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Case Study: Exploring Inservice Teachers' Perceptions and Experiences of the Effectiveness of Gifted Preparation and Training Programs in Saudi Arabia

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Citation

Case Study: Exploring Inservice Teachers' Perceptions and Experiences of the Effectiveness of
Gifted Preparation and Training Programs in Saudi Arabia

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Abstract

In Saudi Arabia, the teaching of gifted and talented students is relatively new, and research that describes the quality and effectiveness of teachers' gifted preparation programs and the training sessions they receive remain rather limited and inconsistent. **Purpose:** This dissertation focuses on understanding the perceptions and experiences of in-service teachers regarding gifted-focused preparation and training programs in the country. **Research Design:** Data were collected through observation and semi-structured interviews with teachers of gifted and talented students in the country. **Findings:** Analysis of the data revealed six themes related to teachers' perceptions and experiences of preparation and training programs in Saudi Arabia. These six themes are: the need for support and training, factors that affect teachers' participation, professional and personal growth, effective teaching skills, classroom management skills, a lack of systems and policies, accessibility issues, and lack of motivation. Although the MOE and Mawhiba Institute offer support and training opportunities for teachers of gifted students, the teachers clearly stated that these programs are still far from meeting their immediate needs. However, many teachers have a positive perception about the training sessions they received; their responses revealed that these sessions helped them develop their professional, personal, managerial, and teaching skills. The study also identified a lack of systems and policy, accessibility issues, and lack of motivation as challenges associated with gifted preparation and training programs. **Significance and Implications:** The study allowed teachers to voice their ideas, beliefs, and thoughts about gifted-related preparation and training programs in Saudi Arabia. The results also inform educational leaders, decision-makers, and gifted program directors about the quality and effectiveness of the efforts to improve teachers' knowledge and skills regarding giftedness and teaching gifted students in Saudi Arabia.

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Dedication

This dissertation is dedicated to my family and friends. Specially, to my beloved husband Dr. Waheeb Albiladi who has been always beside me, a good source of support and inspiration for me through all the ups and downs in my study journey. This dissertation is also dedicated to my lovely sweetheart daughters Thekra (10 yrs), Danah (6 yrs), Hibah (1 yr). You all are the biggest source of motivation and strength in my life. I love you to the moon and back. I also dedicate my hard work to my parents Khalid Alsharif and Nedaa Alharthi who truly love me, help, and pray for me every day to achieve my dream. Also, my only lovely sister, Mohjah, and my greatest brothers Mohaned, Mohammed, Mussab, and Musaed.

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Chapter I: Introduction and Overview

Background of the Study

Gifted education is a field that provides an understanding of gifted and talented students' learning, social, emotional, and educational needs. The importance of gifted education lies in creating appropriate opportunities for gifted and talented students to maintain and develop their exceptional abilities. Research into giftedness indicates that students have different abilities and capacities for learning (Davis & Rimm, 2011; Hebert, 2010; Sternberg & Davidson, 2005). Some students struggle with learning and need extra support to excel in the basic content, while others have exceptional capabilities that enable them to achieve significantly higher than the average student. Hebert (2010) mentioned that gifted education has evolved in response to the increased need to understand how students with exceptional capabilities should be taught and learned. Historically, this increased attention has spread all over the globe, and Saudi Arabia is no exception. In all cases, it is vital that teachers of the gifted have the skills, methods and support to assist this particular group of students.

Gifted education in Saudi Arabia

Education in Saudi Arabia has witnessed many changes in the last few decades. It has evolved at the direction and vision of the Ministry of Education (MOE). The MOE in the country control all types of education (e.g., public and private schools, higher education, technical education, and gifted education). During the last decade, the educational system in Saudi Arabia has witnessed huge growth as a result of reform movements led by educators who believe that equal and fair education should be provided to all students (Batterjee, 2013). These efforts led the central Government and the Ministry of Education (MOE) to improve and build quality

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education that meets all student's needs and provides equality and support for all teachers (Batterjee, 2013).

One educational field that received much attention recently is gifted education. In 1998, the MOE established King Abdul Aziz and his Companions' Foundation for Giftedness and Creativity (KACFGC) institution to develop and improve gifted education in Saudi Arabia. This program was then named "*Mawhiba*", an Arabic word which means giftedness. Aljughaiman and Ayoub (2017) tell us that the awareness of gifted education started to grow in the Kingdom of Saudi Arabia in 1998, through the gifted program (Mawhiba) which was geared toward identifying gifted students. Through *Mawhiba*, the MOE has worked to increase awareness among educators and the public about gifted education and the needs of gifted students. This includes establishing more specialized gifted programs for students, developing more advanced materials and resources regarding best practices to all schools, implementing more training sessions and workshops for teachers, and organizing activities to raise the public awareness of giftedness (Mawhiba, 2019).

Therefore, the research project described here focused on understanding the nature and perceived impact of gifted preparation programs (initial teacher education) and gifted training programs (in-service teacher development) provided for Saudi teachers who teach in gifted classrooms. Particularly, this study explored Saudi in-service teachers' perceptions and experiences regarding the training and professional development efforts offered by the MOE and Mawhiba organization. The goal of the study was to provide educators and decision makers with valuable information about how teachers perceive these efforts.

Statement of the Problem

As stated, gifted education and therefore teaching of gifted and talented students is relatively new in Saudi Arabia. However, research that reports the quality and the effectiveness of teachers' gifted preparation programs and the training sessions they receive remain rather limited and inconsistent. The MOE, represented in Mawhiba institutions, claimed that consistent and ongoing support is provided for teachers and administrators to ensure that gifted and talented students receive quality education that meets their needs and develops their abilities. This involves developing ongoing professional development and training opportunities for all teachers who work in such classrooms. These programs are designed to introduce, assist, and educate teachers about the important components of giftedness including understanding the psychological development of gifted children, social and emotional characteristics, and the development of these students (Aichouni, Touahmia, Al-Ghamdi, Ait-Messaoudene, Al-Hamali, Al-Ghonamy & Al-Badawi, 2015: Mawhiba, 2019).

However, researchers (e.g., Alamer, 2014; Al Qarni, 2010; Bushnak, 2007) have questioned the quality, relevance, and effectiveness of gifted preparation programs and teachers' training in the country. Al Qarni (2010) stated that that most gifted preparation and teacher training programs are not doing enough to prepare teachers to teach gifted and talented students. He states that "In Saudi Arabia, teachers who work in gifted programs do not have prior preparation in the care of gifted students, nor do they receive adequate in-service training, which qualifies them to work with gifted students" (p. 74). Similarly, Al Dalham (2018) summarized the current status of gifted education and gifted preparation programs in Saudi Arabia by saying "the field of gifted education is still at the beginning and needs several efforts in preparing GT

teachers, providing appropriate training programs, selecting effective GT teachers, and conducting more research in the area of GT teacher" (p. 117).

Since little is known and documented about how teachers in Saudi Arabia are prepared academically and professionally to identify and work with gifted and talented students, this study was poised to add useful information. In other words, there is a lack of research that discusses the quality and the effectiveness of the training and educational and professional support that teachers in Saudi Arabia receive to effectively and successfully work in gifted classrooms.

Purpose of the Study

Without professional preparation to teach gifted students, most teachers in public and private schools lack the knowledge, skills, and confidence needed to meet the needs of gifted and talented students (Alamer, 2014). There exists a dire need to understand what Saudi teachers need in terms of preparation programs, training efforts, and support to teach gifted and talented students in the most effective fashions. Hence, the purpose of this case study was to explore in-service Saudi teachers' perceptions and experiences regarding the quality and effectiveness of gifted teacher preparation programs. Moreover, this case study aimed to determine, according to Saudi teachers whether the professional development sessions that they attended helped in develop their understanding of giftedness and prepare them to productively teach in gifted classrooms. Also, the study explored teachers' perspectives about the degree of support they receive from school leaders or the Mawhiba institution regarding instruction for gifted students. The results of the case study should be used to better understand what teachers need in terms of knowledge, training, and professional development opportunities to be able to teach gifted and talented students in the most effective fashion.

Conceptual Framework

The conceptual framework of this case study was informed by the literature on the education of teachers of the gifted (Davis & Rimm, 2 011; Edinger, 2017; Karnes & Bean, 2014; Tirri, K. 2017; Reid & Horváthová, 2016). This body of literature guided the study to develop an understanding of teachers' perceptions regarding their experiences in teaching gifted and talented students. Tirri (2017) mentioned that research around teacher's education is significant because teachers are the essential key in identifying gifted students and nurturing their talent in school. Therefore, teacher education is the first step to creating desirable change in gifted education. The education of teachers of the gifted students involves exploring best practices that can be used with gifted population (Karnes & Bean, 2014); finding the best ways to identify gifted and talented students (Tirri, 2017); understanding the social, emotional, and academic needs of the gifted students (Davis & Rimm, 2011); and training teachers to respond to student needs and talents (Edinger, 2017; Reid & Horváthová, 2016). In terms of this research, the literature on the education of teachers of the gifted served as a framework to explore what in-service Saudi teachers need to work in gifted classrooms.

Significance of the Study

The review of literature about gifted education in Saudi Arabia indicated a substantial gap between policymakers' expectations and teachers' needs in terms of the training and support required to teach gifted and talented students successfully. Al Qarni (2010) pointed out that even though the MOE provides continuous support for gifted teachers, it seems that these efforts are not enough. Therefore, the significance of this research rests on providing valuable information about the quality and effectiveness of gifted preparation programs in Saudi Arabia. This research aimed to improve the understanding of whether gifted preparation programs and training sessions

improve Saudi teachers' knowledge and skills about giftedness, which can be reflected in their instructional practices. Specifically, the study allowed teachers to voice their ideas, beliefs, and thoughts about their educational, professional, and instructional needs in order to be able to effectively work in gifted classrooms. The results can inform educational leaders, decision-makers, and gifted program directors about the quality and effectiveness of the efforts directed toward improving teachers' knowledge and skills regarding giftedness. By targeting gifted and talented teachers in this research, the study offered a common basis to observe and bridge the gap between policymakers' expectations and teachers' needs, which would reinforce the effort to institute more fruitful gifted education reform. Finally, this study contributed to the relatively limited body of research surrounding gifted education, gifted teachers, and gifted preparation programs in Saudi Arabia.

Specific Research Questions

In line with research in the area of gifted education in Saudi Arabia and to better understand Saudi teachers' perceptions about gifted preparation and training programs, the following questions guided the study:

1. What are in-service teachers' perceptions and experiences regarding gifted preparation and training programs in Saudi Arabia?

2. What effect do gifted preparation and training programs have on teachers of gifted and talented students in Saudi Arabia?

3. What did teachers describe as challenges to their gifted preparation and training programs in Saudi Arabia?

Brief Overview of the Proposed Method

Because the study examined Saudi teachers' perceptions and experinces about gifted preparation and in service-training programs, a qualitative research methodology was employed in the study. Creswell (2016) pointed out that qualitative research methods allow researchers to gain rich and in-depth descriptions of the participants' opinions and motivations. Moreover, the study used case study design to provide in-depth and descriptive investigation of gifted training and preparation program in Saudi Arabia. This case study involved in-service teachers who teach gifted and talented students in public and private schools and gifted programs across the country. These teachers hold teaching license to teach in gifted classrooms by the Mawhiba organization after receiving training before and after they start working in gifted classrooms. The MOE and Mawhiba were contacted to grant me access to these teachers. Additionally, the teachers who involved in the study were teaching gifted and talented students at different school levels (i.e. elementary middle, and high school). The selected teachers were teaching gifted and talented students for more than two years to ensure that they have received training to work in gifted classrooms.

Moreover, two data collection approaches were used: observations of several professional development sessions and semi-structured interviews with teachers of the gifted. These observations addressed research goals relating to the understanding of the participants' perceptions and reactions to the professional development experience. The observations also allowed me to evaluate the content, format, and organization of the professional development activities provided for teachers of gifted students. The semi-structured interviews were conducted, and audio recorded using online-based applications such as Zoom and Teams. These interviews were guided by semi-structured protocols with open-ended questions about many

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aspects of the participants' experiences, including how they have been trained, their knowledge regarding giftedness, challenges they face when working in gifted classrooms, and types of support they might have or need to effectively teach gifted and talented students. Also, the teachers were asked about the evaluation process they go through as teachers in gifted classrooms. These questions helped further explore and reveal teachers' perspectives regarding the gifted preparation program and gifted in-service training programs. After collecting the necessary data, I started the coding process which included first and second cycle coding procedures. These codes were generated into categories and themes that answer each research question.

Assumptions

This research consisted of three assumptions. First, the study relied on the participants' perceptions. Therefore, it was assumed that the participants would give honest responses to all the questions regarding the gifted preparation programs and the training they receive to work with gifted and talented students. Second, it was assumed that all the participants were teaching gifted and talented students in public or private schools or gifted programs in Saudi Arabia. Third, it was assumed that the teachers in this research have participated in one or more gifted preparation programs or have received training to work with gifted and talented students.

Limits on Generalizability

The study focused on understanding the perceptions of Saudi teachers regarding gifted preparation and training programs in Saudi Arabia. Hence, the sample were limited to licensed teachers who are working in gifted programs or teaching gifted students in public or private schools in Saudi Arabia. This small sample size and the qualitative nature of this data limited the generalization of the findings even in the Saudi context, but this was a national study in terms of

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the recruitment of subjects. Furthermore, the data were collected through interviews and observation. Using interviews as a data collection method had some limitations. To illustrate, the participants might withhold information, refuse to answer some questions, or exaggerate their personal experiences. In other words, interviews represent perceptual data which may not provide a complete portrayal of the real event.

Delimitations regarding Nature of Project

The case study included some delimitations. First, the scope of the research was limited to a sample of convenience: teachers who were teaching gifted students in public and private schools in Saudi Arabia and available to participate. Moreover, because of the distance and travel concerns, I was not able to interview the participants in person. The interviews were conducted using online communication platforms such as Zoom and Teams. Using online platforms for qualitative interviews limited the interactions between the researchers and the participants as a result of the absence of body language or nonverbal cues (Hay-Gibson, 2009).

