | | | |
| 25/01/2016 10.00 am- 2.00 pm | Observation | Interview | On the first day, the researcher will introduce herself to the centre staff, and then she would like to have an idea about the school design, layout, organisation, and structure. | The duration of the first visit will be about 3-4 hours. I attended the staff meeting |
| | Introducing activities/Q&A and School observation | X | | |
| 26/01/2016 0800 am- 3:00 pm | School observation (TS) | The Director | Interview: Open questions about school vision, mission, budget, policies, staff training, KPIs, parent support, curriculums and gifted identification. | |
| 27/01/2016 08:00 am- 3:00 pm | School observation | Associate Director | Interview: Open questions about coordination of the programmes, identification and nomination, type of gifted provision, the differences and between them and the impact of the programmes. | |
| 28/01/2016 08:00 am- 3:00 pm | School observation | TS school director (the English teacher) | Interview: Open questions about identification of the transition school, curriculums, teaching techniques and strategy. | |
| 29/01/2016 08:00 am- 3:00 pm | School/class observation | 2 Members of […] Academy/ Instructors | Interview: Open questions about identification of the transition school, curriculums, teaching techniques, and strategy. | |
| 30/1/2016 | Campus tour by the researcher to observe the location and amenities surrounding the school | | | |
| 01/02/2016 08.00 am- 3.00 pm | Class observation (TS) | Counsellor and counsellor intern | Interview: Open questions about nature of the Saturday programme, what they deliver to G&T, teaching technique and strategy, differentiation, the benefit of the programme, and evaluation. | |
| 02/1/2016 08.00 am- 3.00 pm | Class observation | Informal chat with Administrators | Financial issues, administration issues, and school rewards. | |
| 03/1/2016 08.00 am- 3.00 pm | Class observation | Informal chat with the school receptionist | School time and organisation. | |
| 04/1/2016 08.00 am- 3.00 pm | School/class observation | Director | Discussion about the visit. | |
| 05/02/2016 | Leave USA, return to UK | | | |

# Appendix 4: consent form

**CONSENT FORM (V.2) 04.Nov. 2015**

**Researcher name:** Jawaher H. Bin Yousef

**Ethics reference:** 17513

**Study title:** Designing a model for specialised schools for gifted students in Saudi Arabia

**Please initial the box(es) if you agree with the statement(s):**

I have read and understood the information sheet (04.11.2015 V. 2) and have

had the opportunity to ask questions about the study.

I agree to take part in this research project and agree for my data to be used for

the purpose of this study

I understand my participation is voluntary and I may withdraw at any time

without my legal rights being affected

I understand my data will be recorded and used for the purpose of this study

and my responses will be anonymised in reports of the research

**Data Protection**

**I understand that information collected about me during my participation in this study will**

**be stored on a password-protected computer and the hard copy will be stored in a locked**

**cabinet, and that this information will only be used for the purpose of this study. All files**

**containing any personal data will be made anonymous.**

Name of participant (print name) ……………………………………………………

Signature of participant…………………………………………………………….

Date……………………………………………………………………………

# Appendix 5: participant information sheet

**Study Title**: Designing a model for specialised schools for gifted students in Saudi Arabia

**Researcher**:     Jawaher Bin Yousef                    **Ethics number**: 17513

**Please read this information carefully before deciding to take part in this research. If you are happy to participate, you will be asked to sign a consent form.**

**What is the research about?**

I am a PhD student at the University of Southampton in the UK. This project forms part of my training which will lead to a doctoral degree in Education. This study aims to, first, explore the possibilities for gifted and talented education in Saudi Arabia in light of the established specialised school system in the USA. Second, to understand and explore the composition of the US specialised schools in terms of school policies, criteria for identifying gifted and talented students, staff qualifications, curriculum, and the provided services, in order to create and design a model that simulates to the greatest possible extent the US practice. In addition, to contribute to the literature of gifted education in Saudi Arabia. This contribution might help the decision makers in the relevant authorities to make further improvements.

**Why have I been chosen?**

The participants in this study are leaders and teaching staff who work in the […] for Young Scholars.

**What will happen to me if I take part?**

If you agree to take part, we will arrange to meet at a time that is convenient to you, in a quiet, private venue in which you feel comfortable. It will not cost you anything to take part or, if you prefer not to meet, we will conduct a phone interview at a convenient time to you. Once you have given your consent to take part, we will have a conversation, which will probably take about one and a half hours, about your work experiences in the […]. The conversation will be recorded by Voice Recorded Application on the researcher's mobile phone, with your consent, for transcription and analysis purposes.

**Are there any benefits in my taking part?**

I hope that you will find taking part an interesting experience. The results of this research may help the provision for gifted students in Saudi Arabia and other countries. There is very little research that explores the establishment of specialised schools for the gifted, so by taking part you will be helping the further enhancement and improvement of organisations that serve gifted students.

**Are there any risks involved?**

There are no real risks to being involved and you are not obliged to talk about any experiences you feel uncomfortable discussing or find distressing. You will have the opportunity to verify the

accuracy of the interview transcript and make any changes to the record. You have the right to withdraw from participation in this study at any time. All the recorded information is strictly confidential and will be kept in a password-protected computer and the researcher will maintain the privacy of participants.

**Will my participation be confidential?**

Confidentiality is very important in this study. The recording and any documents will be stored on a password-protected computer, so that they cannot be accessed by anyone else. In any written documents your name will be changed to a code, as will any other details by which you could be identified. Information will be kept safe in line with UK laws (the Data Protection Act) and University of Southampton policy.

**What happens if I change my mind?**

You have the right to withdraw at any time without any penalty and this will not have any effect on any of your rights.

**What happens if something goes wrong?**

If you have any concerns or complaints about how this research is conducted, you may contact:

Head of Research Governance, University of Southampton, UK.

rgoinfo@soton.ac.uk

+44 (0) 2380 595058

**Where can I get more information?**

If you have any further questions once you have read this information sheet, please get in touch with me using the following details:

Jawaher H. Bin Yousef

University of Southampton, UK

UK # 00447774462586

KSA# 00966501889977

Email: jhby1g12@soton.ac.uk

# Appendix 6: Arabic version of the consent form and information sheet for the Saudi experts (Stage Two)

**المدرسة المتخصصة للطلاب المسرّعين أكاديميا في المملكة العربية السعودية**

**اسم الباحثة:** جواهر حمد بن يوسف.

**مرجع الطالب: 25306**

رجاء أشر إلى الصندوق في حالة موافقتك على العبارات التالية: ـ

| | |
|---|---|
| | قد قرأت وفهمت ورقة معلومات المشاركين في الدراسة (V.1 2017-02-02) وكان لدي فرصة السؤال عن الدراسة. |
| | أوافق على مشاركتي في هذه الدراسة والموافقة على استخدام بياناتي لأغراض البحث. |
| | أفهم أن مشاركتي تطوعية ويمكنني الانسحاب في أي وقت دون أي مطالبة قانونية. |
| | افهم أنه سيتم تسجيل المقابلة صوتياً واستخدامها لغرض الدراسة ولن يتم تحديد هويتي في البحث. |

**حماية البيانات:**

أفهم أن المعلومات التي جمعت خلال مشاركتي في هذه الدراسة سوف يتم تخزينها على حاسوب شخصي محمي من خلال كلمة مرور، وسوف يتم تخزين النسخ الورقية في خزانة مغلقة، وسوف يتم استخدام هذه المعلومات لغرض هذه الدراسة فقط. ستكون جميع الملفات التي تحتوي البيانات الشخصية غير معرّفة لهوية صاحبها.

**اسم المشارك (اسم مطبوع):** ...............................................................

**توقيع المشارك:** ........................................................................

**التاريخ:** ...........................................................................

257

**اسم البحث: المدرسة المتخصصة للطلاب المسرّعين أكاديمياً في المملكة العربية السعودية.**

**الباحثة:** جواهر حمد بن يوسف.                    **رقم البحث:** 25306

الرجاء قراءة المعلومات بعناية قبل القرار من أجل المشاركة في البحث فإذا كنت سعيداً بالمشاركة، فسوف تُسأل لتوقيع استمارة موافقة أيضاً.

**عن ماذا هذا البحث؟**

أنا طالبة دكتوراه في جامعة ساوثهامبتون في بريطانيا. واهتمامي البحثي هو تعليم الطلاب الموهوبين في المملكة العربية السعودية، حيث يشكل المشروع جزء من تدريبي من برنامج الدكتوراه. تهدف الدراسة إلى فحص إمكانية نقل أو محاكاة تجربة أحد المدارس الأمريكية المتخصصة في برامج الإسراع وممارساتها إلى السعودية. قد تساهم هذه الدراسة في أثراء الأدب العربي في تعليم وممارسات رعاية الموهوبين. كما قد تساعد الدراسة في مساعدة صانعي القرار في المنظمات السعودية ذات العلاقة لتحسين وتنمية التعليم في الدولة.

**لماذا تم اختيارك؟**

قد تم اختيارك بسبب خبرتك في النظام التعليمي السعودي أو في مجال التعليم للموهوبين.

**ما هو المفترض حال مشاركتي؟**

في حالة أنك وافقت، سنقوم بترتيب لك مقابلة في وقت مناسب في مكان خاص تشعر فيه بالراحة، مع العلم ان ذلك لن يكلفك أي شيء. وإذا كنت تفضل عدم المواجهة الشخصية، بالإمكان أن نجري معك مقابلة تليفونية في الوقت المناسب لك. المقابلة قد تستغرق من 40 دقيقة إلى ساعة واحدة، تدور حول آرائكم عن تأسيس مدرسة متخصصة للطلاب الموهوبين المسرعين أكاديمياً. لا يوجد إجابات صحيحة أو خاطئة. وبناءً على موافقتك؛ سيتم تسجيل المحادثة سماعياً مستخدماً تطبيق الصوت على جوالي، بغرض التحليل البيانات.

**هل يوجد أي فائدة من مشاركتي؟**

أن مشاركتك ستضيف خبرة مهمة للدراسة. كما يمكن أن تساعد نتائج البحث في تقدّم الخدمات للطلاب الموهوبين في المملكة العربية السعودية والدول والأخرى، كما سوف تساعد في تنمية وتحسين المنظمات التي تخدم الطلاب الموهوبين.

**هل سأشترك في أي اخطار؟**

لا يوجد أي أخطار يتم تورطك فيها. فأنت غير ملزم أن تتحدث عن أي خبرات لا تشعر بالارتياح في مناقشتها. سيكون لديك الفرصة للتأكد من دقة المقابلة وعمل أي تغيرات على التسجيل. سيكون لديك الحق في الانسحاب من المشاركة في هذه الدراسة في أي وقت. جميع المعلومات سرية وتُحفظ على حاسوب محمي من خلال كلمة مرور، وعليه يحتفظ الباحث بسرية المشاركين.

**هل ستكون المشاركة سرية؟**

السرية مهمة جداً في هذه الدراسةً حيث يتم تخزين المقابلات وأي وثائق على حاسوب محمي بكلمة مرور حتى لا يتمكن أي شخص من الدخول عليه او اختراقه. وفي أي وثائق مكتوبة، سيتم تشفير اسمك وأي تفاصيل أخرى التي من خلالها قد يتم التعرف عليك. سيتم الحفاظ على المعلومات وفقاً لقوانين المملكة المتحدة (قانون حماية البيانات) وسياسة جامعة ساوثهامبتونِ.

**ما يحدث في حالة تغيير رأيي؟**

لديك الحق في الانسحاب من هذه الدراسة في أي وقت دون عقوبة. كما لن يؤثر ذلك على حقوقك.

**ما يحدث في حدوث خطأ ما؟**

إذا كان لديكم أي مخاوف أو شكاوى عن إجراء هذا البحث، يمكنكم الاتصال على: -

رئيس قسم الأبحاث.

جامعة ساوثهامبتون، المملكة المتحدة البريطانية.

**rgionfo@soton.ac.uk**

**+4402380595058**

**00447774462586**

**English translation of the consent form and information sheet for Saudi experts (Stage Two).**

Specialised school for academic accelerated students in Saudi Arabia

Name of the researcher: Jawaher Hamad Bin Yousuf

Student Reference: 25306

Please if you agree, tick the box next to the following sentences:

| | |
|---|---|
| I read and understood the information sheet of the participants in the study (V.1, 2-2-2017) and I had the opportunity of asking about the study | |
| I agree to participate in this study and accept the use of my data for the purpose of the study | |
| I understand that my participation is voluntary and I can withdraw any time without any legal claim | |
| I understand that the interview will be audio recorded and used for the study purpose, and I will not be identified in the research | |

Data Protection

I understand that the information collected during my participation in this study will be saved on a password-protectedpersonal computer, and that paper copies will be saved in a closed locker; this information will be used for the purpose of this study only. All the files that have personal data will not identify the identity of their owners.

Name of participant (printed)

Signature of participant:

Date:

**Information sheet for participation in the study**

Researcher: Jawaher Hamad Bin Yousuf             Number of the research: 25306

Please read the information carefully before a decision about participation in the research. If you are happy to participate, you will also be asked to sign a  consent form.

**What about this research?**

I am a PhD student at the University of Southampton, UK. My research interest is to educate gifted students in Saudi Arabia where this project is part of my training in the PhD programme. The study aims to examine the possibility of transfer or simulation of one of the American schools specialising in acceleration programmes and their practice to Saudi Arabia. This study may contribute to the enrichment of Arabic literature in learning and practising the care of gifted students; the study also may help in assisting the decision makers in the relevant Saudi organisations to enhance and develop education in the country.

**Why are you chosen?**

You are chosen because you have experience in the Saudi educational system or in the field of education for gifted students.

**What is supposed to happen if I participate?**

If you agree to participate, we will arrange an interview for you at an appropriate time in a special place where you feel comfortable, knowing that it will not cost you anything, and if you prefer no personal meeting, we can do a phone interview at a suitable time for you. The interview may take forty minutes to one hour. It will be on your opinions about establishing a specialised school for academically accelerated, gifted students. There are no right or wrong answers, and according to your consent, the conversation will be audio recorded using the sound application on my mobile for the purpose of analysing data.

**Is there any benefit from my participation?**

Your participation will add an important experience to the study. As well as the results, the research may help the progress of services for gifted students in Saudi Arabia and other countries. Furthermore, it will help in the development and improvement of organisations that serve gifted students.

**Will I participate in any dangers?**

You will not be involved in any risk. You are not committed to talking about any experience that you are not comfortable in discussing; you will have the opportunity to make sure of the accuracy of the interview and make any changes on the recording. You will have the right to withdraw from

participating in this study at any time. All information is confidential and is saved on a <u>password</u>-protected computer, and so the researcher will maintain the confidentiality of participants.

**Will participation be confidential?**

Confidentiality is very important in this study. The interviews and any documents will be saved on a <u>password</u>- protected computer so that no one can access this information or hack it, and in any written documents, your name or any other personal details will be encrypted so that no one can identify your data. The data will be saved and kept according to the laws of the United Kingdom (Data Protection Act) and the policy of the University of Southampton.

**What happens if I change my mind?**

You have the right to withdraw from this study at any time without penalty, and this will not affect your rights.

**What happens if an error occurs?**

If you have any concerns or complaints about conducting this research, you can communicate with:
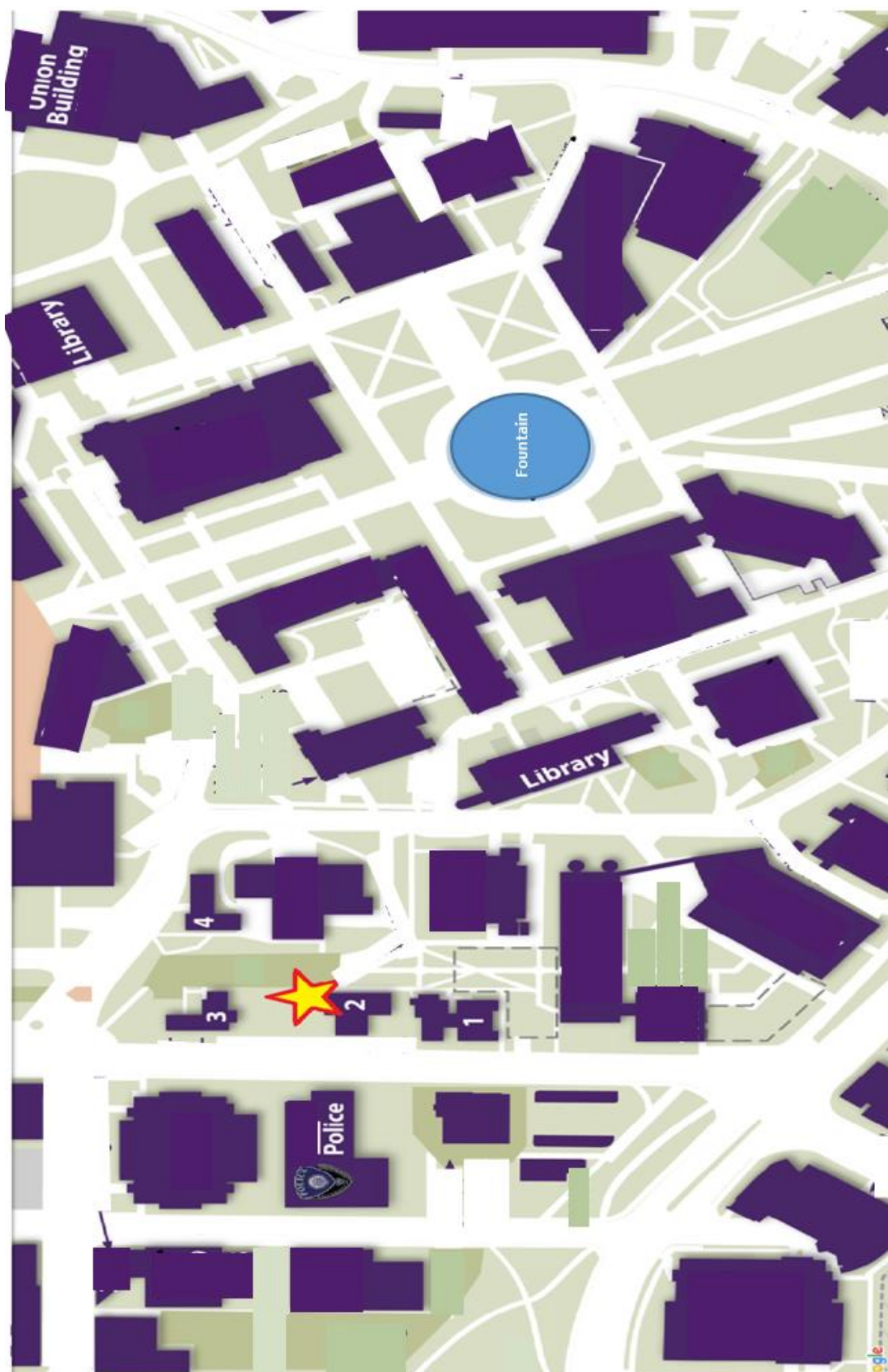
Head of Research Department

University of Southampton, United Kingdom

<u>rgionfo@soton.ac.uk</u>

<u>+4402380595058</u>

<u>00447774462586</u>

# Appendix 7: US school location/ university map

# Appendix 8: Arabic version of Stage Two interview questions

Translated in Appendix 1

**البناء الداخلي للمدرسة**

يشير هذا المصطلح الى بعض التصورات والأنظمة الداخلية المتعلقة بالخصائص المكانية، السعة، المصادر ، استراتيجيات التشغيل وكذلك المخاطر.

1. تشير نتائج الدراسة من وجود فوائد من وقوع المدرسة داخل الحرم الجامعي، من وجهة نظرك أين ممكن ان تنشئ مثل هذه المدرسة في السعودية؟

2. احتوت المدرسة الامريكية على 14- 16 طالب للمدرسة الانتقالية و35 للأكاديمية هل هو مناسب أن نبدأ بعدد مماثل لذلك؟ لماذا نعم ولماذا لا؟

3. يحتوي مبنى المدرسة الأمريكية على فصل دراسي واحد، ردهة، مكاتب طاقم العمل، مطبخ، هل سيكون مثل هذا الحجم مناسباً للمدرسة السعودية؟

4. المدرسة الأمريكية التي قمت بزياراتها تمول من قبل الدولة، في رأيك من سيقوم بتمويل مثل هذه المدرسة في السعودية؟

5. تعتمد المدرسة الأمريكية على المنظمات ذات الصلة (مثلNAGC) للحصول على مصادر معرفية؟ من المنظمات ممكن ان يدعم معرفيا المدرسة السعودية المقترحة؟ لماذا؟

6. تعتمد المدرسة الأمريكية على اجتماعات اللجان الدورية لاتخاذ القرار وتحديد الأهداف والسياسات كيف ممكن أن اتخاذ القرار في المدرسة السعودية؟ هل هذه الإجراءات ستكون مهمة للمدرسة السعودية؟ لماذا؟

7. لدى المدرسة خطط لتوعية الطلاب والتعريف بخدماتهم مثلاً يستخدمون برنامج السبت والبرامج الصيف لهذا الغرض، في رأيك ماهي خطط توعية الطلاب المناسبة؟

8. هل تود أن تضيف شيء آخر؟

**برامج المدرسة**

يشير هذا البند إلى البرامج التربوية المقدمة من قبل المدرسة مثل برنامج الدخول المبكر.