Summary

Gifted education is a relatively new field in Saudi Arabia. In recent years, more emphasis has been placed on providing gifted and talented students with the support they need to develop their abilities. Teachers of the gifted have been at the center of these efforts. However, many educators believe that teachers of gifted students are not sufficiently prepared to understand the needs of gifted students and respond to these needs. There is a substantial need for developing a greater understanding of what in-service Saudi teachers need in terms of training and support to teach gifted students in the most effective fashion, and to understand and discuss the quality and effectiveness of the training and educational and professional support that teachers in Saudi Arabia receive before and after working in gifted classrooms. This case study research was a

response to this need. To achieve this goal, the study included licensed in-service teachers of

gifted students who participated in a semi-structured interview designed to explore their

perceptions about gifted training programs in the country. The following literature discusses

gifted education in general, the characteristics of gifted and talented students, teachers of the

gifted, and provide an extensive overview of gifted education in Saudi Arabia.

Chapter II: Review of The Literature

Introduction and Overview

In the last few decades, awareness of gifted education has grown in the Kingdom of Saudi Arabia. Since 1998, the Ministry of Education (MOE) has devoted more attention on gifted and talented students to provide them with programs that fit their academic, social, and emotional needs (Aljughaiman et al., 2015). Some efforts were geared toward teachers to better equip them with necessary knowledge and skills to meet the needs of all students. More training sessions, workshops, and professional development opportunities were provided to improve teachers' abilities to effectively work with gifted and talented students (Alreshidi, 2017). However, many researchers (e.g., Alamer, 2014; Alamiri, 2020; Aljughaiman, 2015; Al–Zoubi & Rahman, 2015) noted that teachers in Saudi Arabia are not professionally prepared to teach gifted students in the most effective fashion. Alamer (2014) writes that "many gifted students are taught in regular classrooms by teachers who are either untrained or unknowledgeable about their needs" (p. 110).

This research study emerged in response to this need. Its purpose was to explore in-service Saudi teachers' perceptions and experiences regarding the quality and effectiveness of gifted teacher preparation programs. Moreover, the case study aimed to determine whether the professional development sessions that Saudi teachers attend increase their understanding of giftedness and prepare them to productively teach in gifted classrooms. Also, the study explored teachers' perspectives about the degree of support they receive from school leaders and the MOE regarding teaching instruction for gifted students. The study results can be used to better understand what teachers truly need in terms of knowledge, training, professional development

opportunities, and support to teach gifted and talented students in the most effective fashion. To achieve these research objectives, the following questions guided the study:

1. What are in-service teachers' perceptions and experiences regarding gifted preparation and training programs in Saudi Arabia?

2. What effect do gifted preparation and training programs have on teachers of gifted and talented students in Saudi Arabia?

3. What did teachers describe as challenges to their gifted preparation and training programs in Saudi Arabia?

Therefore, this chapter explores the literature relevant to understanding the research on gifted preparation programs and gifted training in Saudi Arabia. The review is divided into three sections. The first section provides an overview of the research on gifted education. This includes defining gifted and talented students and discussing their social, emotional, and academic characteristics and needs. The second section highlights the research on teachers of gifted and talented students. It includes a discussion about the characteristics of effective teaching of gifted students and the role of teachers in identifying and responding to learners' various needs. It also involves an overview of effective practices to prepare and train teachers to work with gifted and talented students. The third section discusses the research related to gifted education and teaching of gifted students in Saudi Arabia. It provides a background on gifted education in Saudi Arabia and describes the literature gap regarding teacher gifted preparation and training programs. Figure 1 represents the literature map used in this chapter:
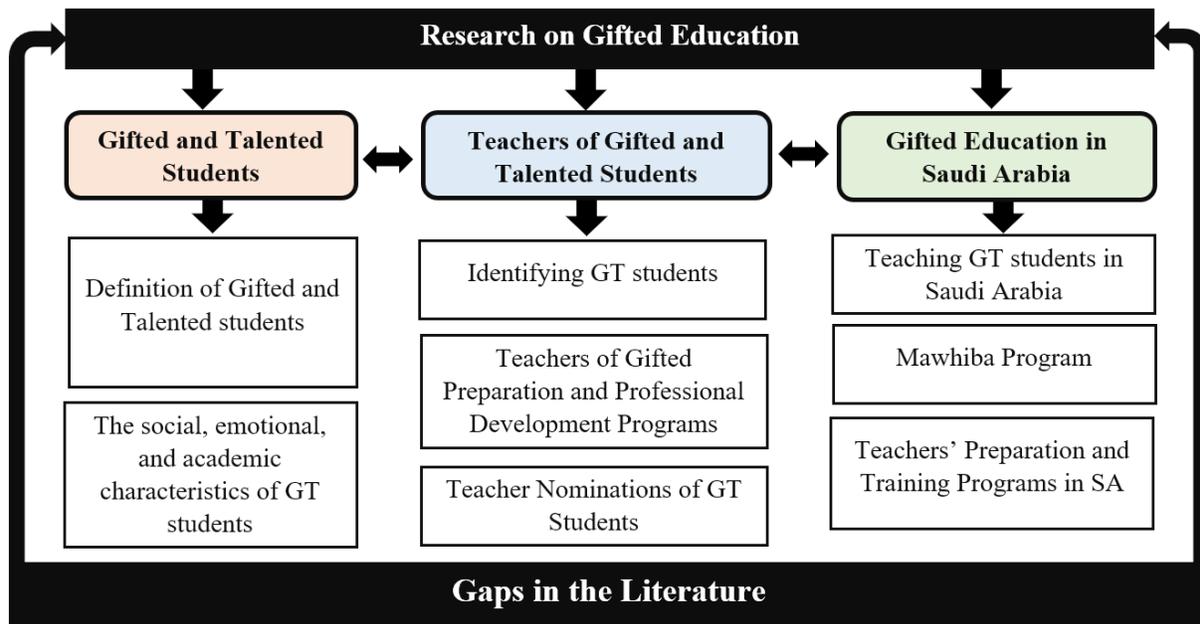
Figure 1. The study literature map

Gifted and Talented Students

To understand the various needs of gifted and talented students, it is important to identify and define who these students are. The National Association of Gifted Children (NAGC) reminds us that by defining giftedness and gifted students, we have a better chance of understanding the complex nature of giftedness and providing students with gifts and talents with the appropriate education they need. Many researchers (e.g., Davis & Rimm, 2011; Hebert, 2010; George, 2013; Sternberg & Davidson, 2005) have contributed to our understanding of gifted and talented students by providing descriptions and definitions of this special population. These descriptions lead researchers, teachers, and practitioners interested in gifted education to increase their understanding of gifted students' characteristics and their different needs in the classroom.

George (2013) tells us that gifted education is a field that provides an understanding of the nature and needs of gifted and talented students. George adds that gifted education aims to

identify and meet the learning, social, emotional, and educational needs of these students. Many recent studies indicate that students have different abilities and capacities for learning (Davis & Rimm, 2011; Hebert, 2010; George, 2013; Sternberg & Davidson, 2005). Some of these students struggle with learning and require extra support to excel with basic content, while others have exceptional capabilities that enable them to gain significantly higher achievement than the average student. Students with these kinds of exceptional abilities are described as gifted and talented students (Sternberg & Davidson, 2005). Some researchers, such as Gagne (2004), make a distinction between giftedness and special talents that some students might possess. He defines gifted students as "those whose potential is distinctly above average in one or more of the following domains of human ability: intellectual, creative, social and physical" (p.36). Gagne adds that "talented students are those whose skills are distinctly above average in one or more areas of human performance" (p.63).

However, other researchers (Davis & Rimm, 2011; Hébert, 2010) point out that there is no distinction between gifted and talented, and these two terms are used with students who are above average in both human ability and performance; this is the definition used in this research proposal. Davis and Rimm (2011) indicate that gifted and talented students are those who perform at higher levels in academic or creative fields compared to their peers. Hébert (2010) states that gifted and talented students tend to be those who have highly abstract and logical thinking skills, excellent memory, creative minds, and advanced leadership skills.

Perhaps one of the most comprehensive descriptions of gifted and talented students was provided by the National Association for Gifted Children (NAGC), which describes gifted and talented students as those who come from different racial, cultural, ethnic backgrounds, and

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socio-economic levels and "perform or have the capability to perform at higher levels compared to others of the same age, experience, and environment in one or more domains" (p. 1).

Special Needs and Characteristics of Gifted and Talented Students

For many researchers (e.g., Davis & Rimm, 2011; George, 2013; Hebert, 2010; Johnsen, 2018), understanding the characteristics of gifted students helps teachers offer appropriate educational services for these students to meet their various needs. It also leads to an improved gifted learning environment and develops identification procedures directed to the gifted population. George (2013) tells us that gifted and talented students have social, emotional, and academic needs that distinguish them from other students, and the first step in serving gifted and talented students is to understand their different social and learning qualities and needs.

Research (Davis & Rimm, 2011; Hebert, 2010; Johnsen, 2018) shows that gifted and talented students usually demonstrate a higher level of perfectionism, internal motivation, empathy, resilience, self-actualization, and a highly developed sense of humor. According to the National Association for Gifted Children (NAGC), it is common for gifted and talented students to be perfectionists. Perfectionism refers to the need to excel and reach high levels of mastery of a project or assignment (Johnsen, 2018). However, NAGC warns that perfectionism can become a problem when it causes stress, pain, procrastination, and underachievement and encourages teachers to find ways to develop the positive aspects of perfectionism in gifted students. The second characteristic of gifted and talented students is internal motivation. This refers to the ability to maintain focus on goals regardless of the difficulties they may have in their lives (Johnsen, 2018). As Hebert (2010) mentions, internal motivation or "internal will" shapes the identity of gifted students. That is, internal motivation leads gifted students to improve their academic achievement, overcome learning and non-learning hurdles, and maintain their focus.

Furthermore, gifted and talented students have a high level of empathy. Hebert defines empathy in gifted students as the practice of understanding another person's situation from his or her point of view. Empathy leads gifted and talented students to go beyond their talent and find creative solutions for many issues. Fourthly, self-actualization was mentioned as one of the characteristics of gifted students in George's (2013) work. According to George (2013), self-actualization refers to the process of shaping and understanding what students are capable of doing. Hebert (2010) also highlights the relationship between self-actualization and other fundamental qualities such as self-confidence and self-esteem.

In addition to self-actualization and empathy, gifted students might have a highly developed sense of humor (Johnsen, 2018). A sense of humor enables students to deal with stress since they can use humor in stressful situations. In his research, Janus (1975) discovered that there is a relationship between giftedness and humor, and many comedians who were gifted in one or more areas scored highly in other areas. Finally, Neihart (2002) indicated that resilience is another important trait of gifted and talented students. Resilience can be defined as "the ability to achieve emotional health and social competence in spite of a history of adversity and stress" (p. 115). In a research study, Reis, Colbert, and Hébert (2004) examined the factors that led 35 high-achieving students in an urban high school to excel and be gifted in different areas. The results of the study indicated that resilience was one of the factors that helped the academically talented students to achieve at high levels. Many high-achieving students showed signs of resilience by overcoming all the problems associated with their families, schools, and community. This resilience also helped them to be successful learners despite the social issues they encountered such as poverty, violence, and family turmoil.

Gifted and talented students also need to receive and be provided with classroom tasks that meet their academic needs (NAGC). Most of the gifted students might not fully realize their potential until they are challenged to finish a task. That is why classrooms should be environments that challenge students' thinking and allow them to engage in challenging problem-solving activities (Davis & Rimm, 2011). Also, Goodhew (2009) mentions that gifted and talented students differ in their learning styles and preferences, and that leads teachers to struggle with finding and developing a curriculum that promotes learning opportunities for them. In other words, gifted students have different abilities and capacities for learning. Some students prefer to work independently, while others prefer cooperative learning. Also, gifted students might differ in their acceptance of visual, auditory, or social learning (Johnsen, 2018).

One of the most comprehensive perspectives that enriches our knowledge of the social and emotional development of gifted individuals is Dabrowski's Overexcitabilities theory (Mendaglio, 2008). This theory explains the richness of physical, sensual, creative, intellectual, and emotional energy that a gifted individual might have. Dabrowski identified five different areas of intensity in advanced and gifted learners: psychomotor, sensual, intellectual, imaginational, and emotional abilities. According to Dabrowski, a person may possess one or more of these, and each one has forms and expressions that distinguish it from other abilities (Mendaglio, 2008). The following table illustrates some of these forms and expressions (Hebert, 2010, p. 18-19).

Table 1. *Forms and Expressions of Overexcitability*

Psychomotor	
• Surplus of Energy	• Psychomotor expression of emotional tension
• Rapid speech	• Compulsive talking and chattering
• Marked excitation	• Impulsive action
• Intense physical activities	• Nervous habits
• Pressure for action	• Acting out
• Mark competitiveness	

Sensual

- Enhanced sensory and aesthetic pleasure
- Sensual expression of emotional tension
- Seeing, smelling, tasting, hearing; delight in beautiful objects, sounds of words
- Overrating, self-pampering, wanting to be in the limelight
-

Imaginational

- Free play of imagination
- Frequent use of image and metaphor, facility for invention and fantasy
- Predilection for magic and fairy tales, creation of private world
- Animistic imagery, mixing truth and fiction, illusions
- Low tolerance for boredom

Intellectual

- Thirst for knowledge, curiosity, concentration, capacity for sustained intellectual effort
- Thinking about thinking, love of theory and analysis, moral t6hinking, introspection, conceptual and intuitive integration
- Search for truth and understanding, forming new concepts, tenacity in problem solving
- Penchant for probing questions and problem solving

Emotional

- Feeling and emotion intensified
- Strong somatic expression
- Strong affective expressions
- Capacity for attachments and deep relationship
- Positive feeling, negative feeling, extremes emotions, complex emotion and feelings
- Inhibition, timidity, shyness, enthusiasm, pride, strong effective memory
- Strong attachment ties to persons, living things, and animals; sensitivity in relationship

In addition, several research studies have examined the characteristics of gifted and advanced learners through different lenses. For instance, in a recent study, Gralewski (2019) interviewed teachers of gifted and talented students to explore their perspectives about the

characteristics and gender differences of gifted and creative students. The study involved 15

secondary school teachers who provided their descriptions of gifted and creative students. The

teachers mentioned that a creative and gifted individual can be distinguished by their artistic

ability, intelligence, and their performance in school. The teachers also described creative male

students differently than creative female students. To illustrate, creative male students are

courageous, independent individuals who are willing to take risks and are confident in their

abilities. Creative female students, on the other hand, are more systematic, well-behaved,

persistent, calm, and organized. Gralewski pointed out that teachers must be aware of the

different traits that creative students possess to be able to respond to their social, emotional, and

academic needs.

In terms of the Saudi Arabian context, the Ministry of Education (MOE) and the Mawhiba

Institution have identified several characteristics of gifted and talented students in Saudi schools

(Mawhiba, 2020). According to Mawhiba (2020), these characteristics are used to identify and

refer gifted and talented students to gifted programs in schools across the nation. These

characteristics include higher levels of:

- Comprehension skills and the ability to process ideas information quickly.

- Creativity and innovation.

- Memory capacity, focus, and observation accuracy.

- Leadership and decision-making abilities.

- Adaptability and boredom with routine and determination.

- Social and communications abilities.

- Curiosity and adventurous spirit.

- Independence in thinking and taking action.

Teachers of Gifted and Talented Students

Research has shown that teachers play a critical role in the development and preparation of gifted populations (Bangel, et al., 2010; Rowley, 2012). In the research, more emphasis is placed on the importance of understanding what teachers need to know and understand to teach gifted students. A thorough understanding of the characteristics of teachers who work with gifted students will result in a better understanding of effective and successful interactions for gifted and advanced students (Rowley, 2012). The characteristics of effective teachers refer to the abilities or skills that teachers need to acquire to respond to the needs of gifted and advanced learners (Bangel, et al. 2010)

Katerina, et al. (2010) point out that teachers of gifted students are the foundation of a successful educational process for these students. For many researchers (e.g., Bangel, et al. 2010; Rowley, 2012) a gifted teacher must possess many scientific and personal qualities that qualify them to teach gifted people and develop their talents. In other words, for a teacher to provide appropriate care for gifted students, they must have sufficient experience, capabilities, and educational skills.

For instance, some researchers (e.g., Ford, 2011) emphasize the necessity for teachers of gifted to possess skills such as flexibility, multicultural awareness of gifted education, and the ability to interact positively with students. Others (e.g. Gentry et al., 2011) place more emphasis on teachers' social and instructional skills, such as taking a genuine interest in their students, building strong relationships with them, providing an inspiring learning environment, and having a passion for their education. A qualified teacher provides care, equal educational opportunities, and appropriate resources to their gifted students (Van-Baska-Tassel & Johnsen, 2007).

Furthermore, Bangel and colleagues (2010) mention that gifted and talented students need teachers who are specialized and professionally trained to provide instruction that develops gifted students' education, supports their creative ideas, and motivates them to innovate. Also, teachers of the gifted need the experience to distinguish gifted students and identify their strengths and weaknesses (Rowley, 2012). Lassig (2015) highlights the link between teachers' attitudes and beliefs toward gifted students and the training they receive in gifted education. In a study which included 126 Australian primary school teachers, Lassig found that classroom teachers have a direct impact on gifted students' learning and that teacher training improves the development of gifted students. That is why teacher training should be at the center of gifted and talented education reform (Lassig, 2015).

Tassel Van-Baska and Johnsen (2007) conducted a study to identify the national standards that must be met by teachers of gifted students. They found many, including the ability to consider and understand individual differences, apply responsive and differentiated teaching strategies, and use good planning and appropriate evaluation methods. The study concluded by emphasizing the dire need to train teachers of gifted students to increase their efficiency and understanding of giftedness.

In the Saudi Arabian context, Al-Dalham (2018) conducted a study to identify the characteristics of effective gifted teachers from the perspective of Saudi teachers. Specifically, the study aimed to explore teachers' perceptions about what characteristics teachers need to succeed as a teacher of gifted students. The study included 220 teachers from two regions of Saudi Arabia: Riyadh and Asir. The researcher surveyed the selected teachers and asked them for their opinions on different aspects of effective gifted teachers such as: their teaching strategies, learning needs, and knowledge of gifted students. The teachers reported several effective traits

that positively impact the teaching of gifted students. These include being knowledgeable about giftedness, understanding gifted students' interests, providing engaging and challenging activities, encouraging imagination in gifted students and their learning, and being a professional in their field. The researcher concluded by stating that this examination of teachers' perceptions would help facilitate the design of teacher training programs for GT teachers in Saudi Arabia.

The Role of Teachers in Teaching Gifted and Talented Students

Much research has been done to understand the importance of identifying gifted and talented students. Some researchers have focused on the identification procedures (e.g., Assouline & Lupkowski-Shoplik, 2012; Sternberg & Davidson, 2005), while others (e.g., Siegle et al., 2010) studied the issues involved in the identification process. In fact, there is a consensus among many researchers that many identification factors help identify students with exceptional and above-average abilities. These factors include students' performance in different standardized and informal assessments, behavioral indicators, teacher nominations (Hernández et al., 2013; Siegle et al., 2010), and intelligence and creativity assessments (Rothenbusch et al., 2016). These factors can determine whether a student is gifted and needs special learning practices.

Teacher Nominations as an Identification Instrument

It has been suggested that classrooms are the ideal environment to identify, observe, and meet the needs of gifted and talented students (Hernández et al., 2013; Sternberg & Davidson, 2005). Teachers play a significant role in identifying gifted and talented students and understanding their abilities. Teacher nominations are very effective and common ways of understanding gifted students and reliably identifying them for gifted programs (Assouline & Lupkowski-Shoplik, 2012). Davis and Rimm (2011) mention that because teachers are able to

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observe students in different situations and under different conditions, their nominations are frequently used to identify gifted and talented students. However, several research studies have indicated that certain characteristics influence teachers' decisions to refer students to gifted programs. This includes demographic characteristics of students such as their gender and grade level (Siegle et al., 2010) and intellectual and cognitive abilities such as intelligence and creative thinking.

In a study, Siegle et al. (2010) examined the factors that influence teachers' perspectives when considering students for gifted and talented programs. The study involved 90 preservice and 95 in-service teachers who were asked to indicate which students should or should not be recommended for their district's gifted program. The study findings revealed that students' gender, age, interests, academic areas of excellence, socioeconomic status, and personality traits directly impact teachers' perceptions of students as gifted. To illustrate, Siegle et al. (2010) mentioned that teachers might be affected by students' gender, as they interact differently with male and female students in the classroom. Teachers also tend to judge a student's ability in relation to his/her age or relative precocity. The study has documented the effect of a student's personality traits in teacher nominations for gifted programming. Teachers usually prefer to deal with students who exhibit certain personal skills such as leadership and intelligence. Finally, teachers were less likely to nominate students from a lower socioeconomic status.

In more recent study, Hernández et al. (2013) investigated the characteristics that lead teachers to nominate gifted and talented students for gifted programs in Spain. The study aimed to understand whether demographic characteristics (i.e., gender, grade) and psychological traits (i.e., intelligence, critical thinking skills) impacted teachers' decisions to label and refer more than 563 secondary students to gifted programs. The teachers were surveyed to understand the

factors that led them to nominate the students. The results indicated that students with higher

scores in intelligence, cognitive, and thinking examinations were usually labeled as gifted

students. Also, the teachers were more likely to nominate students with highly developed social

and verbal skills and students who can express themselves socially in classrooms. However, it

was reported that gender and grade have no significant influence in teachers' nominations of

gifted students. The researchers concluded by stating that teachers should not be restricted to

certain factors when nominating gifted students and must include other sources of information

(i.e., parents, peers, self, judges) to understand students and their talents.

A study by Endepohls-Ulpe and Ruf (2006) discussed the characteristics that lead

teachers to judge a child as 'gifted'. The study was undertaken to examine 192 German teachers'

perspectives and beliefs about what academic and social qualities lead students to be labeled as

gifted. The teachers were asked to describe a gifted child in their own words, and their

descriptions were analyzed. The findings revealed that most teachers relied on achievement

scores and cognitive and intellectual abilities as indicators of giftedness among their students.

Also, the teachers emphasized motivation as an important factor that led students to be labeled as

gifted. The researchers reported that children with low achievement scores were usually

overlooked as gifted students. The researchers raised concerns about teachers' preferences that

overlooked gifted underachievers. The researchers believed that all students should have an

equal opportunity to understand their gift and develop their talents.

Finally, Mingle (2016) mentioned that teachers' perceptions of giftedness and their

nomination decisions play a major role in identifying gifted students for appropriate gifted

programs. However, Mingle noted that for a teacher's nomination decisions to be valid or

reliable, the teacher must be equipped with knowledge and understanding of the characteristics

that distinguish gifted and talented students. In a qualitative case study, Mingle investigated teachers' decision-making processes when nominating gifted students to participate in gifted programs. The data were collected through a survey, observation, and interviews with 20 (Grades 5 and 6) teachers in an intermediate school in New Jersey. The findings indicated that the definition and understanding of giftedness play a key role in nomination decisions but varied among teachers. Other factors that drove the nomination process were teachers' personal and professional experiences with gifted and talented students. However, Mingle concluded that it is important to provide teachers with pedagogical, instructional, and administrative support to broaden their understanding of giftedness and allow them to recognize and support gifted and talented students.

Teachers of Gifted Preparation and Professional Development Programs

Professional development (PD) is the approach used by schools, school districts, and training institutions to help educators to improve their understanding, learning, and their support their career growth (Ketelhut et al., 2020). Dagen and Bean (2014) define professional development as "experiences that take place within a collaborative culture of shared leadership, that increase educators' knowledge about content and pedagogy and enable them to use that knowledge to improve classroom and school practices that improve student learning" (p. 44). Vermut (2014) reminds us that professional development provides in-service teachers and practitioners with opportunities to achieve stronger knowledge and skills to enhance their teaching practices in the classroom, which significantly impacts student learning outcomes.

Professional development plays a critical role in preparing teachers to effectively work with gifted and advanced learners (Vermut, 2014). Peterson and Lorimer (2012) note that professional development is one of the most effective ways to equip teachers with knowledge

and skills to understand advanced learners' characteristics and better respond to their needs. Teacher preparation and training programs are an important element for educators who will work for teaching gifted students (Lassig, 2015). For teachers to be able to educate the gifted population, they should have a certain set of personal characteristics and the necessary professional abilities, and preparation and training programs can highlight and develop these from a theoretical and practical perspective (Reid & Horváthová, 2016).

Bain et al. (2003) propose a framework for gifted preparation and professional development programs for teachers. According to Bain and colleagues, such programs should include three important elements: (1) the theoretical foundation for teaching the gifted, (2) creative thinking skills, (3) and the mechanism of using enrichment programs. These elements will increase teachers' understanding of the theoretical foundation of giftedness and prepare them practically to teach gifted and talented students. Similarly, Vermut (2014) highlights two important components that should be present for effective professional development for gifted education. These include scientific or theoretical knowledge of the gifted, which involves an understanding of giftedness, identification of gifted students, and their social-emotional development. The second element is involving pedagogical aspects of teaching, such as providing teachers with an instructional foundation that enables them to use different teaching strategies, differentiated curriculum, and creative practice.

In an effort to develop enhance gifted preparation programs, the National Association for Gifted Children (NAGC), in collaboration with The World Council for the Gifted (CEC) and the National Association for People with Special Needs, developed a framework for teacher preparation and training programs in gifted and talented education. These efforts resulted in a national standard and a set of knowledge and skills that should be available in all programs to

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prepare teachers to work effectively in gifted classrooms. According to the NAGC standards of gifted preparation, to ensure gifted students success teachers should be trained in 1) learner development and individual learning differences, 2) learning environments, 3) curricular content knowledge, 4) assessment, 5) instructional planning and strategies, 6) professional learning and ethical practice, and 7) collaboration (NAGC, 2013).

To begin with, the learner development and individual learning differences standard reflects teachers' understanding and appreciation of individual differences among learners and its impact on their learning process. It reflects the importance of recognizing and differentiating classrooms instruction based on the students' language, culture, economic status, backgrounds, interests, and learning styles. Second, the learning environments standard emphasizes the importance of establishing safe, welcoming, inclusive, and culturally responsive environments for all students, regardless of their social, cultural, and linguistic differences. Third, the curricular content knowledge standard is related to having professional development that focuses on increasing teachers' knowledge and ability to design creative, complex, and challenging curriculum. It also reflects the importance of training teachers to create appropriate learning and performance modifications to respond to learners' various needs and advance learning for students with gifts and talents. Fourth, standard 4 focuses on assessment, which can be used to identify gifted and talented students or evaluate their learning progress. Professional development should concentrate on training teachers to use multiple data sources to assess students' exceptional abilities and skills. The fifth standard, gifted education professionals, helps teachers select, adopt, and use evidence-based, differentiated, and accelerated instructional strategies to address individuals' differences and advance learning for gifted and talented students. Teachers of the gifted should use teaching strategies and classroom tasks that enhance

learners' critical and creative thinking and problem-solving skills. Sixth, professional learning and ethical practice standards reflect teachers' knowledge of professional and ethical principles and K-12 national gifted education standards. Finally, the collaboration standard promotes the formation of collaborative learning communities in which students can interact, share, and work collaboratively with each other. It also allows teachers to build a learning community beyond the school that includes teachers, families, and society.

Furthermore, one of the issues that usually arise in gifted education globally is the quality of the training and professional development provided for in-service teachers of gifted students. Many countries around the world experience a lack of training and PD opportunities for teachers in gifted education (Cannaday, 2018). This includes lack of training opportunities in identification of gifted students, differentiated instruction for advanced learners, and instructional practices. As a result, several research studies (e.g., Gourgiotou et al., 2019; Peterson & Lorimer, 2012; Sayi, 2018) have examined the effectiveness and quality of professional development and training sessions on teachers' experiences in gifted classrooms.

For instance, Cannaday (2018) mentions that in the United States there is a lack of sustainable and training for teachers in gifted education. As an example, according to NAGC, only 15 states have regular training and professional development opportunities for teachers who work with gifted and talented students. Also, only 19 states require teachers to have educational credentials or certifications to teach in gifted education classrooms. Moreover, Peterson and Lorimer (2012) conducted a study in which they examined teachers' perceptions regarding the implementation of new curriculum designed to respond the social and emotional needs of gifted students. The study found that that professional development and in-service training improves teachers' self-confidence and self-efficacy in teaching new and unfamiliar curricula. The

teachers had a positive perception of implementing the new curriculum as a result of the training they receive.