1. المدرسة الأمريكية تقدم ثلاثة برامج رئيسية (المدرسة الانتقالية، برنامج الدخول المبكر والأكاديمية)، هل من الضروري أن تبدأ المملكة العربية السعودية بكل هذه البرامج؟ إذا كان الأمر كذلك لماذا؟

2. هل تود أن تضيف شيء آخر؟

**القيادة وطاقم العاملين**

1. تتألف المدرسة الأمريكية من:

- طاقم إداري (مديرة ومديرة مكتب، مساعدين، مسؤول مالي، مساعد إداري)
- طاقم إرشادي (مستشار أكاديمي لدية خبره في ارشاد الموهوبين ومستشار آخر متدرب)
- طاقم تعليمي (تسعة معلمين للمدرسة الانتقالية وأربعة معلمين للأكاديمية وتسعة معلمين لبرنامج السبت، وثلاثة معلمين متعاقدين منسق برامج، مساعد باحث. معظمهم حاصلين على درجة الدكتوراه أو الماجستير. هل هذا الهيكل مناسب للمدرسة السعودية المقترحة؟ إذا كان الأمر كذلك لماذا؟

هل تود أن تضيف شيء آخر؟

**الإرشاد النفسي والأكاديمي**

1. يقوم المستشار الأكاديمي بدور رئيسي في إعداد الطلاب ودعمهم. هل تحتاج المدرسة السعودية المقترحة إلى مثل هذه الخدمات الاستشارية (متابعة تطور الطلاب، تحديد مسار الوظيفة)؟ إذا كان الأمر كذلك لماذا؟

2. هل تود أن تضيف شيء آخر؟

**التربية والتعليم**

1. تقدم المدرسة الأمريكية المقررات الأساسية مثل اللغة الإنجليزية والرياضيات وحساب التفاضل والتكامل والعلوم. ما هي الدورات الموصي بها التي يجب أن تبدأ بها المدرسة السعودية المقترحة؟

2. كيف يتم تقييم الطلبة الموهوبين في المدرسة السعودية المقترحة؟

3. تركز المدرسة الأمريكية على مهارات التفكير العليا. ما هي أهم المهارات التي يجب أن تركز عليها المدرسة السعودية المقترحة؟ لماذا ا؟

4. هل تود أن تضيف شيء آخر؟

**سياسات التعرف والاختيار**

1. إلى أي مدى تتناسب سياسات التعرف على الموهوبين والاختيار في المدرسة الأمريكية مع السياق السعودي؟

2. هل تود أن تضيف شيء آخر؟

أخيراً ماهي التحديات والعقبات التي من الممكن أن تواجه انشاء مثل هذه المدرسة؟

# Appendix 9: Arabic version of the document used for Saudi experts in Stage Two

هذا التصور هو نتاج دراسة حالة قامت بها الباحثة جواهر حمد بن يوسف لمدرسة متخصصة في الولايات المتحدة الأمريكية تقدم برنامج الدخول المبكر للجامعة للطلاب الذين تم تسريعهم أكاديمياً. هذه الدراسة أثمرت عن عدد من المبادئ في تعليم الموهوبين المسرعين أكاديمياً التي ساعدت في تطوير هذه الوثيقة. سنتناول في هذه الوثيقة أهم المكونات التي قامت عليها هذه المدرسة بهدف المناقشة المتعمقة لإمكانية نقل أو محاكاة مثل هذه التجربة للبيئة السعودية، لذا نرجو منك قراءة هذه الوثيقة بتأني ومناقشة أي نقطة تشعر أنها غير واضحة أو مفهومة بالنسبة لك.

**ماهي هذه المدرسة:**

هذه المدرسة هي إحدى المدارس الـإحدى عشر الموجودة في أمريكا والتي تنفرد في تقديم برامج متخصصة للطلاب الذين تم تسريعهم أكاديميا من الصف السابع أو الثامن أو العاشر حيث ينتقلون للدراسة في الجامعة كلياً دون المرور بالمرحلة الثانوية وما يميز هذه المدرسة عن غيرها هو أنها تحتوي على برنامجين فريدين وهما:

- برنامج الدخول المبكر (Early Entrance Programme) ويسبقه سنة تحضيرية تسمى بالمدرسة الانتقالية (Transition School) لطلاب الصف السابع أو الثامن أي ما يعادل الأول متوسط والثاني متوسط في السعودية.
- برنامج الأكاديمية وهو برنامج مخصص لطلاب الصف العاشر أي ما يعادل الأول ثانوي في السعودية.

**دور المدرسة:**

تقوم هذه المدرسة بتوفير البيئة والبرامج المناسبة لهؤلاء الطلاب، حيث تقدم في المدرسة الانتقالية برنامج أكاديمي ارشادي مدته سنة واحدة يهيأ فيها الطالب بحيث يسهل عليه الانتقال إلى الحياة الجامعية بعدئذ. ينضم الطالب بعدها الى برنامج ارشادي أخر يسمى برنامج الدخول المبكر للجامعة. تقدم المدرسة كذلك برنامج الأكاديمية وهو برنامج تقديم مواد تدريبية متخصصة في تحضير الطالب اكاديمياً هي أقل شدة من المدرسة الانتقالية حيث الطلاب في هذه المرحلة أكبر سناً وأكثر استعداداً. كما تقدم المدرسة برامج اثرائية متعددة مثل برنامج السبت وبرامج الصيف.

تركز المدرسة كذلك على الجانب العاطفي والاجتماعي للطالب حيث تقدم برنامج إرشادي متخصص بوجود استشارة متخصصة في توجيه ومساعدة الطلاب الموهوبين.

**أين تقع هذه المدرسة:**

تقع هذه المدرسة المتخصصة في وسط الحرم الجامعي لاحد أكبر الجامعات الكبرى في أمريكا حيث يمتاز موقعها بقربها من المكتبة العامة ومباني الجامعة والمرافق.

**من يقوم على هذه المدرسة:**

يقوم على هذه المدرسة نخبة من العاملين الذين يحملون شهادات الدكتوراه في تخصصات مختلفة كما أن مدير المدرسة أحد المتخصصين في مجال الموهبة.

**ماهي المناهج التي يقدمونها:**

تختلف المناهج حسب البرنامج حيث يقدم لطلاب المدرسة الانتقالية مثلاً رياضيات، احصاء، لغة انجليزية، أحياء، كيمياء، فيزياء. بينما في البرامج الأخرى تقدم برامج ارشادية تحضيرية تسهل الانخراط في الحياة الجامعية مثل الكتابة الأكاديمية، اتيكيت التعامل مع أعضاء هيئة التدريس.

تعتمد استراتيجية التدريس على تنمية مهارات التفكير العليا مثل التحليل، التطبيق والتقييم. كما تركز على المناقشة والبحث. الأوراق البحثية القصيرة هي أحد أهم مخرجات البرنامج والتي من خلالها يتم تقييم أداء الطلاب.

**عدد الطلاب:** تقبل المدرسة عدد 16 طالب للمدرسة الانتقالية و35 طالب ممن انهو الصف العاشر.

**شروط التسجيل:** تشترط المدرسة للانضمام بعض الشروط مثل:

- اجتياز اختبارات القدرات الوطنية مثل CAT بنسبة نجاح 85% أو أكثر في اللغة الإنجليزية والرياضيات والقراءة.
- عامين من السجل الأكاديمي التي تظهر مستوى ثابت من التميز.
- تاريخ ميلاده الذي يشير أن الطالب لم يصل بعد لسن الخمسة عشرة.

**لماذا هذه المدرسة مهمه؟**

إن سياسة التسريع الأكاديمي الحالية (قرار رقم 3424953) في المملكة العربية السعودية تقتصر على فئة محددة من الطلاب حسب ما جاء في الدليل الإجرائي الصادر من وزارة التعليم. ومصير هؤلاء الطلاب غير واضح خاصة بعد التخرج من المرحلة الثانوية بعمر يقل عن 17 عام وهو أقل من السن المتوقع لدخول الجامعة. لذلك وجود برامج تحضيرية ضمن مدارس متخصصة داخل الجامعات هو أشبه بحاضنة لهؤلاء الطلاب بحيث تؤهلهم أكاديمياً، نفسياً واجتماعياً للانخراط بيسر داخل الجامعة.

**مصادر المدرسة:**

تحصل المدرسة على مخصص مالي من الدولة منفصل عن مخصصات الجامعة. كما أنها تعتمد على عدة جهات للحصول على المصادر المعرفية مثل منظمة National Association of Gifted Childre NAGC. أما بخصوص المصادر الإجرائية وسير العمل فالريق يعتمد على الاجتماعات الدورية والقرارات التي تصدر منها.


**بعض الصور من خارج وداخل المدرسة الأمريكية:**

تم ارفاق بعض الصور التي التقطتها من المدرسة الأمريكية لاعتبار انها قد تكون مجدية أو مرغوبة في رسم الصورة عن المدرسة السعودية المقترح
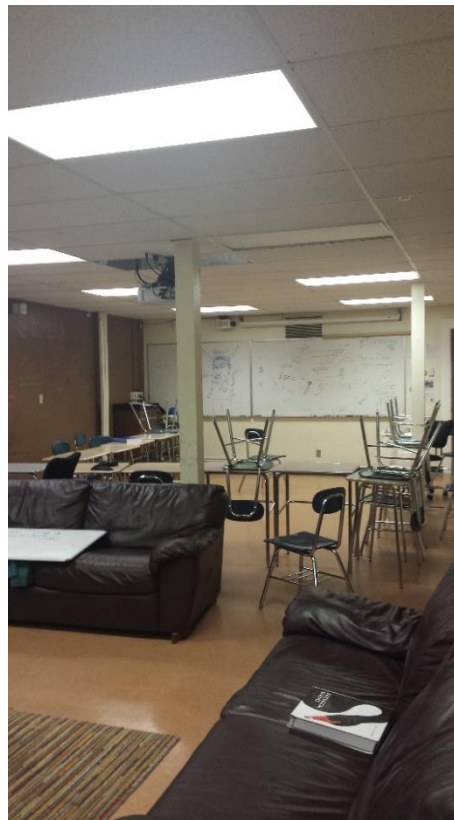
| This photo removed for anonymisation | |
|---|---|
| صورة للمدرسة من الخارج | مدخل المدرسة |

| الجهة الخلفية لفصل المدرسة الانتقالية | فصل المدرسة الانتقالية | ردهة الأكاديمية | مقدمة فصل المدرسة الانتقالية |
|---|---|---|---|

**English translation of the document used for Saudi experts in Stage Two**

**Proposal for specialised schools providing Early Entrance Programmes for gifted students**

This proposal is the result of a case study of a specialised school in the US which provides programmes for students who have been academically accelerated. It is one of the eleven schools that distinctively provide such programmes on the US level. We will tackle in this paper the most significant components on which this school has depended, aiming at discussing deeply the possibility of copying or imitating such experience. Therefore, we kindly ask you to read this paper carefully and discuss any point that you feel is not clear or understandable for you.

**What is this school?**

This school is one of the eleven state schools that exist in the USA and provide specialised programmes for students who have been academically accelerated from seventh, eighth, or tenth grades until they completely move to college, without moving to secondary school. What distinguishes this school from other schools is that it contains two unique programmes:

- Early entrance programme is preceded by a preparatory year called the Transition School for students at seventh or eighth grades, i.e. the equivalent of the average first and second in Saudi Arabia.
- The Academy programme which is a specialised programme for students at tenth grade, i.e. the equivalent of the first secondary in Saudi Arabia.

The school has conducted several pieces of research on itself that have helped to improve its performance.

**The school role**

This school provides the appropriate environment and programmes for these students, as it provides in the Transition School a guided academic programme for one year in which students become qualified to find it easy to move to university life after that. Then students join another guided programme called Early Entrance Programme to the university.

This school further provides the Academy programme which gives specialised training in subjects in the students' academic preparation. They are less intense than Transition School where students at this stage are older and more prepared. Moreover, the school provides various enrichment programmes, such as Saturday programme and Summer programme.

The school also focuses on the emotional and social side for students as it provides a specialised guidance programme with the attendance of specialised consultants to guide and help talented students.

**Where is the location of this school?**

This specialised school is located in the centre of the university campus at one of the biggest major universities in the US. Its location is characterised by its proximity to the public library and university buildings and facilities. In addition, the school has several partnerships with relevant organisations that support the school in knowledge resources.