In another study, Sayi (2018) explored teachers' perspectives about the effectiveness, strengths, and limitations of the training they receive on gifted education in Turkey. The study involved 71 teachers who completed a questionnaire to measure their perceptions about the functioning of these training programs and their impact on their teaching practice and student success. The results revealed that in-service training increased teachers' knowledge and experience of gifted and talented students' needs and how to respond to them. The training also increased teachers' self-confidence in implementing more creative and challenging tasks. The study also revealed several factors that increase the effectiveness of the training sessions. These include (1) having training that focuses on the characteristics and needs of gifted and talented students, (2) having qualified and pedagogically experienced instructors, and (3) having clear and easy-to-follow courses with effective assessment tools. However, the participants mentioned that the length of the training sessions, lack of feedback, and the lack of the application opportunities were the biggest drawbacks of the programs. The researcher recommend that gifted and talented programs should be longer and offer more professional development opportunities for the teachers to overcome all their misunderstandings and misconceptions about gifted populations.

Similarly, Gourgiotou et al. (2019) designed an eight-month training program to meet K-6th-grade teachers' learning needs regarding gifted education in a school district in Greece. The study involved 47 teachers, two trainers, and one education consultant. The study evaluated the results of the in-service teachers' professional development program on gifted and talented children's education and its impact on the participants teaching practices. The results showed

that teachers successfully combined gifted education theory into their teaching methods as a result of the training and professional development sessions. Also, the researchers highlighted the massive need for teachers in gifted classrooms to have more training opportunities on giftedness and the development of gifted and talented students.

Ultimately, preparing teachers to work and succeed in gifted classrooms is the first step toward having effective education that responds to the needs of gifted and talented students (NAGC; Vermut, 2014). When we provide teachers with training and support through ongoing professional development about giftedness, we have a better chance at giving gifted and advanced learners the education they need (Gourgiotou et al., 2019). As Cannaday (2018, p. 11) stated:

> Schooling can be a difficult experience for gifted students when teachers and mental health professionals are untrained… The more professionals and others educate themselves about the characteristics of the gifted, the more gifted children and adults will be able to live fulfilling lives.

Gifted Education and Gifted Students in Saudi Arabia

Introduction and Historical Overview

In the last few decades, public and private education in Saudi Arabia has witnessed huge growth. The Ministry of Education (MOE), which is responsible for all types of education including public schools and private schools, higher education, and gifted programming, has worked to improve and build quality education that meets every student's needs and to provide equality and support for all teachers (Batterjee, 2013). One educational field that has risen to the fore in the last 20 years is gifted education (Algarni, 2016). The Ministry of Education has approved a definition of gifted and talented students in the country. It was developed by the King Abdulaziz City for Science and Technology in 1418 AH and approved by the Ministry of Education in the Kingdom. Gifted and talented students are known as students who have

exceptional skills and abilities or perform higher compared to their peers in one or more areas such as mental excellence, innovative thinking, educational achievement, special skills and abilities. These students, according to the definition, need special education programs to develop their abilities and skills.

Gifted Education is a relatively new field in the kingdom. Until recently, gifted and talented students did not receive any type of education that met their abilities and skills (Aljughaiman, 2015). However, at the beginning of the new decade, more efforts were directed toward the identification and education of gifted students. Alamiri (2020) has summarized the development of gifted education is Saudi Arabia as seven important historical movements. To begin, between 1989 and 1995, there were some efforts to establish national programs to identify and nurture gifted and talented students in public schools in some parts of the country. These efforts were led by the Ministry of Education along with districts and schools in different regions. In 1999, these efforts led to the establishment of King Abdul-Aziz and his Companions Foundation for Giftedness and Creativity program. The idea behind this national program was to make official the effort to provide gifted and talented students with the education they need to develop their abilities. In 2002, different school enrichment initiatives were implemented, such as the pull-out enrichment and acceleration programs directed toward serving gifted and talented students in public and private schools nationwide.

Also in 2002, the Ministry of Education, with the corporation of the Department of Education in Jeddah, the second-largest city in the country, launched Al-Faisalyah School, the first school in the country fully committed to serving gifted and talented students. This school includes elementary, intermediate, and high schools. Starting in 2013, gifted programs in the country started to adopt the "Whole-Grade Skipping" for academically identify gifted and

talented students and use it for academic acceleration. Sixth, the country witnessed the establishment of the "Attracting and Nurturing Gifted Youth" program, which focused on bridging the gap between public and higher education in the country. The program was developed by the University of Jeddah to enable researchers, educators, and practitioners from various universities to contribute to the teaching of gifted students in public and private schools. This included sharing their research findings and implementing new teaching and learning strategies designed for gifted and talented students. Finally, in 2018, the Ministry of Education launched gifted classes in almost every public school. These classes are now available in most public schools in both rural and urban areas (Alamiri, 2020; Aljughaiman, 2015).

Aljughaiman et al. (2015) pointed out that awareness about gifted education started to grow in the Kingdom of Saudi Arabia in 1998, through programs geared toward identifying gifted students. The King Abdul Aziz and his Companions' Foundation for Giftedness and Creativity (KACFGC) was established as a part of the effort led by the MOE to develop and improve gifted education in Saudi Arabia. The Foundation is a national non-profit organization that aims to discover and support talented and creative people in all fields (Aljughaiman et al., 2015). One of the most significant contributions of the KACFG has been its establishment of the Mawhiba institution for gifted learners in 1999. This organization is now responsible for all types of education and efforts provided for gifted and talented students across the nation.

The Mawhiba Institution and Teaching of Gifted Students in Saudi Arabia

Mawhiba is a national institution led by KACFG that aims to develop learners' talents and creativity and to provide academic, social, and instructional support to ensure effective education of gifted students in Saudi Arabia (Batterjee, 2013). This organization is designed to ensure that all gifted and talented students can be educated in an ideal environment that

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encourages and develops their abilities (Mawhiba, 2019). The institution also plays a major role in educating parents, teachers, and the public about the characteristics and social and academic needs of gifted and talented students (Batterjee, 2013). According to Aichouni et al., (2015), Mawhiba aims to support the needs of gifted students in the country by (1) supporting national capacity in the production of innovative ideas, (2) providing financial support for gifted programs to enable students to develop their talents and abilities, (3) providing support and care for gifted and creative people and their families to help them overcome difficulties that limit the growth of their abilities and talents, and (4) providing an interactive educational environment to develop the abilities of gifted and creative children (Aichouni et al., 2015).

Mawhiba offers many programs for gifted and talented students and teachers of gifted students all year round. Some of these programs focus on finding ways to identify gifted and talented students across the nation, while others cover the practices employed in the education of the students. These programs are The National Program for Gifted Identification, the Mawhiba Academic Enrichment Program, the Mawhiba Research Enrichment Program, the Mawhiba Universal Enrichment Program, and the Mawhiba Skills Enrichment Program (Mawhiba, 2020).

The National Program for Gifted Identification. This national program for gifted identification was designed, developed and, and implemented by the Ministry of Education, the National Center for Measurement (Qiyas), and Mawhiba institutions. The program was developed in 2011 as a result of cooperation and strategic partnership between the three institutions to design a model to detect and identify gifted and talented students in public schools across the nation. The model benefited current research on identification of the gifted and involved qualified and expert scholars with experience in the field of giftedness. According to Mawhiba (2020), the program has several goals, such as 1) identifying gifted and talented

students in all regions of the country in the field of technology and science, 2) achieving fairness and equality when selecting students from both genders for different gifted programs, 3) providing appropriate education based on students' abilities and skills, 4) building a national database for all gifted and talented students in the country, and 5) increasing the societal and parental involvement in the education of the gifted.

Mawhiba Enrichment Programs. After students qualify for the National Program for Gifted Identification, Mawhiba offers several enrichment programs for them in different academic and social arenas. In other words, the programs offer training opportunities for all students to develop their creativity and technical, research, innovative, and social and personal capabilities. These programs are the Mawhiba Academic Enrichment Program, the Mawhiba Research Enrichment Program, the Mawhiba Universal Enrichment Program, and the Mawhiba Skills Enrichment Program.

Mawhiba Academic Enrichment Program. The program offers enrichment units for students identified as gifted to increase their knowledge and improve their academic capabilities. For instance, according to Mawhiba (2020), the Academic Enrichment Program involves in-person and virtual courses provided by qualified teachers in various scientific disciplines such as math, science, technology, and scientific research. The enrichment units are design to give students practical experiences that equip them with 21st-century skills and prepare them for the local and global labor markets. These enrichment courses are held as a full-time or/and part-time and can last for seven to eight hours a day. The main objectives of such programs are to 1) prepare gifted students to excel in the world beyond the classroom, 2) expand and increase their knowledge of various disciplines, 3) determine students' strengths and work on developing their academic goals, and 4) allow them to meet gifted students in different regions of the country.

Mawhiba Skills Enrichment Program. This training program focuses on developing the personal and social skills of high school students and raising their confidence. The program includes training sessions, social games, and special activities that aim to improve students' personal and leadership skills to help them become active and influential members of society. It trains students to communicate with others, work in teams, establish new plans and visions, manage stress, and think creatively. Also, with help from specialized trainers, students get opportunities to understand and practice several aspects of leadership (i.e., decision-making, goal attainment, strategic thinking), individually and cooperatively.

Mawhiba Research Enrichment Program. Mawhiba also has a research enrichment program that aims to familiarize and introduce students to scientific research and its ethics. This program includes courses and teaching units that train students and develop their skills in conducting experiments, looking for materials and resources, collecting and analyzing data, writing reports, and coming up with research ideas in different technical and scientific fields. The program is led by research experts and science specialists that offer practical guidelines that help all gifted and talented students enrolled in the program to observe and achieve participate in scientific research. The program targets first- and second-year high school students and takes place over four weeks in summer. According to Mawhiba, the Research Enrichment Program has several objectives, such as 1) investing in gifted students by preparing them to excel inacademic research, 2) helping students to learn and gain the methodological skills needed for scientific research, 3) communicating with researchers and specialists around the world, 4) receiving immediate support to conduct scientific research and 5) participation in local and international competitions.

Mawhiba Universal Enrichment Program. This is an enrichment program that provides gifted and talented students with scholarships to study at the best international gifted programs around the world. The programs also offer local training courses and lectures in scientific enrichment subjects in research or scientific and technical fields, all led by international experts in gifted education. Also, the program has formed several scientific partnership programs with many prestigious universities around the globe such as the University of Oxford and Cambridge University. According to Mawhiba, the program can help gifted students in many ways, such as 1) helping them move from local to international academic levels, 2) opening up promising chances for students to experience different teaching and learning practices, 3) enhancing communication with gifted and talented students around the world, and 4) competing with students in other gifted programs at the international level.

The following table summarizes the contributions of Mawhiba institutions for gifted and talented students and gifted education in Saudi Arabia since 1999 (Mawhiba, 2020).

Table 2. *Mawhiba in Numbers since 1999*

Gifted and talented students in Saudi Arabia	
Number of students who have been tested for gifted programs	+ 300,000
Students who have received intensive gifted education	+ 54,000
Gifted students who have been identified in the Mawhiba various programs	+ 97,000
Numbers of students who received a scholarship to study a broad	+ 1000
Mawhiba and Teaching of Gifted Students Teachers how were offered training in giftedness	+ 30,000
Number of schools that benefit from Mawhiba programs	+ 8,000
Mawhiba initiatives and programs International accomplishments	397
Curriculum designed in math, Sciences, and technology	170
Local enrichment programs sponsored by Mawhiba	380
International enrichment programs sponsored by Mawhiba	200

Studies on Teaching Gifted and Talented Students in Saudi Arabia

In recent years, there has been increased attention on gifted education and giftedness in Saudi Arabia. Only few research studies have examined and explored different aspects of giftedness in the country. These studies focused on different topics such as teachers' knowledge about gifted students (Al-Dalham, 2018), the characteristics of Saudi gifted students, and the role of parents and home environment in teaching and learning of gifted and talented students (Alyahya, 2018; Hein et al., 2014).

In a research study about gifted students in Saudi Arabia, Hein et al. (2014) investigated the education of gifted children in public and private schools. The study focused on identifying the home environment factors that impacted gifted children's analytical, creative, and practical skills. The study included 294 gifted students (195 male and 99 female). The data were collected with reference to Sternberg's Triarchic Theory of Intelligence tests, which examine the analytical, creative, and practical skills of gifted students. Also, students' parents were surveyed to further understand the environmental factors that impacted these gifted children. The results indicated that parents' education and knowledge about giftedness impacted children's learning more than other factors such as their socioeconomic status and gender. The researcher concluded that more emphasis should be placed on educating the public about giftedness, as many parents lack basic knowledge about their children's talents.

In a qualitative study, Alyahya (2018) examined parental engagement in gifted children's education in Saudi Arabia. The study aimed to explore parents of gifted students' perceptions and experiences regarding their engagement in their kids' education. The study involved interviews with ten parents whose children had been identified as gifted and talented students in public schools. The results indicated that almost all parents were knowledgeable about their children's

talents and were supportive of their education. Surprisingly, one factor that led to the parents'

engagement was a lack of confidence in the child's school. In other words, the parents felt they

had to double their efforts with their kids because their teachers lacked the knowledge and

training they need to teach gifted students. The study concluded that more research has to be

done to explore gifted teacher education in the country and the effectiveness of the teacher

training programs.

Parr and Stevens (2019) conducted a review in which they examined issues and concerns

(i.e., equity and discrimination) in the education provided for gifted and talented students around

the world. The researchers reviewed research and literature in several countries to explore the

challenges that gifted and talented students encounter globally, and Saudi Arabia was included in

their review. The researchers identified major concerns that need immediate attention, despite the

Ministry of Education's efforts to provide equal and quality education for gifted and talented

students in the country. The first issue concerns the nature of the Saudi educational system,

which lacks policies that appreciate giftedness and respond to the various needs of gifted and

talented students. Also, gifted education in Saudi Arabia is criticized for its lack of evolved and

differentiated curricula that provides opportunities to reflect the needs of students with

exceptional abilities. Finally, there is lack of trained teachers with the knowledge and skills

required to respond to the needs of gifted and talented students.

Gaps in the Literature

The literature review revealed a lack of research on the effectiveness of preparation and

training programs for teachers of gifted students in Saudi Arabia. In fact, research on the quality

and the effectiveness of teachers' gifted preparation programs and the training they receive

remains limited and inconsistent. The MOE, represented in Mawhiba institutions, claims that

consistent and ongoing support is provided for teachers and administrators to ensure that gifted

and talented students receive quality education that meets their needs and develops their abilities

(Mawhiba, 2020). These programs are designed to introduce, assist, and educate teachers about

the important components of giftedness, including the psychological development of gifted

children, social and emotional characteristics, and the development of these students.