**Who works at this school?**

There are experienced specialised staff working at this school who hold doctorate certificates in different specialisations. Most of them are faculty members of the university. Furthermore, the school principal is one of the specialists in the talented field. The staff are responsible for deciding, determining, and applying the school vision.

**What are the curricula they provide?**

The curricula vary according to the programme; for example, Transition School students study mathematics, statistics, English language, biology, chemistry, and physics. In the other programmes, there is preparation guidance to facilitate engagement in university life, such as academic writing and etiquette for dealing with the faculty.

Teaching strategy depends on developing high thinking skills such as analysis, implementation, and evaluation. It also focuses on discussion and researching. The short research paper is one of the major outputs of the programme through which the students' performance is evaluated.

**Number of students**

The school accepts sixteen students for the Transition School and thirty-five students who have completed tenth grade.

**Registration requirements**

The school has the following requirements for joining:

- Passing the national capabilities tests (CATs) with a success rate of 85% or more in English, mathematics, and reading
- Two years of academic records that declare a constant level of excellence
- The students' date of birth which indicates that the students are under fifteen
- Passing the interviews

- Possessing motivation, commitment, and maturity

**Why is this school important?**

The current academic acceleration policy (Resolution no. 3424953) in Saudi Arabia is restricted to a specific class of students in accordance with what has been mentioned in the procedural manual issued by the Ministry of Education. The future of these students is not clear especially after graduation from secondary school under seventeen years of age, which is younger than the expected age to attend university. Therefore, the existence of preparation programmes within specialised schools inside the university is more like a nursery for these students to qualify them at academic, psychological, and social levels to smoothly engage in the university.

# Appendix 10: acceleration policy in Saudi Arabia and the structural manual by the MOE

وزارة التربية والتعليم

( ٢٨٠ )

وكالة الوزارة للتعليم

وكالة

الإدارة العامة للاتصالات الإدارية
الرقـــم : ٣٤٢١٠٦٦٩٧
التاريـــخ : ١٤٣٤/١٢/٢٥
المرفقـات : الدليل الإجرائي

الرقم: ٣م-٢-١
التاريخ:
المرفقات:
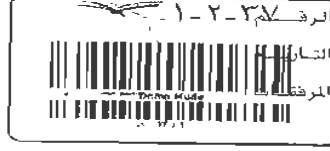
الموضوع/ الدليل الإجرائي لتسريع الطلاب الذين أبدوا تفوقاً غير عادي.

تعميم لجميع إدارات التربية والتعليم

سعادة مدير عام التربية والتعليم بمنطقة     حفظه الله

سعادة مدير التربية والتعليم بمحافظة     حفظه الله

السلام عليكم ورحمة الله وبركاته ، وبعد :

إشارة إلى قرارنا رقم ٣٤٢٤٩٥٣ وتاريخ ١٤٣٤/١/٥هـ، بشأن اعتماد تطبيق نظام تسريع الطلاب / الطالبات الذين أبدوا تفوقاً غير عادي.

عليه اعتمدوا تطبيق نظام التسريع وفق الدليل الإجرائي المرفق، وتكليف لجنة نظام التسريع بإدارتكم للإشراف على تطبيقه. وللاستفسار يمكن التواصل مع اللجنة المركزية لنظام التسريع من خلال بريدها الإليكتروني:

acceleration@moe.gov.sa

والسلام عليكم ورحمة الله وبركاته.

نائب وزير التربية والتعليم
وكيل الوزارة المساعد
د. خالد بن عبد الله السبتي

صورة : لمكتبنا
صورة : نائب الوزير لشؤون التعليم ( البنين / البنات )
صورة : وكيل الوزارة للتعليم ( البنين / البنات )
صورة : للإدارة العامة ( الموهوبين / الموهوبات )

الإدارة العامة للموهوبين
الرقـــم : ٣٤٢١٠٦٦٩٧
التاريـــخ : ١٤٣٤/١٢/٢٩
المرفقـات : الدليل الإجرائي

صورة طبق الأصل

# الدليل الإجرائي لتسريع

# الطلاب والطالبات الذين أبدوا تفوقاً غير عادي

# في مراحل التعليم العام

إعداد

الإدارة العامة للموهوبين / للموهوبات

ذو الحجة ١٤٣٤هـ

تقديم

يعد أسلوب تسريع الطلاب والطالبات الذين أبدوا تفوقاً غير عادي ، أحد الأساليب التربوية التي تطبقها وزارة التربية والتعليم لإعداد كفاءات علمية وطنية من الموهوبين والمتميزين لخدمة المجتمع في وقت مبكر من أعمارهم. كما أن سرعة التطور في شتى نواحي الحياة وفي مجالاتها المختلفة من دواعي الاهتمام بهم . وفي تعليمنا نخبة مميزة من الطلاب والطالبات تستطيع أن تسهم مستقبلاً في استمرار نهضة الأمة والتقدم بها وإسعادها ، ولذلك فإن في تحفيز النابغين ورعايتهم، و تشجيع أدائهم إبرازاً لهذه الطاقات البشرية القادرة على خدمة البلاد المباركة كأحد أهم عناصر النجاح والتميز في كافة مجالات الحياة. إن التسريع إلى سنوات دراسية متقدمة يصنع فرصة للطالب والطالبة لتشكيل شخصيتهما وإعدادهما إعداداً مبكراً، ويفتح مجالاً للمؤسسات الوطنية لتستثمر في هؤلاء المتميزين والمبدعين.

وتعتبر هذه الإجراءات أداة تنفيذية لما صدر في لائحة تقويم الطالب والمذكرة التفسيرية والقواعد التنفيذية فيما يخص الطلاب والطالبات الذين أبدوا تفوقاً غير عادي آخذة في اعتبارها جميع النواحي الشخصية والسلوكية للطلاب والطالبات المستفيدين منه.

فنرجو من الله التوفيق للعاملين على تطبيق هذه الإجراءات والإشراف عليها وأن يحقق لأبنائنا وبناتنا ما يوازي تطلعاتهم وطموحاتهم ، و أن يسهم في تحقيق جزء مما تتطلع إليه بلادنا المباركة في أبنائها المبدعين.


وزير التربية والتعليم


فيصل بن عبد الله آل سعود

# مقدمة

يأخذ الترفيع / التسريع (Acceleration) أشكالاً متعددة، فهناك التسريع في القبول المبكر لطلاب الصف الأول للدخول إلى المدرسة ، وهناك التسريع على مستوى المادة الدراسية أو المحتوى العلمي لموضوع أو أكثر لمادة ما أتقن الطالب فيها المهارات المطلوبة ، ومن أنواع التسريع الشائعة تسريع الطالب أو الطالبة بالترفيع والنقل من صف إلى صف دراسي أعلى ، وهو ما يتطرق إليه هذا الدليل ، وهذا النوع من أنواع التسريع يطبق في كثير من الأنظمة التعليمية حول العالم إذ يعتبر أحد الأساليب العلمية للاستجابة إلى ما يبديه الطلبة من تفوق و موهبة و نبوغ علمي يفوق أقرانهم، حيث يتمتعون باستعدادات و قدرات غير عادية تمكنهم من التعلم والاستيعاب بشكل أسرع ، مما يحتم على النظام التعليمي إيجاد آليات واستراتيجيات تتعامل مع هذه الفئة من الطلاب، وقد نصت الفقرة (الثالثة) من المادة (السابعة) من قرار اللجنة العليا لسياسة التعليم رقم ٥٣/ق ع والمؤرخ في ١٤٢٦/٠٢/٠١ هـ على أنه يحق لوزارة التربية والتعليم أن تصدر قراراً بتسريع الطالب الذي يبدي تفوقاً غير عادي في دراسته إلى صف أعلى من صفه. وقد قامت وكالة الوزارة للتعليم بتشكيل لجنة لوضع إجراءات لتطبيق نظام التسريع و تم عرضها على مجلس الوزارة ، وصدرت الموافقة عليها من قبل المجلس بالقرار رقم ١ / ١٠ / ٤٢٨ والمبلغ بالخطاب رقم ١٢/١/٧ بتاريخ ١٤٢٩/١/١٨هـ . بالإضافة إلى اكتمال مشروع التعرف على الموهوبين الذي تقوم به مؤسسة الملك عبد العزيز ورجاله للموهبة والإبداع بالتعاون مع المركز الوطني للقياس والتقويم والذي ساعد على إمكانية الاستفادة من المقاييس وادوات التقويم في تطبيق استراتيجية التسريع.

ومن هنا قررت وزارة التربية والتعليم بعد الدراسة المستفيضة من قبل المختصين تطبيق أسلوب التسريع وفق الخطوات الإجرائية الموضحة في هذا الدليل (الدليل الإجرائي للتسريع). وتأمل الوزارة أن يسهم هذا الأسلوب في استثمار قدرات الطلاب الموهوبين لتحقيق رؤية خادم الحرمين الشريفين في التحول لمجتمع المعرفة.

## مبررات تطبيق أسلوب التسريع :

١. أسلوب التسريع يراعي الفروق الفردية ويعطي فرصة التقدم في السلم التعليمي لمن لديهم استعدادات وقدرات للتعلم والاستيعاب تفوق أقرانهم.

٢. التسريع هو أحد الأساليب الفاعلة التي تلبي الاحتياجات العلمية عند الطلبة المتفوقين والموهوبين.

٣. يساعد التسريع الطلبة المُسرّعين على أن يكونوا أكثر نضجاً من أقرانهم وزملائهم من الناحية الاجتماعية والنفسية.

٤. أسلوب التسريع يزيد من قوة الدافعية والتحفيز عند الطلاب و يهيئ لبيئة تنافسية بينهم.

٥. التسريع يساعد على استثمار المواهب والقدرات عند الطلبة بشكل مبكر.

٦. التسريع يساعد ويشجع الطلاب على التقدم نحو فرص أكثر للتفوق والابداع.

٧. الأخذ بأسلوب التسريع مؤشر ايجابي على مرونة النظام التعليمي وبعده عن التقليدية.

٨. أسلوب التسريع يحسن من جودة التعليم وتأهيل المعلمين نحو خدمة الفئة التي استفادت من التسريع.

٩. أسلوب التسريع يساعد على تخفيض التكاليف.

## التعريف الإجرائي للمصطلحات الواردة في دليل التسريع :

١. التسريع : المقصود به في هذا الدليل هو إجراء يعطي الطالب الذي استوفى كامل شروط التسريع ــ الحق في الانتقال عبر السلم التعليمي إلى صف دراسي أعلى بصف دراسي واحد من الصف الدراسي الذي يدرس فيه.

٢. الطالب الذي أبدى تفوقاً غير عادي: هو من يتقن جميع المهارات المقررة في المواد الدراسية بالنسبة للمرحلة الابتدائية بشكل مبكر ومتميز عن أقرانه ، أو من حصل على معدل عام ٩٨٪ فأكثر ، ومعدل ٩٧ ٪ فأكثر في كل مادة من المواد الدراسية المقررة في السنة الدراسية السابقة والفصل الأول من السنة التي يرشح فيها للتسريع بالنسبة للمرحلة المتوسطة أو الثانوية. بالإضافة إلى حصوله على الدرجات المطلوبة للتسريع في الاختبارات والمقاييس المعدة لذلك.

٣. الطالب : عند ورود كلمة الطالب فيقصد به الطالب والطالبة.