However, researchers (e.g., Alamer, 2014; Alamiri, 2020; Aljughaiman, 2015; Al–Zoubi

& Rahman; Al Qarni, 2010) have questioned the quality, relevance, and effectiveness of gifted

preparation programs and teacher training in the country. Alamer (2014) argues that despite the

MOE's efforts to increase awareness about giftedness in schools, teachers in public and private

schools are not sufficiently trained to underused how to deal with gifted students. One of the

reasons for this is the limited knowledge about gifted preparation and training programs in the

country (Al–Zoubi & Rahman, 2015). Also, Al Qarni (2010) stated that that most gifted

preparation and teacher training programs are not doing enough to prepare teachers to teach

gifted and talented students. He states that "In Saudi Arabia, teachers who work in gifted

programs do not have prior preparation in the care of gifted students, nor do they receive

adequate in-service training, which qualifies them to work with gifted students" (p. 74).

Similarly, Al Dalham (2018) summarized the current status of gifted education and gifted

preparation programs in Saudi Arabia by saying "the field of gifted education is still at the

beginning and needs several efforts in preparing GT teachers, providing appropriate training

programs, selecting effective GT teachers, and conducting more research in the area of GT

teaching" (p. 117).

One reason for this issue is the limited knowledge about gifted preparation and training

programs in the country (Al–Zoubi & Rahman, 2015). In other words, research on gifted training

programs in Saudi Arabia is scarce. Few research studies (Alfahaid, 2002; Alnahdi 2014; Keller et al., 2016) that examined the gifted preparation programs in the country were found. However, each of these studies differs from this proposed research. Also, each researcher has examined gifted training programs through a different lens.

In one study, for instance, Alnahdi (2014) examined how special education teachers perceived their preparation and training programs. The study aimed to examine Saudi teachers' perspectives about the training opportunities they had to work with special population pupils, including gifted students. In particular, 350 in-service teachers working in public schools in Saudi Arabia were surveyed about the effectiveness of the special education preparation programs provided by the MOE. The findings indicated that teachers reported having negative perceptions of their preparation programs. Most teachers believed that their training was not enough. Some pointed out that they only had one or two hours of workshops directed toward giftedness. The study suggested that more emphasis should be placed on educating and training teachers of gifted students.

Another earlier study conducted by Alfahaid, (2002) yielded similar results. Alfahaid investigated Saudi teachers' perceptions and attitudes toward the identification process of gifted students. This study was conducted to evaluate teacher training programs directed toward identifying gifted students. The study included 453 Saudi teachers who responded to questionnaires that examined several aspects of the gifted nomination process. The findings revealed that most participants had limited training opportunities that enabled them to identify gifted students. The participants also seemed to believe that they lacked the necessary skills to effectively nominate students to gifted and talented programs. The study suggested that more

teacher training programs on gifted education should be implemented in Saudi Arabia to change and develop teachers' abilities regarding gifted identification.

Finally, Keller et al. (2016) conducted a study which examined special education teacher preparation programs in not only Saudi Arabia, but also in all the Arab countries of the Gulf Cooperation Council such as Bahrain, Kuwait, Oman, Qatar, and the United Arab Emirates. As part of the study, the researchers analyzed special education and gifted training programs provided for teachers by 32 universities in these countries. According to the researchers, even though the Gulf countries have made remarkable progress in special and gifted education, more work and effort is needed to prepare teachers effectively to work with the special needs and gifted population. The current preparation programs in the Gulf countries lack practical components (i.e., consistent training, professional development opportunities) that enable teachers to fully understand giftedness and gifted students.

Chapter III: Methodology

Introduction and Overview

The literature review indicates a substantial gap in the knowledge of how teachers in Saudi Arabia are prepared academically and professionally to work with gifted and talented students in the most effective fashion. There is little research that discusses the quality and effectiveness of the gifted preparation programs, professional development seminars, and support that teacher in Saudi Arabia receive to professionally and successfully work in gifted classrooms.

Recently, there has been an increased emphasis on gifted education in Saudi Arabia. The teaching of gifted and talented students has been the focus of many recent efforts led by the Ministry of Education (MOE) and the King Abdul Aziz and his Companions' Foundation for Giftedness and Creativity institutions (known as *Mawhiba*) (Mawhiba, 2020). However, not enough information seems to exist about how Saudi teachers perceive the effectiveness and quality of the preparation programs or the professional development sessions directed toward the teaching of gifted and talented students (Al Dalham, 2018; Alamer, 2014; Al Qarni, 2010). Given the current growth of gifted education in the country, there has been a pressing need to understand what Saudi teachers lack in terms of training and support to teach in gifted classrooms.

This research study emerged in response to this need. Its purpose was to explore in-service Saudi teachers' perceptions and experiences regarding the quality and effectiveness of gifted teacher preparation programs. Moreover, this case study aimed to determine whether the professional development sessions that Saudi teachers have attended increase their understanding of giftedness and prepare them to productively teach in gifted classrooms. Also, the study explored teachers' perspectives about the degree of support they receive from school leaders, the

MOE, or the Mawhiba institution regarding teaching instruction for gifted students. The study results can be used to better understand what teachers truly need in terms of knowledge, training, professional development opportunities, and support to be able to teach gifted and talented students in the most effective fashion.

Accordingly, this chapter discusses the research design to be used in the study. It includes the proposed research questions, a detailed description of the nature of the study, the selection of the subjects, and a proposed timeline for the research. The chapter also included a discussion of the procedures that were used to collect and analyze the data and the issues around the trustworthiness of the research study.

Research Questions

The following questions guided the study:

1. What are in-service teachers' perceptions and experiences regarding gifted preparation and training programs in Saudi Arabia?

2. What effect do gifted preparation and training programs have on teachers of gifted and talented students in Saudi Arabia?

3. What did teachers describe as challenges to their gifted preparation and training programs in Saudi Arabia?

Statement of Reflexivity

In qualitative research, the researcher serves as the instrument for collecting and analyzing data and ascribing meaning to them (Creswell, 2016). The researcher's values, beliefs, experiences, personal and educational background, and expectations can influence research procedures and must be revealed and identified (Bloomberg & Vlop, 2018; Merriam & Tisdell,

2016). As a qualitative researcher, it is important to provide information about my personal and educational background and experiences, which may or may not affect the research study.

I am a teacher and educator who has two years of experience in teaching gifted and talented students. Education, especially gifted education, has been an important part of my life. I was raised in a remote and small town where getting an education was a dream. During my early years in school, I was struck by the critical role of education and teaching in Saudi Arabia, a country where education for women is limited and restricted. From the first day of school, everyone noticed my passion for teaching, learning, and participating in classes. I had a dream to overcome the many cultural and social boundaries that restricted our involvement in getting a fair education. One of my goals as an educator is to make our voices heard by the people who run the educational system. In my opinion, the progress of any nation is always associated with fair and equal education for everyone, and schools and teachers have the potential to improve the future of the younger generations.

That is why I shifted my research interests from fashion design to teaching of gifted students. As for my education, I received a bachelor's degree in Fashion Design from King Abdulaziz University in Jeddah in 2011. Then I received a scholarship to pursue my passion in teaching gifted students in 2013 in the United States of America. In 2016, I got my Master's degree in Curriculum and Instruction (majoring in Gifted Education) from the University of Arkansas.

One reasons why I shifted my research and study focus is my belief that the first step toward fair and equal opportunity for all children is providing education that serves the needs of all students regardless of their gender, faith, ethnicity, or culture. That is the promise of gifted education. As a researcher, I believe that gifted education is a promising field that provides an

understanding of gifted and talented students' learning, social, emotional, and educational needs and that each child has a unique gift that must be understood and taken care of. However, in Saudi Arabia, gifted students and their teachers have not received sufficient attention from the MOE. This has resulted in a lack of appropriate opportunities for gifted and talented students that enable them to maintain and develop their exceptional abilities. This has also fostered a lack of preparation and poor support for teachers who work with gifted students and try to meet their various needs. That is why I became interested in reading and researching about the needs and challenges associated with gifted education in Saudi Arabia.

This dissertation was based on the idea of giving Saudi teachers who work with gifted students an opportunity to express their opinions about the challenges they encounter in the classroom. This could provide vital insight to school leaders and decision-makers in Saudi Arabia, thereby allowing them to understand what teachers need in terms of training and direct support to teach gifted students in the most effective fashion. Significantly, my experience in gifted education played a significant role in the research. Having taught gifted students in Saudi Arabia, I can relate to other teachers' perspectives. Also, my knowledge of the country's educational system was be a key factor in understanding the participants' experiences and perceptions. As a researcher, my role is to provide a rich and in-depth description of the participants' perspectives and experiences regarding the research topic. I intended to report and interpret the collected data by connecting the given responses with both the participants and my background and experience. I tried to minimize the distance between me and the participants to fully capture and understand their perceptions, feelings, experiences, and views.

However, I was also aware that potential biases may exist as a result of my experience and prior knowledge of gifted education in Saudi Arabia. These could impact the study process.

Pursuing answers to my research questions requires me to be aware of the presence of biases in the participants' responses, which can be addressed by providing direct quotations that document their feelings and beliefs. That is why employed several strategies (e.g., a pilot study, member checking, peer examinations, and rich description) to eliminate or reduce biases throughout the research study.

Nature of the Study

To address the research questions, the study employed a qualitative research methodology for the data collection and analysis processes to obtain crucial data from all participants. The qualitative method allows the researcher(s) to provide an in-depth explanation of the participants' beliefs, opinions, experiences, motivation, and behaviors regarding the studied topic (Creswell, 2016). The use of qualitative methods in research allowed researchers to go beyond statistical data to gain an understanding of the underlying reasons for the participants' beliefs and opinions (Flick, 2018).

Moreover, the dissertation used single case study design which can be an effective strategy of investigation for explanatory and descriptive purposes (Yin, 2018). Creswell reminded us that case study can be used in qualitative research and it allows "the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information." (p. 96). The case study design also allows researchers to investigate a "a contemporary phenomenon (the "case") in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident." (Yin, 2018, p. 14). The selection of the single case study design provided opportunities to explore and understand the teachers' experiences and perceptions about how they have been prepared and trained to work with gifted and talented

students in the most effective fashion. Also, I chose the single case study design because it allows for in depth investigation of the studied phenomenon which captures the entire case in one study with minimum researcher manipulation (Yin, 2018).

Furthermore, observation and semi-structured interviews were used to collect data for this case study. I observed several online-based professional development sessions provided by the MOE and the Mawhiba organization for teachers currently teaching in gifted classrooms. According to Flick (2018), observation provides researchers with direct access to participants' experiences and behaviors. The goal of these observations was answering the research questions and address research goals relating to the teachers' professional development experience. The observations allowed me to evaluate the content, format, and organization of the professional development activities provided to teachers of gifted students.

In addition, the study involved semi-structured interviews with teachers of gifted students. Semi-structured interviews ensure that participants discuss core concepts related to the research questions yet allow for some flexibility in the interviewees' responses (Roulston, 2010). The purpose of the interviews was to elicit information about how teachers of gifted students perceive the effectiveness and quality of gifted preparation programs. The interviewees were asked open-ended questions about their beliefs and attitudes about the professional development sessions provided by the MOE and the Mawhiba organization.

The Participants

This case study pursued to understand the experiences of Saudi in-service teachers of gifted students concerning the preparation programs, professional development opportunities, and support they receive to work in gifted classrooms. The selection of the study sample was based on a purposeful sampling aligned with goals of this study. These participants were chosen

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because of their shared experience of teaching gifted students and the fact they have received one or more training sessions. Purposive sampling helps the researcher(s) to focus on particular population that shares the same area of interest and allows for the selection of "information-rich cases with the objective of yielding insight and understanding of the phenomenon under investigation" (Bloomberg & Vlop, 2018, p, 186). According to Merriam and Tisdell (2016), "Purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (p.96). Thus, the targeted population for this study included licensed in-service teachers who were teaching gifted and talented students in public or private schools in Saudi Arabia. Further, the selected participants should have gone through gifted preparation programs and completed at least one training/professional development program aimed at teaching gifted students.

Moreover, the selected teachers were working under the umbrella of the MOE and should have received their preparation programs and training from the Mawhiba organization, which is responsible for gifted and talented students and their teachers in Saudi Arabia. The institution also is responsible for preparing teachers in different subject areas (i.e., math, art, social studies, science, and English) before and after they start teaching in gifted classrooms. Additionally, the teachers who involved in the study are teaching at different school levels, including elementary school (4), middle school (6), and high school (8). These teachers are teaching five subject areas (math, art, social studies, science, and English). The study consisted of a mixed-gender group with 8 females and 12 males.

Overview of Information Needed

The present dissertation explored qualitatively the experiences and perceptions of Saudi teachers of gifted and talented students regarding the country's preparation and training programs. Therefore, three types of information – demographic, precrural, and theoretical – were needed to meet the study objectives and answer the research questions.

First, demographic information (e.g., age, gender, occupation, ethnicity, educational level, school types) helped in describing and identifying the characteristics of the participants. This type of information allows the researcher to know the participants' personal and educational backgrounds and identify similarities and differences in their experiences and perceptions. (Bloomberg & Vlop, 2018). For the dissertation, demographic information was collected through an exploratory survey which collects the participants personal and educational data.

Second, perceptual information was needed regarding the participants' experiences of the effectiveness and quality of the gifted preparation programs, training sessions for teachers of gifted students, and professional development opportunities provided by the MOE or the Mawhiba institution. This perceptual information is critical in qualitative research "to gain access to understanding the meaning of experience for an individual, a culture, or social groups" (Given, 2008, p. 606). For this dissertation, perceptual information was collected through interviews with the selected participants. The interviews were guided by open-ended questions that capture the essence of the participants' perceptions about their experiences about teaching gifted preparation and training sessions.

Third, theoretical information was needed to build upon existing and prior research related to the topic and to formulate a theoretical framework for the study. Theoretical information includes information researched and collected from different literature resources to

identify and assess what is already known about the research topic (Bloomberg & Vlop, 2018).

Theoretical information needed for this dissertation was collected through an extensive review of

the research literature on gifted education, gifted preparation programs, professional

development in giftedness, teachers of gifted, and gifted education in Saudi Arabia. Figure 2

illustrates the types of information needed to complete the dissertation.