## المراحل والصفوف الدراسية التي يطبق عليها نظام التسريع :

يسمح للطالب خلال مسيرته في التعليم العام أن يحصل على فرصة التسريع مرتين كحد أقصى، وفق الجدول التالي :

| ملاحظات | الصفوف التي يتم التسريع فيها | | المرحلة الدراسية | م |
|---|---|---|---|---|
| | إلى الصف | من الصف | | |
| يسرّع الطالب في المرحلة الابتدائية مرة واحدة فقط . | السادس | الرابع | الابتدائية | ١ |
| يسرّع الطالب في المرحلة المتوسطة مرة واحدة فقط . | الثالث | الأول | المتوسطة | ٢ |
| يسرّع الطالب في المرحلة الثانوية مرة واحدة فقط . | الثالث | الأول | الثانوية | ٣ |

# إجراءات التسريع

**يتم التسريع وفق المراحل التالية بالترتيب :**

١. تحديد الطالب الذي اجتاز مقياس التعرف على الطلاب الموهوبين ( أعلى ٣٪ ).

٢. التأكد من إتقان الطالب جميع المهارات المقررة في المواد الدراسية بالنسبة للمرحلة الابتدائية ، أو حصول الطالب على معدل عام ٩٨٪ فأكثر ، ومعدل ٩٧ ٪ فأكثر في كل مادة من المواد الدراسية المقررة في اختبارات الفصل الدراسي الأول من السنة الحالية.

٣. تقديم برنامج توعوي للطلاب المرشحين لنظام التسريع.

٤. إجراء المقابلة الشخصية للطالب والتأكد من موافقته وولي الأمر لاستكمال إجراءات الترشيح .

٥. التأكد من اكتمال بيانات الطالب المرشح للتسريع.

٦. تطبيق الاختبار التحصيلي على الطلاب الذين انطبقت عليهم شروط التسريع.

٧. اعتماد التسريع وإعلان نتائجه .

**وفيما يلي تفصيل للمراحل السابقة :**

**المرحلة الأولى : تحديد الطالب الذي اجتاز مقياس التعرف على الطلاب الموهوبين ( أعلى ٣٪ )**

تتم هذه الخطوة مركزياً وفق نتائج المشروع الوطني للتعرف على الموهوبين، وترسل أسماء الطلبة الحاصلين على أعلى ٣٪ من مجموع الطلاب إلى إدارات التربية والتعليم، من قبل الإدارة العامة للموهوبين.

**المرحلة الثانية : التأكد من حصول الطالب على تحصيل دراسي مرتفع في اختبارات الفصل الدراسي الأول في كل مادة من المواد الدراسية المقررة ، حسب الجدول التالي:**

| المرحلة | الصف | التحصيل الدراسي |
|---|---|---|
| الابتدائية | الرابع الابتدائي | إتقان جميع المهارات المقررة في المواد الدراسية. |
| المتوسطة | الأول المتوسط | الحصول على معدل عام ٩٨٪ فأكثر ، ومعدل ٩٧ ٪ فأكثر في كل مادة من المواد الدراسية المقررة في اختبارات الفصل الدراسي الأول في كل مادة من المواد الدراسية المقررة. |
| الثانوية | الأول الثانوي | |

**المرحلة الثالثة : تقديم برنامج توعوي للطلاب المرشحين لنظام التسريع.**

تنفيذ برنامج توعوي من قبل المدرسة يستهدف الطلاب المرشحين وأولياء أمورهم، توضح فيه شروط التسريع، وفوائده، وإجراءاته.

**المرحلة الرابعة : التأكد من موافقة الطالب وولي أمره لاستكمال إجراءات الترشيح :**

١- إجراء مقابلة شخصية للطالب المرشح وفق الاستمارة المعدة لذلك، ويشترط الحصول على ٧٠ درجة فأكثر.

٢- تعقد لجنة التوجيه والإرشاد لقاءً مع الطالب وولي أمره لتعريفهما بنظام التسريع والتأكد من مدى الاستعداد والرغبة في الاستفادة منه، والحصول بعد ذلك على الموافقة الخطّية من الطالب وولي أمره لاستكمال باقي إجراءات الترشيح.

**المرحلة الخامسة : التأكد من اكتمال بيانات المرشح للتسريع :**

١- رفع ملف الطالب المرشح بعد استكمال جميع البيانات المطلوبة من قبل إدارة المدرسة إلى لجنة التسريع بإدارة التربية والتعليم.

٢- استكمال دراسة وضع الطالب المراد تسريعه من جميع الجوانب، وتدقيق البيانات من قبل لجنة التسريع في إدارة التربية والتعليم ثم رفعها إلى اللجنة المركزية لنظام التسريع / الإدارة العامة للموهوبين.

**المرحلة السادسة : تدقيق بيانات الطلاب المرشحين :**

١- تدقيق بيانات الطلاب المرشحين من قبل اللجنة المركزية للتسريع.

٢- اعتماد الأسماء المرشحة وإرسالها لإدارات التربية والتعليم.

٣- تحديد جداول الاختبارات التحصيلية وإرسالها لإدارات التربية والتعليم.

**المرحلة السابعة : تطبيق الاختبار التحصيلي على الطلاب الذين انطبقت عليهم شروط التسريع :**

تتولى الإدارة العامة للتقويم إجراء الاختبارات التحصيلية للصفوف المراد تخطيها وهي : ( الصف الخامس الابتدائي، والصف الثاني المتوسط، والصف الثاني الثانوي بجميع أقسامه )، ثم تصحيحها والرفع بالنتائج للجنة المركزية لنظام التسريع لاعتمادها.

## المرحلة الثامنة : اعتماد التسريع وإعلان نتائجه :

١. اعتماد النتائج من قبل اللجنة المركزية لنظام التسريع بالوزارة .

٢. إعلان أسماء الطلاب الذين تم تسريعهم عبر نظام نور ، قبل بدء الدراسة من العام الدراسي الجديد.

٣. متابعة تكيّف الطالب الذي تم تسريعه في المرحلة الجديدة نفسياً واجتماعياً، خلال الفترة التجريبية لمدة أربعة أسابيع (كما في فقرة ٥ ــ ١٥  ص ٥ من المذكرة التفسيرية ) تحت الملاحظة الدقيقة، والتقييم الموضوعي، ثم رفع تقرير عن حالة الطالب إلى لجنة التسريع بإدارة التربية والتعليم.

٤. رفع تقرير من قبل لجنة التسريع بإدارة التربية والتعليم عن حالة الطلاب الذين تم تسريعهم وذلك بعد انتهاء الفترة التجريبية إلى اللجنة المركزية لنظام التسريع / الإدارة العامة للموهوبين.

٥. منح الطالب شهادة اجتياز، معتمدة من قبل الإدارة العامة للموهوبين / الموهوبات ، ومصدقة من قبل الإدارة العامة للاختبارات والقبول.

٦. دراسة الأوضاع النفسية والاجتماعية للطلاب الذين لم يتكيفوا خلال الفترة التجريبية، ورفع تقرير عن نتائج الدراسة للجنة المركزية لنظام التسريع.

**اللجان المشرفة على نظام التسريع :**

١.   **لجنة التسريع المركزية في وزارة التربية والتعليم :**

تكون اللجنة برئاسة مدير عام الموهوبين وعضوية كل من :

١.   مدير عام الموهوبات ( نائباً للرئيس )

٢.   الإدارة العامة للموهوبين / الموهوبات ( عضواً ومقرراً ).

٣.   الإدارة العامة للتوجيه والإرشاد  بنين / بنات ( عضواً ).

٤.   الإدارة العامة للاختبارات والقبول  بنين / بنات (عضواً).

٥.   الإدارة العامة للإشراف التربوي  بنين / بنات (عضواً).

٦.   الإدارة العامة للتقويم                      (عضواً).

٢.   **لجنة التسريع في إدارة التربية والتعليم :**

تكون اللجنة برئاسة مدير عام / مدير التربية والتعليم وعضوية كل من :

١-   المساعد للشؤون التعليمية ، نائباً للرئيس.

٢-   المساعدة للشؤون التعليمية ، عضواً.

٣-   مدير إدارة / رئيس قسم الموهوبين بنين / بنات ، عضواً ومقرراً

٤-   مدير إدارة / رئيس قسم التوجيه والإرشاد بنين / بنات ، عضواً.

٥-   مدير إدارة / رئيس قسم الاختبارات والقبول بنين / بنات ، عضواً.

٦-   مدير إدارة / رئيس قسم الإشراف التربوي  بنين / بنات، عضواً.

**الخطة الزمنية لتنفيذ إجراءات التسريع :**

| الفصل | التاريخ | الأعمال | المسؤول |
|---|---|---|---|
| الفصل الدراسي ١٤٣٥/١٤٣٦هـ | ١٤٣٥/٢/٧هـ | اللقاء التعريفي بنظام التسريع عبر برنامج لقاء | اللجنة المركزية للتسريع |
| | ١٤٣٥/٢/٢١ | تنفيذ المرحلة الأولى من مراحل التسريع | اللجنة المركزية للتسريع |
| | ٢- ١٤٣٥/٤/١٣هـ | تنفيذ المرحلة الثانية من مراحل التسريع | لجنة التسريع بالإدارة التعليمية |
| | ١٤٣٥/٥/٣هـ | تنفيذ المرحلة الثالثة من مراحل التسريع | لجنة التوجيه والإرشاد |
| | ٨- ١٤٣٥/٥/١٦هـ | تنفيذ المرحلة الرابعة من مراحل التسريع | لجنة التوجيه والإرشاد |
| | ٥/٢٩ - ١٤٣٥/٦/١٠هـ | تنفيذ المرحلة الخامسة من مراحل التسريع | لجنة التسريع بالإدارة التعليمية |
| | ٦/١٣- ١٤٣٤/٧/٩هـ | تنفيذ المرحلة السادسة من مراحل التسريع | الموهوبين / الموهوبات |
| | ١٠- ١٤٣٥/٨/٢٨هـ | تنفيذ المرحلة السابعة من مراحل التسريع | التقويم / الاختبارات والقبول |
| | ٢- ١٤٣٥/٩/٦هـ | تنفيذ المرحلة الثامنة من مراحل التسريع | اللجنة المركزية للتسريع |
| الفصل الدراسي ١٤٣٥/١٤٣٦هـ | ١٤٣٥/١٠/٢٨هـ | إدراج أسماء الطلاب في الصفوف التي تم تسريعهم إليها. | لجنة التوجيه والإرشاد |
| | ١١/٥- ١٤٣٥/١٢/١هـ | متابعة تكيّف الطالب / الطالبة الذي تم تسريعه في المرحلة الجديدة نفسياً واجتماعياً، خلال الفترة التجريبية لمدة أربعة أسابيع. ثم رفع تقرير عن حالة الطالب بعد انتهاء الفترة التجريبية إلى لجنة التسريع في إدارة التربية والتعليم. | لجنة التوجيه والإرشاد |
| | ١٤٣٥/١٢/٢٥هـ | رفع تقرير عن حالة الطالب بعد انتهاء الفترة التجريبية إلى الإدارة العامة للموهوبين / الموهوبات. | لجنة التسريع بالإدارة التعليمية |
| | ٢- ١٤٣٦/١/٦هـ | يُمنح الطالب شهادة اجتياز تعتمد من اللجنة المركزية لنظام التسريع | اللجنة المركزية للتسريع |
| | مستمر | متابعة الأوضاع النفسية والاجتماعية للطالب الذي تقدم للتسريع سواء تم تسريعه أو لم يتم. | لجنة التوجيه والإرشاد |

**English translation of the Acceleration policy in Saudi Arabia and the structural manual by the MOE**

 Ministry of Education                                      (280)

Public Administration for Management Communication

No:      393106697

Date: 25/12/1434

Attachments: Procedural Guide

### Circular to all the Departments of Education

His Excellency the Director General of Education of District, May God protect him.