Demographic Information
- Exploratory survey

Research Questions

Theoretical Information
- Extensive review of the current literature

Perceptual Information
- Semi-structured Interviews
- Observations
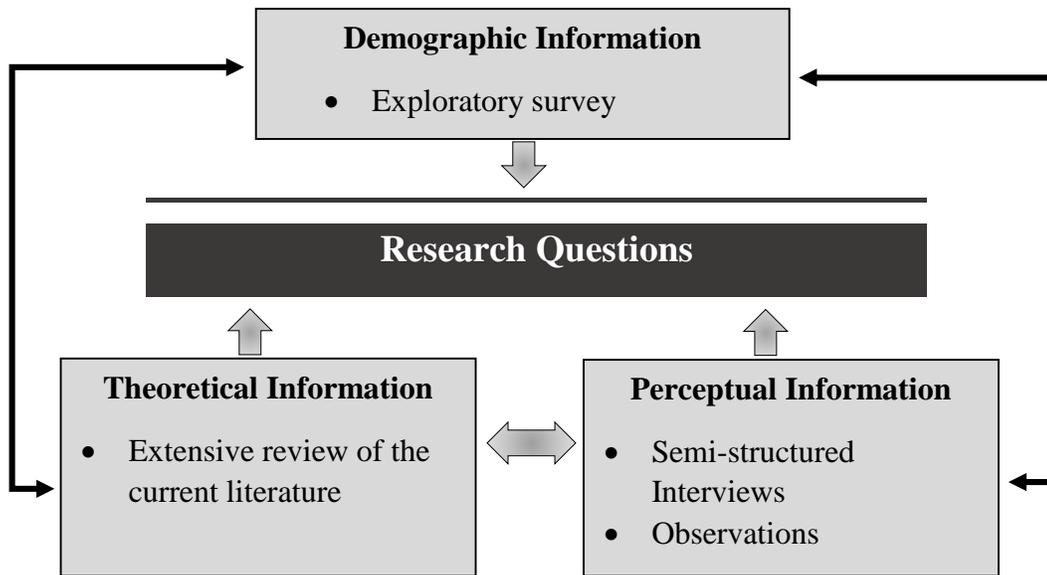
Figure 2. Overview of information needed in the study

Research Procedures

This dissertation unfolded in two distinct phases. The first phase was related to finishing

the administrative work, which involved obtaining approval from the university Institutional

Review Board (IRB), the MOE, and the Mawhiba institution to conduct the study. At the

beginning of this phase, a request was submitted to the university's IRB to conduct the study.

Hammersley (2013) tells us that the IRB is an administrative protocol established to protect the

rights and welfare of human recruits who participate in any research study. Once approved, a

permission request was sent to the MOE and Mawhiba director to obtain approval to conduct the

study, identify the training sessions to be observed, and obtain a list of in-service teachers who teach in gifted classrooms.

After receiving authorization, I sent invitation emails (see Appendix C) to the listed teachers who are currently teaching gifted students and have attended at least one or more training sessions. The first 20 teachers who agree to participate in the study were chosen for interviews. After getting the teachers' approval, they were asked to sign consent forms (see Appendix D). The consent form included basic information about the study, the purposes and the significance of the study, its risks and benefits, and describe the participants' right to withdraw from the study. After getting their approval, each teacher was assigned a pseudonym to maintain confidentiality.

Data Collection

After finishing the first phase (the administrative process), the second phase started with a plan for collecting and analyzing the data. According to Yin (2014), case study data can be collected from many different resources (Yin, 2009). The proposed plan included multiple sources and strategies such as conducting pilot interviews, observing several training sessions, and starting the semi-structured interviews with the participants.

Pilot Interview

For this dissertation, the first step in the data collection process was conducting pilot interviews to determine the effectiveness of the interview questions. Merriam and Tisdell (2015) tell us that pilot interviews help the researcher(s) practice the interview and identify questions that need to be reworded or replaced. The pilot interview was conducted with two volunteer teachers from the list I received from Mawhiba organization. These teachers were excluded from the final sample for the research study.

Observation

The first data collection strategy that I used in this dissertation was observation. In particular, I observed several online-based training sessions/workshops provided for teachers of gifted students by the Mawhiba program or the MOE. These observations helped answer the research questions and identify and review the type of training teachers of gifted students receive. Also, the observations allowed me to evaluate the content, format, and organization of the professional development activities provided to teachers of gifted students. The observations were guided by a modified version of the Creswell (2016) note-taking protocol (see Appendix B), which allowed researchers to describe the experience and reflect on it. During the observation, I took notes detailing each aspect of the training sessions, including content, format, and organization. Chronological order strategy (Emerson et al., 2011) were used to trace the activities chronologically and recall noteworthy events in the sequence the researcher observes and experiences them.

Interviews

Particularly, the interview method was designed to answer the research questions. Based on the pilot interviews, I modified and rephrased the questions that need to be reworded or replaced in the interview protocol. The result of the pilot interview allowed me to identify the strengths and weaknesses of the interview protocols. Next, after modifying the interview questions, all interviews with the participant teachers were recorded. These recorded interviews were transcribed verbatim to capture the participants' responses during the interviews.

Also, the interview protocol consisted of three sets of open-ended questions, and each section was used to answer one of the research questions. The first set was related to the first research question, which explored teachers' perceptions regarding the effectiveness and quality

of the gifted training and preparation programs. Some questions explored how teachers perceive

the preparation programs they received before teaching in gifted classrooms. For instance, the

teachers were asked: (1) What training or education about gifted students did you have BEFORE

you started teaching in gifted classrooms? (2) What do you think of the way you have been

prepared to teach gifted students? Other questions explored the teachers' perceptions about the

training and professional development sessions they received during their teaching career in

gifted classrooms. These sessions are provided by the Mawhiba institution on a regular basis.

This section included questions such as: (1) How often do you receive training about teaching

gifted students? (2) How do these sessions influence your methods of teaching in gifted and

talented classes?

A third set of questions aimed explored teachers' perspectives regarding what they need

to work with gifted students in the most effective fashion. In other words, these questions

highlighted teachers' opinions regarding the support/lack of support from school principals, the

MOE, or the Mawhiba institution. For example, the participants were asked: (1) What do you

need to work effectively in a gifted classroom? (2) What challenges do you have, as a teacher of

gifted students, when working in gifted classrooms? (3) What kinds of support would you like to

receive to teach gifted and talented students? By answering these and more questions, I was able

to address the study purpose and answer the research questions concerning teachers of gifted

students in Saudi Arabia.

All the interviews with the teachers were recorded and transcribed, and the data was kept

in a secure research file. All notes taken during the observation: notes about the interviews, notes

about observations, and all other memos recorded during the data collection procedures were

included in the file. These notes helped me get a clear picture of each participants' perceptions

and experiences regarding gifted preparation programs and gifted professional development in Saudi Arabia.

Trustworthiness

According to Creswell (2016), in qualitative research, establishing trustworthiness is crucial to increase the accuracy of the study findings and reinforce the study's conclusions. In terms of the trustworthiness and credibility of my research, several techniques, such as member checking, peer debriefing, and thick description were used to ensure more trustworthy, credible, and authentic data.

Member Checking

First, member checking was used throughout the data collection and analysis processes. This strategy ensured that the collected data were aligned with the participants' own perspectives and my interpretations accurately reflect their points of view. Marshall and Rossman (2014) reminded us that member checking is a strategy used to enhance the credibility of qualitative data by providing accurate descriptions or interpretations of the findings in the research study. In this dissertation, I had ongoing conversations with the participant teachers to provide them with opportunities to check their responses to the interview questions. Also, some teachers were asked to evaluate my interpretation of their responses and check whether these findings align with their opinions.

Peer Debriefing

The second strategy I used to ensure the collected data and my interpretations of them are trustworthy and credible was peer debriefing. Peer review or peer examination is a strategy that involves ongoing discussion with researcher colleagues or other researcher(s) regarding the study process, emerging findings, and any tentative interpretations (Merriam, 2019). For this

discussion, peer debriefing helped me compare my own findings with another researcher who has similar research experience and interest. Thus, an external individual served as a peer examiner to evaluate the data interpretation process.

Thick Description

Thick and detailed description was the third strategy I used to enhance the rigor and trustworthiness of the study. Merriam (2019) pointed out that providing rich and thick description is an important strategy to ensure generalizability or transferability of the qualitative data. By providing more descriptive information throughout the study, the readers should be able to "determine how closely their situations match, and thus whether findings can be transferred" (p. 29). In this dissertation research, I tried to give a rich, detailed, and in-depth description of every aspect of the study including the settings, the participants, the research procedures, and the participants' experiences and perceptions to provide readers with an accurate picture of the research process and findings.

Risks and Benefits

There were no anticipated risks associated with this dissertation. The data was collected through observations of training sessions and semi-structured interviews with teachers of gifted students. However, this research project might have benefits related to a better understanding of the effectiveness of gifted teacher preparation programs in the country. Particularly, based on teachers' perspectives, this study contributed to the limited knowledge of the effectiveness of gifted preparation programs and gifted training sessions.

Limitations of the Methods

The dissertation focused on understanding the perceptions of Saudi teachers regarding gifted preparation and training programs in Saudi Arabia. Hence, the sample was limited to

licensed teachers who were working in gifted programs or teaching gifted students in public or private schools in Saudi Arabia. The small sample size and the qualitative nature of this data limited the ability to generalize the findings, even in the Saudi context. Furthermore, the data was collected through interviews and observation. Using interviews as a data collection method had some limitations. To illustrate, the participants may withhold information, refuse to answer some questions, or revise their personal experiences. In other words, interview responses represent perceptual data, which may not give us a perfect portrayal of the real event.

Ethical Consideration

Ethical considerations are important in qualitative research. Creswell (2016) wrote that ethical issues are associated with protecting the participants' anonymity and the confidentiality of the collected data. In this dissertation, I followed several procedures to ensure that the research study was aligned with recommended ethical standards, First, I followed the rules and guidelines listed by the university's Institutional Review Board (IRB). Second, to protect the participants' identities, the participants remained anonymous throughout the study. Each subject was assigned a pseudonym to ensure confidentiality. Finally, all information collected from this research remained secure, confidential, and in the possession of the researcher. All the recordings were stored in a secure, password-protected file. Only the researcher had access to this file. No identifying information, such as names, job titles, or work locations appeared throughout the study. In other words, all the data, information, and responses provided in the interviews were kept confidential to the extent allowed by the law and University policy.

Concept Map

The following Figure represents an interactive design that summarizes the research study:

Goals	Conceptual Framework

• Explore teachers' perceptions and experiences regarding the quality and effectiveness of gifted preparation programs in Saudi Arabia.
• Examine teachers' perspectives about the degree of support they receive to effectively teach in gifted classrooms.
• Understand what teachers need in terms of knowledge, training, professional development opportunities to teach gifted and talented students in the most effective fashion.
	• The Conceptual framework will be informed by the research on:
	   • Teachers of the gifted
	   • Teaching gifted students
	   • Gifted education in Saudi Arabia
	   • Gifted preparation program

Research Questions
1. What are in-service teachers' perceptions and experiences regarding gifted preparation and training programs in Saudi Arabia? 2. What effect do gifted preparation and training programs have on teachers of gifted and talented students in Saudi Arabia? 3. What did teachers describe as challenges to their gifted preparation and training programs in Saudi Arabia?

Method	Trustworthiness
• Qualitative Research Method • Case study design • Observation and Semi-structured interviews	• Pilot interview • Member checking • Peer debriefing • Thick description

Interview Question Examples
1. As a teacher of gifted, what do you think about the way you have been prepared to teach GT students? 2. What do you perceive to be the most important things teachers of GT students should know about their academic needs? 3. Describe any other professional development sessions or workshops that focus on meeting the needs of gifted students 4. What challenges do you have, as a teacher of gifted, regarding working in gifted classrooms?

Figure 3. The Dissertation Concept Map

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Summary

      This qualitative case study dissertation was conducted to fill a knowledge gap regarding

the quality and effectiveness of gifted preparation programs in Saudi Arabia. The participants

included in-service teachers who were teaching gifted and talented students in both public and

private schools across the nation. Two data collection approaches were used: observations of

several professional development sessions and semi-structured interviews with teachers of the

gifted. The observations addressed the research goals related to participants' perceptions and

reactions to the professional development experience and to evaluate their content, format, and

organization. The interviews were guided by semi-structured protocols with open-ended

questions that explored many aspects of the participants' experiences, including how they have

been trained, their knowledge regarding giftedness, challenges they face when working in gifted

classrooms, and the types of support they might have or need to effectively teach gifted and

talented students. After collecting the necessary data, they were coded, and themes were

generated and analyzed using First and Second Cycle coding. The research results are reported in

Chapter 4 and discussed in Chapter 5.

Chapter IV: Results and Findings

Introduction and Overview

Gifted education in the Kingdom of Saudi Arabia is growing faster than ever, and this trend is expected to continue in the coming decades. The quality and effectiveness of gifted teacher preparation and training programs in the nation has been an ongoing topic of interest amongst educational researchers, with significant focus on the professional development sessions. Alnahdi (2014) pointed out that teachers in Saudi Arabia are not professionally prepared to teach gifted students in the most effective fashion. Alamer (2014) writes that "many gifted students are taught in regular classrooms by teachers who are either untrained or unknowledgeable about their needs" (p. 110).

Hence, the purpose of this qualitative case study was to explore in-service Saudi teachers' perceptions and experiences of the quality and effectiveness of gifted teacher preparation programs. Moreover, the study aimed to determine whether Saudi teachers feel that the professional development sessions they attended helped them develop their understanding of giftedness and prepared them to productively teach in gifted classrooms. Also, the study explored teachers' perspectives about the degree of support they receive from school leaders or the Mawhiba Institution regarding instruction for gifted students. The results of the case study can be used to better understand what teachers require in terms of knowledge, training, and professional development opportunities to help them teach gifted and talented students in the most effective way. Accordingly, the following research questions guided the study.

1. What are in-service teachers' perceptions and experiences regarding gifted preparation and training programs in Saudi Arabia?

2. What effect do gifted preparation and training programs have on teachers of gifted and talented students in Saudi Arabia?