His Excellency the Director of Education in Governorate, May God protect him.

Peace, mercy and blessings of God.

With reference to our decision No. 3434953, dated 5/1/1434 H, concerning the adoption of applying the Acceleration System on the students who show extraordinary excellence.

Accordingly, please adopt the application of the Acceleration System according to the attached procedural guide, and entrust to the Acceleration Committee in your department to supervise its application. For further information please contact the Central Acceleration Committee by e-mail (acceleration@moe.gov.sa)

Peace, mercy and blessings of God upon you

Deputy Minister of Education

Signed

Dr Khaled Bin Abdullah Al-Subti

Ministry of Education

General Administration for Gifted Students

# Procedural guide to accelerate

# students who show extraordinary excellence

# in the stages of general education

Prepared by

General Administration for Gifted Students

Due-El-Hijjah 1434 H

Ministry of Education

General Administration for Gifted Students

## Foreword

The technique of accelerating students who show extraordinary excellence is one of the educational techniques applied by the Ministry of Education in order to prepare national scientific competencies of gifted and distinguished students privileged to serve society at an early age. Furthermore, the pace of development in the different areas of life is of great interest for them. In our education system, there is a distinguished elite of students that can contribute in the future to the continuation of the nation's growth, progress, and happiness. Therefore, when we motivate and care for these excellent students and encourage their performance, this highlights those human energies that are capable of serving our blessed country as one of the most important elements of success and excellence in all aspects of life. The process of acceleration to advanced school years creates an opportunity for students to form their character and prepare themselves early, as well as opening the way for national institutions to invest in these distinguished and creative students.

These procedures will be considered as an executive tool as issued in the students' assessment list, the explanatory memorandum, and the executive rules concerning the students who show extraordinary excellence, taking into consideration all the personal and behavioural aspects of the students who benefit from the acceleration.

We ask God to give great success to those who apply these procedures and supervise them, to achieve for our sons and daughters what is equivalent to their expectations and aspirations, and also to contribute to achieve part of what our blessed country aspires to in its creative sons and daughters.

Minister of Education

Faisal Bin Abdullah Al- Saud

Ministry of Education

General Administration for Gifted Students

## Introduction

Promotion/Acceleration takes many forms: there is acceleration in the early admission of first grade students to enter school, and there is also acceleration in the level of the subject or scientific content of one or more themes for the subject in which the students have mastered the required skills. One of the common types of acceleration is the students' acceleration by promotion and transferring them to a higher grade, as described in this guide. This type of acceleration is applied in many educational systems around the world, as it is considered one of the best scientific techniques to respond to students' excellence, gifts and scientific genius which make them superior to their peers. They have extraordinary willingness and capabilities that enable them to learn and understand faster, which requires the educational system to find mechanisms and strategies to deal with this category of students. The (third) paragraph of the (seventh) Article of the decision of the Higher Committee for Education Policy No. 53/   dated 1/3/1436 H stated that the Ministry of Education has the right to issue a decision to accelerate to a higher grade the students who show an extraordinary excellence in their studies. The Ministry of Education has formed a committee to set the procedures to apply the system of acceleration; the procedures are then presented to the Council of Ministers, and they are approved by the council according to the decision no.1/10/428, as informed by the letter no.7/1/13 dated 18/1/1439 H. This is in addition to the completion of the preparation of the project for Gifted Identification by King Abdul-Aziz and his Companions Foundation for Giftedness and Creativity, in cooperation with the National Centre for Assessment and Evaluation in which it has helped to make use of standards and assessment tools in the application of the acceleration strategy.

After extensive study by specialists, the Ministry of Education has decided to apply the technique of acceleration in accordance with the procedural steps outlined in this guide (the procedural guide of acceleration). The Ministry hopes that this technique will contribute to the investment of the capacities of gifted students in order to achieve the vision of the Custodian of the Two Holy Mosques in the transformation into knowledge society.

**Justification for the application of the Acceleration approach**

1. Acceleration takes into account the individual differences and gives the opportunity to progress up the educational ladder to those who have more willingness and capacities for learning and understanding than their peers.
2. Acceleration is one of the most effective approaches that meet the scientific needs of excellent and gifted students.
3. Acceleration helps accelerated students to become more mature than their peers and colleagues in social and psychological terms.
4. Acceleration increases the power of motivation and stimulation of students, and creates a competitive environment among them.
5. Acceleration helps to invest the talents and abilities of students at an earlier age.
6. Acceleration helps and encourages students to progress towards more opportunities for excellence and creativity.
7. This approach is a positive indicator of the flexibility of the educational system and its distance from traditional approaches.
8. This approach improves the quality of education and qualifies teachers to serve the category of students who benefit from acceleration.
9. This approach helps to reduce costs.


**Procedural definition of the terms included in the Acceleration guide**

1. **Acceleration:** a procedure that gives the right to students who fulfil all the requirements of acceleration to move up the educational ladder to one higher grade than the grade in which they study.
2. **Students who show extraordinary excellence**: those who are proficient in all the skills studied in school subjects at the primary stage early and distinctively from their peers, or those who have an average rate of 98% and more, and the rate of 97% and more in each of the subjects studied in the previous school year and the first semester of the year in which they are nominated for acceleration for intermediate or secondary stage. This is in addition to obtaining the grades required for acceleration in the tests and instruments prepared for that.
3. **Students:** male or female students.

**Stages and classes that apply Acceleration**

During the course of their career in general education, students are allowed the opportunity for acceleration at least twice, according to the following schedule:

| | Educational stages | Grades to accelerate | | Notes |
|---|---|---|---|---|
| | | from grade | to grade | |
| 1 | primary | fourth 4$^{th}$ | sixth 6$^{th}$ | students may be accelerated only once |
| 2 | intermediate | first 1$^{st}$ | third 3$^{rd}$ | students may be accelerated only once |
| 3 | secondary | first 1$^{st}$ | third 3$^{rd}$ | students may be accelerated only once |

Ministry of Education

General Administration for Gifted Students

**Acceleration procedures**

Acceleration is carried out according to the following stages in this order:

1. Identifying the students who pass the Gifted Identification Scale (top 3%)
2. Ensuring that the students master all the skills in the course materials for the primary stage, or that the students obtain a general rate of 98% or more, and a rate of 97% or more in each subject of the course materials in the semester exams of the current year
3. Introducing an awareness-raising programme for the students
4. Conducting the students' personal interview and confirming the guardians' consent
5. Ensuring that the applicants' data for acceleration is complete
6. Examining the students' data
7. Conducting the attainment tests
8. Adopting acceleration and announcing the results.

**First stage: identifying the students who pass the Gifted Identification scale (top 3%)**

According to the results of the National Project for Gifted Identification, sending the names of students in the top 3% to the Department of Education, by the General Administration for Gifted Students. This is all carried out centrally.

**Second stage: ensuring that the students master all the skills in the course materials for the primary stage, or that the students obtain a general rate of 98% or more, and a rate of 97% or more in each subject of the course materials in the semester exams of the current year**, according to the following table

| Stage | Grade | Educational attainment |
|---|---|---|
| primary | 4th primary | mastering all the skills in the course materials |
| intermediate | 1st intermediate | obtaining a general rate of 98% or more, and a rate of 97% or more in each subject of the course materials in the first semester exams in the current year |
| secondary | 1st secondary | |

**Third stage: introducing an awareness-raising programme for the students**

Implementing an awareness-raising programme at the school that aims at the student candidates and their guardians, in which the terms, benefits and procedures of acceleration are set.

**Fourth stage: conducting the students' personal interview and confirming the guardians' consent**

1. Conducting a personal interview with the students, according to the prepared form, on the condition that the student gets seventy marks or more.
2. The steering committee for guidance and direction meeting the students and their guardians to familiarise them with the system of acceleration and to ascertain their readiness and willingness to benefit from it; then obtaining all their written approval, to complete the remaining nomination procedures.

**Fifth stage: ensuring that the applicants' data for acceleration is complete**

1. Submitting the students' report after the completion of all the required data by the school administration to the acceleration committee in the Department of Education.
2. Completing the study of the status of the students to be accelerated in all aspects, and examining the data by the Acceleration Committee in the Department of Education and then submitting it to the Central Committee of the Acceleration system/the General Administration for Gifted Students.

**Sixth stage: examining the students' data**

1. Examining the students' data by the Central Committee of Acceleration.
2. Sending the students' names to the Department of Education.
3. Setting the results tables of the attainment tests and sending them to the Departments of Education.

**Seventh stage: conducting the attainment tests**

The General Administration of Evaluation will conduct the attainment tests for the grades to step over as follows: fifth grade primary, second grade intermediate and second grade secondary with all its sections, correcting these tests, and submitting the results to the Central Committee of the Acceleration System.

**Eighth grade: adopting acceleration and announcing the results**

1. Adopting the results of the Central Committee of the Acceleration System in the Ministry.
2. Announcing the names of the students who are accelerated through the system of 'Nour', before the beginning of the new academic year.
3. Following up the adaptation of the students in the new stage psychologically and socially, during the trial period of four weeks (as mentioned in 5-15 paragraph p.5 in the explanatory memorandum), under close observation and objective evaluation, then submitting a report about the students' status to the Acceleration Committee in the Department of Education.
4. Submitting a report by the Acceleration Committee, about the status of students who are accelerated after their completion of the trial period, to the Central Committee of the Acceleration System/the General Administration for Gifted Students.
5. Granting the students an accredited certification by the General Administration for Gifted Students, certified by the General Administration for Exams and Admission.

6. Studying the psychological and social circumstances of the students who did not adapt during the trial period, and submitting a report about the results of the study to the Central Committee of the Acceleration System.

**Committees supervising the Acceleration System**

1. **Central Acceleration Committee in the Ministry of Education:**

   The committee is headed by the Director General of Gifted Care Directorate and the membership of the following:
   1. Director General of the **Gifted Care Directorate** (vice-president)
   2. General Administration of Gifted Students (member and reporter)
   3. General Administration of Direction and Guidance, boys/ girls (member)
   4. General Administration of Exams and Admission, boys/girls (member)
   5. General Administration of Educational Supervision, boys/girls (member)
   6. General Administration of Evaluation (member)

2. **Acceleration Committee in the Department of Education**

   The committee is headed by the Director General/Director of Education and the membership of the following:

   1. Assistant of Educational Affairs, vice-president
   2. Assistant of Educational Affairs, member.
   3. Director of Administration/ Head of Gifted Students Department, boys/girls, member and rapporteur.
   4. Director of Administration/Head of Direction and Guidance Department, boys/girls, member.
   5. Director of Administration/Head of Exams and Admission Department, boys/girls, member.
   6. Director of Administration/Head of the Educational Supervision Department, boys/girls, member.