3. What did teachers describe as challenges to their gifted preparation and training programs in Saudi Arabia?

Description of the Findings

To answer the research questions, two primary data collection methods were used: semi-structured interviews with 20 teachers of gifted students, and observations of five online training workshops. The interviews were conducted via Zoom and involved 20 teachers who teach and work with gifted students in Saudi Arabia. The interviews provided an in-depth understanding of teachers' perceptions and experiences regarding the effectiveness and quality of gifted training and preparation programs in the country. The findings in this chapter also derive from observations of five training sessions. The observations aimed to reveal the type of training that teachers of gifted students receive and how they apply it in their teaching. Also, the observed information included the program's design, goals, content, and operation. The findings from the observation data helped to shed light on the current training practices offered by the MOE and the Mawhiba institute. The observation data were analyzed deductively and linked to the interview findings. Figure 4 illustrates the data analysis process:
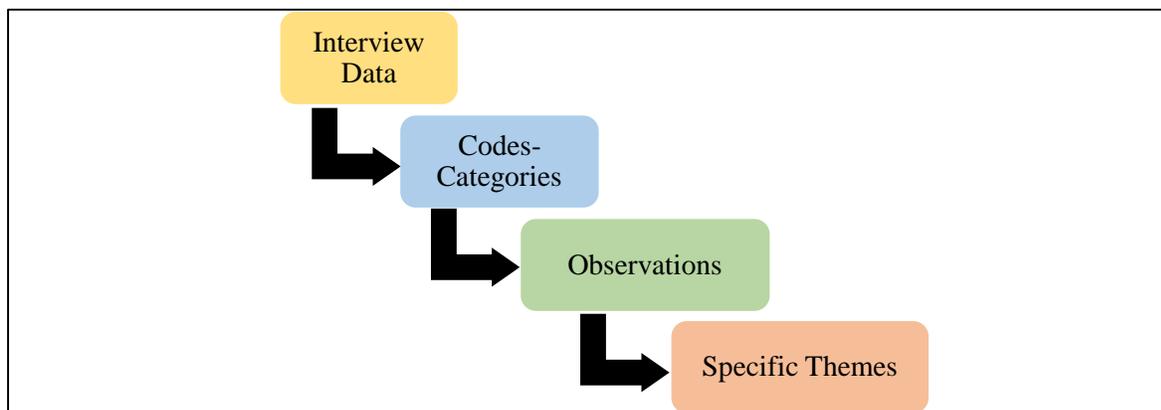

Figure 4. The data analysis process

Description of the Observation Data

The observations were analyzed using a deductive analysis process. This analysis process went through several steps:

- At the beginning, I video-recorded all observations to accurately capture the events and interactions that occurred in these programs. Also, during the observation, I took descriptive notes and memos detailing each aspect of the training sessions, including their content, format, and organization. In each observation, I wrote down background information such as the number of participants, the date and time, topics, and content. After each observation, I transcribed and translated each session to provide a visual representation and to find themes that reflected the themes from the interview data. Significantly, using deductive methods helped me move from general coding to more specific coding that best aligned with the participants' responses.

- After that, I looked at the interview data and set a codebook to use as a reference to guide me through the coding process. Also, I revisited the research questions before assigning codes to the observation data.

- I started reading through each line and assigning codes with the predefined set of codes derived from the interview data.

- Then, I began to analyze and formulate categories based on the existing initial set of codes, which came from the interviews.

- After that, I evaluated the codes and categories to develop themes that best represented the phenomenon using individuals' experiences and perceptions.

- Then I finalized the study themes to support and answer the research questions.

Table 3 includes more information about each training courses.

Table 3. *Observed courses dates, duration, and topics covered*

Observation	Date	Duration	Topics Discussed	Participants
1	Friday, November 12, 2021	3 hours 1:00 -3:00 p.m.	Theory of Inventive Problem Solving (TRIZ)	1,000
2	Sunday, November 14, 2021	2 hours	Creative Thinking	850
3	Sunday November 21, 2021	2 hours	Developing Creative Behavior Towards Excellence	700
4	Saturday December 5, 2021	1:30 hour	Strategic Planning for Scientific Projects: From Vision to Reality	550
5	Friday December 17, 2021	1 hour	The Charisma of a Successful Gifted Teacher	1,000

First Training Session

The first training session took place on 11/11/2021 was three hours long. The observation was conducted via the online Microsoft Teams application. The title of the session was "Theory of Inventive Problem Solving (TRIZ)", and the instructor used PowerPoint slides to deliver the training content. The session was divided into three sections. The first section served as an introduction and lasted about 40 minutes. The instructor started the session by introducing herself and talking about her teaching experience and teaching philosophy. Then she explained how she started her career in teaching gifted students and the importance of her teaching background in delivering useful and informative training sessions. After that, the instructor went through the content and the structure of the presentation.

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The second section included a 90-minute lecture about the Theory of Inventive Problem Solving (TRIZ). This involved more than 40 slides describing different aspects of the theory such as its historical background, an overview of its strengths and weaknesses, its fundamental principles, types of problems, creative problem-solving strategies, and examples from classrooms. The lecturer also discussed the Creative Parts (4Ps) – Person, Process, Product, and Press – in more detail. This part also involved a discussion about major questions such as, "What does TRIZ mean?" "Who is the founder of the theory?" and "When is problem-solving considered creative?" At the end of every section, the lecturer posted some discussion questions and asked the participants to answer them and express their opinions and thoughts verbally using the microphone and in writing using the chat function in Teams. One question was, "What is the difference between innovation, invention, and creativity?" Besides the discussion questions, the lecturer provided examples from gifted classrooms to support the discussed points. Some examples were taken from teachers' notes, while other examples represented students' work. The presenter used graphs, pictures, and clips to explain different elements of the Theory of Inventive Problem Solving. It is worth mentioning that the presenter also used different strategies to check the audience's understanding using direct questions (e.g., "Do you have any questions? Do you understand me?").

The third section, which lasted for 40 minutes, included an independent questionnaire and a couple of discussion questions. The instructor asked the participants to scan a code which led them to a two-minute questionnaire about what they had learned about the training topic. Next, the lecturer discussed the answers to some of the survey questions with the participants. She encouraged the participants to participate and think out loud, even if they didn't want to reveal their names. After listening to some of the answers, she started to clarify and explain some

misconceptions about the theory. The session ended with an activity related to creative vs. critical thinking when problem-solving. She provided the participants with a problem and asked them to divide themselves into two groups: critical thinkers and creative thinkers, to solve their problem using the (Badlet). This activity lasted for 30 minutes. The participants were then asked to share their results and explain their point of view. After this activity, the lecturer ended the training session.

Second Training Session

 The second observation took place on 11/11/2021 and lasted two hours. This observation was conducted via Zoom. The title of the session was "Developing Creative Behavior Towards Excellence". The instructor used PowerPoint slides to present the content. At the beginning of the session, the instructor introduced herself and talked about her educational and career background. The lecturer has been teaching gifted and talented students for more than 17 years. She had also conducted more than 100 training sessions directed at teachers of gifted students. The lecturer then said the main objective of the course was to increase teachers' knowledge and awareness of creativity in gifted classrooms.

After the introductory part, the lecturer lectured for more than 90 minutes without stopping. The instructor spoke in detail about six different elements of creativity. The first was Creative Behavior. For 30 minutes, the instructor used slides and short clips to introduce different theories and models of creative behaviors such as the 4C Model (Big-C, Pro-C, Little-C, and Mini-C). At the end of each model, learning practices and examples from gifted classrooms were provided. The second element discussed in the presentation was Renzulli's three factors that are significant to the development of gifted behavior: Above average ability,

creativity, and task commitment. Each of these factors was discussed in detail and linked to the literature review.

The next section discussed how to differentiate between Creative Thinking Skills and Analytical and Critical Thinking Skills. The trainer didn't explain these skills in detail but provided the audience with some references to read. She then explained the differences between three models: Teaching about Creativity, Teaching for Creativity, and Creative Teaching. She discussed and explained the models and provided several perspectives on each one. She also introduced some strategies related to creative teaching such as Self-Regulated Learning (SRL), Creative Problem Solving (CPS), Future Problem Solving (FPS), and the Independent Investigation Method (IIM). She clarified and stressed that these strategies should be integrated with teaching programs and should not be studied alone or separately.

At the end, the instructor asked for additional time to discuss the content with the participants. There was not enough time for questions or for interaction between the lecturer and the audience. In other words, there was no intervention from the audience, nor was there any interaction. The lecturer ended the training session by thanking the teachers for their participation and encouraging them to increase their awareness of creative strategies for teaching gifted and talented students.

Third Training Session

The third observation took place on 11/11/2021 and lasted two hours. The observation was conducted via Zoom. The title of the session was "Creative Thinking" and the training explored the (SCAMPER) theory. At the start of the course, the instructor went through the presentation's content and explained its objectives. The presenter introduced the speaker and his long experience of teaching gifted and talented students and training teachers. The lecturer had

worked 16 years as a math teacher, five years as a gifted-student administrator, and has earned many awards from the Ministry of Education for his efforts to train teachers.

The presentation was divided into three sections of about 40 minutes each. In the first part, the instructor started his first slides with discussion questions and activities for the participants. The questions were: "What is Creative Thinking?" "How can we teach creative thinking?" "How can we measure creative thinking?" With each question, the lecturer paused the presentation and gave the audience two minutes to think and write their answers in the Zoom chat. Next, he read some of the answers and offered three different definitions of creative thinking. His next slide showed a table consisting of nine points distributed over three rows, each row containing three points. The participants were asked to draw four straight lines that passed over all nine points without intersecting with each other. The teachers were given three minutes to think and share their answers using the pen and drawing on the picture displayed on the slide. The first section ended with ten slides about the definition of creative thinking and a thoughtful discussion of the three creative thinking skills (fluency, flexibility, originality).

The second section involved a 40-minute lecture about research on creative thinking. The lecturer reviewed seven different theories related to creative thinking and giftedness. For example, the presentation reviewed 1) the Theory of Inventive Problem Solving (TRIZ), 2) Six Thinking Hats, 3) Brainstorming Theory, 4) Mental / Cognitive Mapping theory, 5) The CORT Thinking Programs, 6) SWOT Analysis Theory, and 7) SCAMPER Theory, which was the main topic of the workshop. This section was lecture-centered and did not include any interaction between the instructors and the audience.

The third section of the presentation examined the (SCAMPER) theory and its connection to creative thinking and giftedness. The instructor started by displaying a set of pictures (a key, a

newspaper, a chair, and a spoon) and asking the participants to think about uses for these objects other than their primary use. He gave them about three minutes to write their answers in the chat. He not only encouraged the participants to think about other uses and to collaborate, but also gave feedback and motivated them to try. Before discussing theory, the lecturer asked the audience to write number 1 in the chat if they had ever heard or learned about this theory. Then he started to explain each letter of the acronym (SCAMPER) through full definitions and examples. (In SCAMPER, S = substitute, C = combine, A = adjust / adapt, M = modify, P = put to other uses, E = eliminate, R = reverse / rearrange). After discussing the theory in detail, the lecturer provided the participants with a quick quiz by presenting about eight slides, each showing two pictures and asking the participants what strategy was used in the pictures. He spent about 30 minutes on this section and read the participant's answers, provided comments, and explained examples. He closed the session by naming several reference books about the SCAMPER theory.

Fourth Observation

The fourth professional learning opportunity took place on October 27, 2021 and lasted two hours. This observation was conducted via Zoom. The title of the session was "Karizama of A Successful Teachers". The instructor was introduced by a professional development planner who began with a brief introduction about the trainer's teaching background and experience. The planner also emphasized the instructors' vision and interest in improving and developing the gifted-student teaching in Saudi Arabia. The planner added that the presenter is a certified trainer from the Saudi Organization for Professional and Technical Training and that the workshop was directed at all teachers of gifted students, advisors, assistants, and principals.

The instructor opened the session by introducing the lecture's content: Gifted Teacher Skills and Classroom Management Skills. The instructor presented the session's main idea of "Developing the necessary knowledge and experiences for teachers to provide an effective learning environment." After that, she provided the participants with an opening question: "What does the word Karizama mean to you?" She gave the audience three minutes to think about it and participate using Zoom's chat function. Then she started to read some answers and offer some comments. The instructor then defined the word "Karizma" and gave some examples of characteristics of effective teachers. She emphasized teachers' responsibility for helping their students to succeed. This section took almost one hour.

In the second part of the lecture, the instructor again presented a question to the audience "What is the teacher's responsibility towards his students?" The participants interacted immediately with the question and provided answers such as "respect", "positive communication", "encouragement", "flexibility", "considering individual differences", etc. After that, the instructor introduced her view of teachers' responsibilities and provided several examples of valuable skills needed for effective teaching. The instructor presented about eight slides describing the most important teaching skills and explained each one in detail. These skills were 1) Positive relationships with students, 2) Classroom Management, 3) Organization/Time Management, 4) Understanding of Technology, 5) Empathy/Compassion, 6) Flexibility, 7) Collaboration, and 8) Clear Lesson Planning. To end this section, the instructor asked the audience if they had any questions up to this point, if any points had to be clarified, or if anyone had a question or comment.

The last part of the session was about Classroom Management Skills. The instructor started by explaining the pillars of classroom management, which include the learner, the

teacher, learning tools, and teaching material. She showed the audience a short clip about the

cycle of the classroom pillars and how they are connected to each other. After that, she

highlighted several classroom management techniques such as how to provide a safe

environment for students, encouraging students to participate and express their opinions,

developing social skills, and understanding individual differences. In the last 30 minutes of the

session, the instructor opened a discussion and started to answer and explain some complicated

points.

Fifth Observation

The fifth workshop was held on November 12, 2021, and lasted for one hour. This

observation was conducted via Zoom. The title of the session was "Methods for Identifying

Gifted and Talented Students in the Classroom". The instructor was introduced by the workshop

planner, a representative from the Ministry of Education, who started with a brief introduction

about the trainer's teaching background and experience as a gifted teacher. The lecturer held a

Master's degree in Curriculum and Instruction, and specialized in gifted education. In addition,

the planner also highlighted that the instructor is not only interested in gifted programs but also

all programs that focus on developing critical thinking, intervention, and innovation skills. He

has been working as a gifted program coordinator and has several publications in the field of

talent.