**Time plan for the implementation of the acceleration procedures**

| Semester | Date | Actions | Responsible |
|---|---|---|---|
| Academic year 1434/1435 | 7/3/1435 H | introductory meeting of acceleration system through 'Leqa' system | Central Acceleration Committee |
| | 21/2/1435 H | implementing the first of the acceleration stages | Central Acceleration Committee |
| | 2-13/4/1435 H | implementing the second of the acceleration stages | acceleration committee in the Educational Administration |
| | 3/5/1435 H | implementing the third of the acceleration stages | Direction and Guidance Committee |
| | 8-16/5/1435 H | implementing the fourth of the acceleration stages | Direction and Guidance Committee |
| | 29/5-10/6/1435 H | implementing the fifth of the acceleration stages | acceleration committee in the Educational Administration |
| | 13/6-9/7/1434 H | implementing the sixth of the acceleration stages | Gifted students centre |
| | 10 /28/8/1435 H | implementing the seventh of the acceleration stages | Evaluation/exams and admission |
| | 2-6/9/1435 H | implementing the eighth of the acceleration stages | Central Acceleration Committee |
| Academic year 1435/1436 | 28/10/1435 H | listing students' names in the accelerated grades | Direction and Guidance Committee |
| | 5/11–1/12/1435 H | observing the adaptation of the accelerated students in the new stage, psychologically and socially, during a trial period of four weeks and submitting a report about the students, after completing the trial period, to the Acceleration Committee in the Department of Education | Direction and Guidance Committee |
| | 25/12/1435 H | submitting a report about the students, after completing the trial period, to the General Administration for Gifted Students | acceleration committee in the Educational Administration |

| | 2- 6/1/1436 H | students are granted certification adopted by the Central Acceleration Committee | Central Acceleration Committee |
| --- | --- | --- | --- |
| | continuous | observing the psychological and social circumstances of the students who applied for the acceleration, either accelerated or not | Direction and Guidance Committee |

المملكة العربية السعودية

وزارة التعــليم

(٢٨٠)

وكالة الوزارة للتعليم

اللجنة المركزية لنظام التسريع

وزارة التعــليم

## قـــرار

## (صـــورة)

إن وزير التعليم

بناءً على الصلاحيات المخولة له نظاماً

وبناءً على ما نصت عليه الفقرة (الرابعة) من المادة (الثالثة عشرة) من لائحة تقويم الطالب الموافق عليها من المقام السامي بالبرقية رقم (٤٥٣٩٧) وتاريخ ١٤٣٥/١١/٠٥ هـ على أنه " يجوز تسريع الطالب الذي أبدى تفوقاً غير عادي في دراسته إلى الصف الأعلى من صفه وفقاً لضوابط تُعد من الوزارة "، وإشارة إلى تعميمنا رقم (٣٧١٠٣١٢٧٢) وتاريخ ١٤٣٧/٠٦/١١هـ بشأن اعتماد تطبيق نظام تسريع الطلاب الذين أبدوا تفوقاً غير عادي وفق الدليل الإجرائي لنظام التسريع. وبناءً على ما ورد في محضر اللجنة المركزية لنظام التسريع بالوزارة بتاريخ ١٤٣٧/١٠/٠٨هـ.

يقرر ما يلي :

أولاً : يُسرّع الطلاب والطالبات المجتازون لاختبارات التسريع للعام الدراسي ١٤٣٧- ١٤٣٨ هـ حسب البيانات المرفقة على النحو التالي:

١- ينقل الطلاب والطالبات المجتازون في المرحلة الابتدائية من الصف الرابع ابتدائي إلى الصف السادس ابتدائي وعددهم ( ٦٧ ) طالباً وطالبة.

٢- ينقل الطلاب والطالبات المجتازون في المرحلة المتوسطة من الصف الأول المتوسط إلى الصف الثالث المتوسط وعددهم ( ٥٨ ) طالباً وطالبة.

ثانياً : على إدارات التعليم متابعة تكيف الطلاب والطالبات الذين تم تسريعهم، ويُرفع تقرير عن حالتهم للجنة المركزية لنظام التسريع بالوزارة ليتم اعتماد شهادات الاجتياز للذين أمضوا الفترة المقررة وفق النظام بنجاح.

ثالثاً : يبلغ هذا القرار لمن يلزم لاعتماده وتنفيذه، وأصله للإدارة العامة للموهوبين بالوزارة.

والله الموفق.

وزير التعليم

د. أحمد بن محمد العيسى

صـ- لمكتبنا

صـ- مع التحية لسعادة وكيل الوزارة للتعليم (بنين/ بنات )

صـ- مع التحية للإدارة العامة للموهوبين (بنين/ بنات ) مع الأساس

صـ- مع التحية لكل إدارة عضو باللجنة المركزية لنظام التسريع بالوزارة

صـ- مع التحية لنظام نور

صـ- مع التحية للإعلام التربوي بالوزارة.

الرقم :

التاريخ : ١٤٣٧/ ١١ /٠٥هـ

**English translation of latest statistics on accelerated students by the MOE**

Kingdom of Saudi Arabia

Ministry of Education

Central Acceleration Committee

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**Resolution**

(copy)

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Minister of Education

According to the powers vested in him by law, and in accordance with what is stated in the (fourth 4th) paragraph of Article (13) of the student evaluation list approved by the High Commissioner by telegram no.(45397), dated 5/11/1435 H,  students who show extraordinary excellence shall be accelerated to a higher grade according to the regulations set by the Ministry. With reference to our circulation no. (371021372) dated 11/6/1437 H about the adoption of the application of the Accelerating System of students who show extraordinary excellence according to the procedural guide of the Acceleration System, based on what is stated in the minutes of the Central Acceleration Committee in the Ministry on 8/10/1437 H, the committee decided the following:

First: Students who pass the acceleration tests for the academic year 1437-1438 H shall be accelerated according to the attached data as follows:

1. Students who pass the primary stage are to be transferred from fourth grade to sixth grade primary, and their number is 67 students.
2. Students who pass the intermediate stage are to be transferred from first grade intermediate to third grade intermediate, and their number is 58 students.

Second: Education Departments should follow up on the adaptation of students who have been accelerated, and submit a report about their status to the Central Committee of the Acceleration System in the Ministry, in order to adopt passing certificates for those who have successfully passed the period stipulated in accordance with the system.

Third: This decision shall be passed to whoever is required to adopt, implement, and apply this decision, and to the General Administration for the Gifted Care in the Ministry.

Minister of Education

Dr. Ahmad Bin Mohamed Al-Eissah

To our Office

With greetings to his Excellency the Secretary of the Ministry of Education

With greetings to the General Administration for Gifted Students

No. 2203

# Appendix 12: researcher approval document from the MOE

المملكة العربية السعودية

وزارة التعليم

(٢٨٠)

وكالة التخطيط والمعلومات

المركز الوطني للبحوث التعليمية والابتكار

الرقم : .................

التاريخ : .................

المشفوعات : .................

**وزارة التعليم**
Ministry of Education

الموضوع : تسهيل مهمة الباحثة/ جواهر بنت حمد اليوسف

سعادة مدير عام التعليم بمنطقة الرياض                    وفقه الله

السلام عليكم ورحمة الله وبركاته، ،

تجدون سعادتكم برفقه استمارة مقابلة لطالبة الدكتوراه بجامعة (ساوثهامبتون) في بريطانيا/ جواهر بنت حمد اليوسف، بعنوان "تصور لمدارس متخصصة تقدم برنامج الدخول المبكر للطلاب المسرعين أكاديمياً".

آمل من سعادتكم التكرم بالتوجيه للإدارة العامة للموهوبين (بنين ـ بنات) بتسهيل مهمة الباحثة .

وتقبلوا سعادتكم وافر التحية والتقدير ، ، ،

مساعد مدير

المركز الوطني للبحوث التعليمية والابتكار

عبدالله بن سعد السكران

**English translation of the researcher approval document from the MOE**

Kingdom of Saudi Arabia

Ministry of Education

(280)

Planning and Information Ministry

National Centre for Educational Research and Innovation

**Subject: Facilitating the task of the researcher: Jawaher Bint Hamad Bin Yousuf**

His Excellency the Director General of Education in Riyadh Region

Peace, mercy and blessings of God,

Your Excellency, please find attached an application form for the PhD student in the University of Southampton in the United Kingdom, Jawaher Bint Hamad BinYousuf, entitled 'A Visualisation of Specialised Schools offering Early Application for Academically Accelerated Students'

I hope from your Excellency to kindly request the guidance of the General Administration for Gifted students (boys-girls) to facilitate the task of the researcher

Please accept greetings and appreciation

Assistant Director of National Centre for Educational Research and Innovation

 Signed

Abdullah Bin Saa'd Alsahan

# Appendix 13: types of special schools in the USA

**Admission procedures**

Typically**,** special schools target ninth, tenth, and eleventh grades, and there are standards for nomination and acceptance such as standardised national achievement tests, written essays, interviews, accomplishment, awards, and recommendation letters from a parent or teacher. Usually, schools have admission strategies. For example, some schools determine a cut-off test score required for admission, or discourage generating large pools of applicants that could lead to large numbers of denied applicants. In addition, some special schools consider emotional and social maturity, which they evaluate through interviews with the students and their parents or peers. Indicators of learning motivation and commitment are often considered by admission committees in order to ensure success in rigorous programmes (Corcoran & Baker-Smith, 2015; Rapp, 2008).

Some special schools depend strictly on their own admission test approved by the relevant authorities. In some cases, there are centralised centres to distrebute the applicants among schools. Usually, schools open their applications in the autumn or at a certain time during the academic year. Applicants can apply to a variety of preferred special high schools, and then scores on the admissions test are sorted from highest to lowest in order to distribute the students according to their preference, cut-off scores in the preferred school, and number of available seats. 'A centralised mechanism matches applicants to schools, taking into account preferences, space, admissions priorities (such as geography), and schools' rankings of students' (Corcoran & Baker-Smith, 2015; p.4). Applicants have the right to reject the offer if it is contrary to their desired school, or if the applicants decide to enrol in a private school (Abdulkadiroglu et al., 2005; Abdulkadiroğlu et al., 2014). However, the administration has to take into account the racial balance composition in pupil assignments in order to address diversity and avoid racial isolation (Mickelson et al., 2008).

**Magnet schools**

The USA struggles with balancing ethnicity and socioeconomic composition in traditional schools, as for example, white students prefer not to be enrolled in a school with a majority of black students. In contrast, there are few black students enrolled in white schools (Mickelson et al., 2008). Therefore, Magnet schools aim to decrease racial segregation in the USA, to improve

educational opportunities for low-income families and to resolve educational inequities (US Department of Education, 2008p).

The Federal Court defined Magnet schools as those 'having a distinctive program of study to attract a cross-section of students from all racial groups voluntarily' (Estes, Levine, & Waldrip, 1990, p.99). Through specific curricular focus, schools are 'magnetically attracting' students from different locations to achieve a racial and socioeconomic balance (Mickelson et al., 2008).

In Magnet schools, subjects focus on, for example, mathematics, science, language immersion, visual performing arts, or technology to be selected by students (Blazer, 2012; Miller, 2011). Advanced instructional approaches are provided in schools in order to meet the needs of students across different ethnic and economic backgrounds (Blazer, 2012; Siegel-Hawley & Frankenberg, 2012).

Magnet schools promote equity through empowering students from all backgrounds, serve a diverse group of students, and ensure that those students have the ability to achieve high academic standards and have access to rigorous learning challenges. Magnet schools prepare students for college life and successful professional careers through rigorous academic programmes. Furthermore, Magnet schools gain community partnership through engaged support from the community, university, business partners, and families. Such external resources enable Magnet schools to offer high quality programmes (US.Department of Education, 2008a; US Department of Education, 2008b).

A number of studies that examined Magnet schools report that they have a positive impact on student performance and achievement. Several factors contribute to this result as researchers indicated: greater expenditure per pupil, variety of resources, innovative environment, rigorous admission criteria, and the employment of qualified teachers. In addition, gifted students in Magnet schools achieve greater proficiency and receive significantly higher scores on national standardised tests compared with their peers in traditional schools (Blazer, 2012; Judson, 2014; Miller, 2011; Sikma & Osborne, 2014).

Furthermore, students joining Magnet schools report more positive attitudes and behaviours than students enrolled in traditional schools. Studies have reported that Magnet students are more competent and committed to school attendance, have higher educational ambitions, have a greater sense of community at school, have higher graduation rates, have more positive intergroup

associations, and experience less racial tension among peers. In addition, Magnet schools have higher levels of parent participation and community involvement. On the other hand, some studies have found comparable achievement between Magnet and traditional schools. On the whole, these studies show that students who join Magnet schools can take advantage of their exclusive course offerings and advanced instructional practices while maintaining their accomplishment in core courses (see Blazer, 2012; Bui et al., 2012; Miller, 2011; Rollins & Cross, 2014). On the other hand, some studies show that Magnet schools decrease racial integration and have not addressed the racial segregation issue (e.g. see Bifulco, Cobb & Bell, 2009). However, some studies attribute racial imbalance issues to residential segregation (totally segregated neighbourhood by race or socioeconomic level), absent policy intervention, student assignment policies that prioritise the proximity to school, and/or lack of transportation to the schools outside the district (see e.g. Siegel-Hawley & Frankenberg, 2018).

However, this type of school might not be appropriate for the Saudi context where public schools cannot follow a similar curriculum to Magnet schools, as the curriculum in the Saudi educational system is central, generalised, and determined by the MOE. Further, inequities in Saudi Arabia in the education are gender inequities not racial inequities.

### Charter schools

Charter schools are the most widely successful school reform initiative in the US, where they began in 1992. The schools are funded by the public sector and run under a charter by stakeholders such as parents, educators, interested groups of people, private organisation, or universities who define the school mission, vision, accountability, and governance structure. However, 'charter schools are not operated by public school district employees … Charter schools operate under the authority of a 'charter' granted by an authority delineated in state law' (Feiock, 2015; p. 2).

Charter schools are designed to have greater autonomy in curricula and programmes, budgets, staff, and educational approaches, in order to achieve innovation in education. Normally, charter schools are subject to state educational regulations, and are publicly funded, and consequently they cannot reject the right of admission of any student. This affects gifted identification procedures and makes customising the school for the minority (gifted) category difficult. The innovative system of a charter school has the ability to reform the traditional modes of teaching and learning which happen in traditional schools. However, there are many drawbacks

to opening charter schools, such as the struggle to implement primary educational requirements, not achieving typical standards, and low priority given to applying gifted programmes (Berends, 2015; Feiock, 2015; Judson, 2014; Plucker et al., 2007; Raymond, 2014).

However, charter schools encourage market competition among schools that have led to enhanced school performance and achievement. What is more, having a school choice system has decreased educational bureaucracy and given charter schools more flexibility and efficiency. However, Siegel-Hawley and Frankenberg (2018) mention that charter schools are recorded as having higher racial imbalance than other traditional schools; therefore, they are not addressing their purpose. Hence, the solution for the USA could be in increasing school choice with enhanced policies that can support the school function and the equity of enrolment to the schools, and provide competitive grant programmes (Blagg & Chingos, 2017).

Furthermore, decision making related to policies and organisational structure is less controlled by external bodies such as education authorities and is more subject to stakeholders' demands (Feiock, 2015; Raymond, 2014). However, charter schools might not be the suitable way to establish special schools for gifted students in Saudi Arabia, where public and private schools are not independent in curricula, as they have to be approved by the MOE. In addition, principals in the private schools in Saudi Arabia have to be hired by the MOE. Therefore, the MOE might not allow such schools.

**School within school**

The 'school within a school' setting meets those needs of gifted students which cannot be met without special provision. It is attractive to those who are looking for distinctive learning opportunities that cannot be found in the regular curriculum or schools. The National Association of Elementary School Principals officially defined a 'school within a school' as 'a separate entity, running its own budget and planning its own programmes. However, school safety and building operation remain vested with the principal of the larger school, and use of shared space must be negotiated' (McAndrews & Anderson, 2002, p. 2).

'School within a school' is a set of strategies and techniques delivered to gifted students in a regular classroom or a wing of one school, where gifted students work inside the class as a special cohort. The staff possess special qualifications and can provide curriculum and instruction at a higher level of complexity. The 'school within a school' system addresses, to some extent, the

conflict between having distinctive educational opportunities and experiencing diversity through engaging in normal social life. This model of provision allows gifted students to move in and out of the special class, and helps the students satisfy their social and emotional needs, and interact with their peers and the general school population (Matthews & Kitchen, 2007; Miller, 2011).

However, educators need to pay attention when school within a school programmes are housed in larger schools, in terms of '(a) transparency and communication; (b) flexible access to gifted programs; (c) equitable access to equipment, facilities, and field trips; (d) awareness of misconceptions and stereotypes; and (e) recognition of diverse pathways to excellence and achievement' (Matthews & Kitchen, 2007, p.256).

However, evidence indicates that gifted and talented students show higher achievement when grouped together for the majority of the day (Kulik & Kulik, 1982; Kulik & Kulik, 1984; Kulik, 1993). In addition, Rogers (1991) found that the school within a school had a significant positive effect on students' learning; therefore this approach offers differentiated instruction to address the needs of gifted students and at the same time provides access to the resources of the school (Matthews & Kitchen, 2007).

In contrast, there are many disadvantages of the school within a school approach. Existing gifted learners within a large school may be exposed to fractured relationships, competition, and inequitable tracking. What is more, critics have long argued that high ability students already have privileges, and that it is therefore unfair to provide them with greater resources while there are urgent needs in the mainstream population and among students at risk, such as those who have a high probability of failing academically (Dewees, 1999; McAndrews & Anderson, 2002). However, this type of school might be suitable for developing and enhancing the situation of pull-out enrichment programmes in the Saudi public schools, for them to be 'school within a school' and offer extra working hours for gifted students plus an enriched curriculum.

# Appendix 14: pilot testing of the research instruments

**Testing of instruments**

The pilot study is 'a small-scale study administered before conducting an actual study. Its purpose is to reveal defects in the research plan' (Fraenkel, Wallen, & Huyn, 1993, p. 628). So I decided to conduct the pilot study in order to test the interview questions and practising observation. I gained authority from the King Fahd Academy (KFA) in London to conduct the pilot; KFA is not part of the main study. KFA is an independent International Baccalaureate (IB) World School, and has a complex structure of organization and hierarchy consisting of three sections: primary section, upper section, and diploma programme section; they do advance placement as acceleration strategies. Also, they have a specific department for special educational needs. I did an initial visit to KFA as an introduction, then I visited KFA later three times at the end of November 2015 to conduct the pilot. A long process of correspondence between the relevant authorities and me was needed to obtain the approval to visit KFA and was the only reason to determine the visit date. KFA was suitable for piloting for the following reasons. First, for reasons of time and cost, the location of KFA is in London, which would save the trouble of travelling abroad. Second, KFA is linked to the Saudi educational system in some ways, which was commensurate with Stage Two of the research to be conducted in Saudi Arabia. Third, the components of KFA are quite similar to those of any educational institution in Saudi Arabia with its policies, structures, curriculum etc. There are similarities between the participants in the pilot and the participants in the actual study; both participants had a leadership positions or have teaching experience in an academic field. Therefore, the responses given by participants are more likely to converge with the answers that would emerge in the actual study, in terms of the components of the educational institutions or teaching strategies.

Testing a research instrument is important to check its validity and to assess the possible issues and risks that could appear in the real application of the research. This testing would help the researcher confront problems that may require a change or refine the design of the research or its instruments (Cohen et al., 2007). Moreover, I conducted the pilot study in order to be familiar with the school's atmosphere and to ensure that the interview questions were easy to understand. In addition, I practised observation many times, over many rounds, by using the observation form, and

testing the fields in the form in terms of their necessity, which led to further refinements of the instrument.

### Piloting the interviews

Pilots were conducted with three employees at KFA, one teacher and two administrators. An information sheet was provided in advance in order to inform the participants of the purpose of the pilot study. They then signed the consent form for ethical purposes.

The question themes followed Clark and Zimmerman (2002). The interviews were conducted face to face in a quiet office at KFA. The duration of the interviews was between twenty and thirty minutes. Notes were taken during each interview. I asked the participants to comment on the content of the interview questions in terms of their clarity and simplicity. The feedback on the pilot testing guided for further improvement. For example, a question about financial allocation and expenditure has been raised after a conversation with the administrator in KFA and how they manage the expenses of the school. This thought on the expenditure of KFA led to the insertion of a question about funding of the school in Stage One questions, and sequentially in Stage Two, the proposed Saudi school. Therefore, the amendments improved the data collection. In another example, a question raised from the interview with a teacher in KFA in discussing further opinions in working with the most able students led to a rich conversation with P7 about teaching strategies; see section 5.8.2 ).

The following questions were developed and added to the interview questions after pilot testing.

- How is the school financed?  Where do you receive your budget? How do you manage it?
- Is there anything else you want to discuss about working with the most able students?
- In your opinion, what are the components of the special school for gifted students?
- What are the differences between your school and an ordinary school?

### Piloting the observation forms

The pilot study was conducted to practise the observation and to use forms that I designed in order to check validity and usability. There were two observation forms: one for observing the school and

the other for observing the classroom. The themes of the forms were derived from the recommendations of Clark and Zimmerman (2002). The school form consisted of the following components: the layout of school, facilities and amenities, school routine, resources, and a section for narrative notes. The classroom form contained the following components: classroom layout, capacity, activities, teaching strategies, curriculum, educational environment, facilities, resources, and student behaviour, and a section for narrative notes.

I did modifications of the form, changes in the design of the form, and the removal of irrelevant components; for example, the visitor section in the school form was deleted after round one, and some similar components were combined. Therefore, the sheet was designed to ease and facilitate the application of observation in the data collection phase in the US school.

For the classroom observation form, I attended two different teaching sessions and used the forms. The pilot led to some changes and refinement in the design of the form. For example, the form was shortened to two pages in order to be more convenient. In addition, some of the unusable sections were deleted, such as time and duration, and new components were added such as student behaviour and atmosphere; therefore, time was saved in the observation of the US school class and helped me to focus more on the component that I intended to investigate. Also, I added a section for narrative notes in order to capture any event that could help in answering my research questions; adding the note-making section allowed me to record unexpected events or actions during data collection in the USA.

## Summary of pilot study

| Activity | Number of Activities | Results |
|---|---|---|
| interview | three volunteers | added four questions |
| observation form: school | three rounds | deletions and additions in some components shortening the form |
| observation form: classroom | two attendances | deletions and additions in some components shortening the form |

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