The first section of the professional development session introduced the evolution of the

definition of "giftedness" throughout history. This section lasted for 20 minutes. The lecturer

started by playing a three-minute clip about the history of gifted education. The instructor tried to

link the new definition of giftedness presented by the National Association for Gifted Children

(NAGC) to the previous ones. He provided an extensive historical overview of giftedness and

creativity and mentioned several scientists and theorists such as Lewis Terman, Renzulli,

Tannenbaum, and Sternberg who have made great contributions in the field of giftedness. At the end of this section, the lecturer provided a definition of giftedness in the Saudi context. He presented the Ministry of Education's definition of giftedness and gifted and talented students.

In the second section, which lasted for 15 minutes, the instructor focused on explaining the difference between giftedness and excellence and described each term and its domains. The lecturer explained that giftedness has mental, psychological, creative, and social domains. The four domains associated with excellence are technical, academic, sports, and relationships. Using slides, the lecturer compared the giftedness and excellence concepts using tables and figures.

In the last section, the instructor introduced characteristics of gifted and talented students. He divided the characteristics into four broad categories:

1. Characteristics in the field of education, such as having critical thinking skills and a strong memory.

2. Characteristics in the field of creativity, such as having a strong imagination and creative problem-solving skills.

3. Characteristics in the field of motivation and achievement, such as accuracy, internal motivation, and ability to perform non-routine work.

4. Characteristics of leadership and initiative, such as being flexible and responsible.

The lecturer then posed a question: "What do gifted students need in order for their talent to appear correctly?" He asked the participants to write their answers. The participants wrote their answers in the chat section so the instructor could offer feedback and comments. At the end, the presenter summarized his key points and reviewed the content covered during the session.

Accordingly, the following is a representation of the study findings from the observation and interview data. These findings describe the overall essence of participants' opinions and experiences in gifted preparation and training programs in Saudi Arabia. The research findings are organized according to the research questions.

Description of the Interview Data

The interview data were transcribed verbatim to capture the essence of the teachers' responses and to form an understanding of their perspectives and opinions. I then began the coding process. An inductive coding method was used to derive code from the data. Then, I started the data analysis process, which can be divided into three phases. The first phase included reading and rereading each line of the interview responses to form a clear picture of the data and get familiar with them.

In the second phase, I started the First Cycle coding. In this phase, I used In Vivo and descriptive coding to assign codes to the data. In Vivo and descriptive coding were used to represent the teachers' own words and describe their perspectives authentically. Saldaña (2016) noted that in vivo coding allows researcher(s) to "use the direct language of participants as codes rather than researcher-generated words and phrases" (p. 61). In descriptive coding, the researcher summarizes in a word or short phrase the basic topic that appeared in the data. This coding technique was utilized to identify and describe some of the most important areas discussed in the interviews. Significantly, using In Vivo and descriptive coding in the first cycle helped me become familiar with the data and break it into concepts, allowing me to identify areas of similarities and differences in the participants' responses. Accordingly, to assign code in this phase, I followed these steps:

- I started the coding process by going through each line of the interview responses and writing down words, phrases, and quotes spoken by the teachers on colorful sticky notes. This process was repeated to ensure I covered all the data.

- I then started to go through the transcript to identify and evaluate sentences, phrases, and quotes relevant to the research questions and group them in different colors relating to different codes. These codes allowed me to gain an understanding of the main points that had been repeated throughout the data.

- After that, I began to look over all the codes in the colorful sticky notes to generate and classify patterns and find relationships among the codes to create themes. Figure 5 provides examples of this process.

Interview	Codes
I think that these programs benefit the teacher and the student because we know how to have a positive relationship with students. The first workshop I attended was about how we can interact with students and deal with their behaviors. It helped me deal with students' wanted and unwanted behaviors, and this, in my opinion, resulted in a good relationship between the teacher and the student, which will lead to a better learning environment and better achievement levels.	positive relationship behaviors achievement learning environment

*Figure 5.* Examples for the coding process

- Moreover, in the third phase, I started the Second Cycle coding. In this cycle, focused coding served as the primary coding strategy. Saldaña (2016) points out that focused coding is a strategy that involves making decisions about which codes from the first-cycle coding make the most analytic sense to categorize the data.

Accordingly, this phase involved these steps:

- Using focused coding technique, I was able to identify the most frequent and significant codes from the initial coding process. It also helped me reduce the number initial codes into fewer and more inclusive categorical codes.

- These codes were categorized into broader units, and these categories merged into overarching themes that answer the research questions. In other words, in this phase I tried to decide which codes are related and which were not sufficiently relevant. For example, some codes do not appear frequently in the data, so I decided to reject them; other codes added meaning to the data, so I categorized them into groups. These groups helped me form the themes that answer the research questions.

- After that, I started reviewing the themes to make sure they are valuable and represent the best interpretations of the data. For example, I read and reread the data to evaluate the themes again and finalize them by combining some and discarding others. In this phase, I ended up with a final list of themes. I then started to define each theme and how it helps the reader better understand the data. Figure 6 illustrates the process used in this phase.

Interview	Codes	Categories	Themes
Supposedly, as a teacher of gifted students, I need to know about the enrichment programs and the way they are prepared for the gifted. I also need to learn how to integrate these skills and programs and develop them .... We lack the knowledge and the skills to use teaching materials or at least modify our curriculum or assessment to match students' abilities. We are not aware of the recent evaluation strategies used with gifted students. I think we are still far behind.

Yes, there are issues that arise, and we need to deal with each single day. Having said that, I am kinda devastated about the support we receive from the leaders in schools and the leaders in the department of education...As a teacher who has more than 25 gifted students in my class, I need more time to do my work, and less duties that take most of my effort. This is an easy task for school leaders and administrators in the MOE. | Lack of Knowledge

Curriculum Modification

Lack of support

Leadership | Instructional Support

Administrative Support | The Need of Support and Training |

Figure 6. Sample of the data analysis process

Accordingly, Figure 7represents the data analysis process with a sample of initial codes,

categories and emerged themes.

Sample of Codes	Categories	Themes	Definition
No Support Not enough training Technology use Lack of knowledge Teaching duties Lack of policies Teaching load Duration	Instructional Support Technical Support Administrative Support	Need for Support and Training	This theme reflects teachers' opinions about the need for direct and indirect support and more training opportunities to help them be prepared for and trained to work effectively in gifted classrooms.
Training topics Time spent Too many teachers Training Content Discussed topics Trainers' experience Trainers' backgrounds	Topics addressed Duration and Number of Participants Trainers qualifications	Factors Affecting Teachers' Participations	This theme represents to the factors that affect teachers' willingness to participate in present and future gifted-focused preparation and training programs provided by the Ministry of Education (MOE) and Mawhiba organization
Differentiation Cooperative learning Self-confidence Students' Behaviors Personal growth Personal life skills	Self- Efficacy Personal Growth	Personal and Professional Growth	The theme represents teachers' perceptions about how preparation and training programs have a direct impact on their professional and personal growth
Confidence Control Positive relationship	Teaching methods	Effective Teaching Strategies	This theme reflects teachers' perceptions about how preparation and training programs positively impact their teaching skills.
Learning environment Classroom management Class time	Management skills	Classroom Management Skills	The theme reflects teachers' opinions and thoughts about the positive impact of attending courses to enhance their classroom management skills.
Training place Access issues Time Distances No Promotion	Lack clear guidelines Lack of engagement	Lack of System and Polices	This theme refers to the lack of a thoughtful and clear planning system and informative policies for preparation and training programs provided for teachers of gifted students by the MOE and Mawhiba institution.
incentives Lack of guidelines Interaction	Location Accessibility issues	Lack of Accessibility	The theme represents the lack of consistent and continuous access to the gifted-focused preparation and training programs because of the limited time, inappropriate location, and high cost
No promotion No rewards	Cost Financial incentives	Lack of Motivation	This theme refers to the lack of motivation to participate in present or future gifted programs because of the lack of financial support and incentives, rewards, and promotion for attending these programs.

Figure 7. A sample of initial codes, categories, and emerged themes.

Research Question One

What are in-service teachers' perceptions and experiences regarding gifted preparation and

training programs in Saudi Arabia?

The first research question aimed to uncover teachers' perceptions and experiences

regarding the preparation and training programs provided for teachers of gifted students to help

them effectively teach gifted and talented students. The following section includes an analysis of

the data from the interviews with participating teachers and observations of the training sessions. The data analysis revealed two main themes: (1) The need for support and training, and (2) Factor affecting teachers' participation. The first theme reflects teachers' opinions about the need for direct and indirect support and more training opportunities to help them be prepared for and trained to work effectively in gifted classrooms. The second theme refers to the factors that affect teachers' willingness to participate in present and future gifted-focused preparation and training programs provided by the Ministry of Education (MOE) and Mawhiba organization. Accordingly, the following section will unpack each theme in detail and include evidence from the participants' responses and the observed courses.

Theme 1: The Need for Support and Training

"The need for support and training" represents the first theme regarding the participants' shared experience of gifted preparation and training programs in Saudi Arabia. Support and training were consistently mentioned by all participants and is, therefore, presented as one theme. This theme reflects what the interviewed teachers said they need to work effectively in gifted classrooms. Specifically, 20 out of 20 teachers expressed the urgent need for more direct and indirect support and more training opportunities to prepare them to work successfully with gifted students. Many types of support were constantly mentioned by the participants, including: (a) instructional support, (b) technical support, and (c) administrative support.

Instructional Support

Instructional support is the first and most common need reported by the participants. The teachers said they need more instructional support and instructional-focused training to be able to provide their gifted students with more challenging and exciting material. One teacher said:

> We are in dire need [of] more training before going to gifted classes and teaching gifted students. What we need is having an intensive course that helps us understand giftedness

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and understand how to teach those students and deal with their needs. Also, I wanted to be able to run a gifted and talented class in a way that can meet their different skills. In my opinion, we don't have such experience or abilities and we need more support in that regard.

The participants also expressed a need to understand how to use and implement teaching strategies directed to gifted students such as differentiation, curriculum modification, and assessments. They also mentioned that they need more support and training so they can adjust and modify the content, process, product, and learning environment based on a student's readiness and interests. They also expressed the need to learn how to design classroom activities that challenge students' abilities and allow for more critical-thinking practices. As one teacher mentioned:

> Supposedly, as a teacher of gifted students, I need to know about the enrichment programs and the way they are prepared for the gifted. I also need to learn how to integrate these skills and programs and develop them .... We lack the knowledge and the skills to use teaching materials or at least modify our curriculum or assessment to match students' abilities. We are not aware of the recent evaluation strategies used with gifted students. I think we are still far behind.

This was echoed by another teacher who stated:

> As teachers, we had some training sessions with a professor from Riyadh, but they were not enough. What we ask [for] is support to be able to give our students activities and enrichment lessons to develop their critical thinking, problem-solving, and decision-making skills. All of these are supposed to be known as a talented teacher. All of these skills should be available for us.

The teachers also mentioned that they need more instructional support to be able to design materials and units for gifted and talented students. The teachers also voiced their frustration about the lack of direct support and training focused on how to modify instruction and design enrichment lessons for their students, which would allow for more creative instruction and up-to-date teaching practices. Said this teacher:

I would have preferred to learn more strategies for gifted education. I mean, like intensive differentiation courses because I think they are very important. We still don't have enough ideas about how to build enrichment courses or courses that promote creativity for our gifted pupils. This was what we needed and still need it. If we knew these things, we would have been in a better position as gifted teachers. Support is missing.

Another teacher shared the same concerns:

I think we can achieve better if we take courses that help us keep abreast of what is new in the field of gifted education. I had some training on the CoRT [CoRT is a teaching technique used to develop interpersonal problem solving and lateral thinking skills. It consists of six parts: breadth, organization, interaction, creativity, information, and action]. It is a training program in which we discover what giftedness is. I can shorten the phrase and say it put me on the road, but we still need a lot of courses, and we have a long way to go if we want to be teachers who can create teaching and instruction based on what our students need.

Technical Support

Besides instructional support, technical support was mentioned consistently by the participating teachers. They pointed out that they lack the technical skills and abilities to use technology or other teaching resources effectively. They mentioned that most of the training they received is theoretical and does not include practical parts to help them with their teaching skills. As one teacher explained:

As a personal opinion or a private opinion, the training that we received is not helpful to some extent. What I mean is that it is not helpful in developing the skills needed to use gifted resources. Practical skills are missing. These programs should be transformed from mere theoretical to more application programs, so teachers do not gather in a training hall and give them scientific and theoretical lectures.

Another teacher shared similar thoughts:

Most of the gifted programs do not have a practical vision. We are not trained to use equipment and techniques in our classrooms. We [teachers of gifted] rarely receive support in terms of courses and workshops. It happens once a year, and it is considered very few.

Moreover, the participants stated they need more practical training to enhance their abilities and skills to be able to use technology. The participants agreed that technology is a powerful tool that can help enhance their teaching. This notion was expressed by this teacher:

I see that some of the teachers of Mawhiba classes do not have strong experience in technology, while the gifted students love technology very much. The challenge is that those teachers are required to use technology in their instruction by the institutions [The MOE and Mawhiba]. Like, we were asked to teach online classes. Most of our work required knowing how to use technology. There is not enough training on that.

This was echoed by another teacher who recommended that the (MOE) and (KACFGC) should provide and establish a system to support their need for more technology integration:

We need greater support through the Ministry because its strength is greater than the training institute's. They must create a system of support to not only train teachers for technology use but also allow them to be knowledgeable of what is new in terms of technology. These courses can be given face to face or online.

Another teacher pointed out:

It is supposed that Mawhiba teachers are supported three to five times or courses and workshops during the year to keep pace with technical and technological developments in the world of talented people. This is more important than the session I've attended.

Administrative Support

Another type of support the participants requested was administrative support. These teachers clearly stated that they need direct and indirect support from leaders in their school or leaders in the Ministry of Education or Mawhiba. This support could be in the form of reduced teaching loads and administrative duties or more professional development time. This was indicated in these teachers' responses:

Not taking into account the issues that gifted teachers are facing in schools. Some school principals treat us as a teacher of regular classes. They don't help us with anything. On the contrary, we, as teachers of gifted and talented students, are required to do additional things and extra work for our gifted. Little help and support are really appreciated and needed in these times to do our best.

Yes, there are issues that arise, and we need to deal with each single day. Having said that, I am kinda devastated about the support we receive from the leaders in schools and the leaders in the department of education...As a teacher who has more than 25 gifted students in my class, I need more time to do my work, and less duties that take most of my effort. This is an easy task for school leaders and administrators in the MOE.

The first thing we miss and need more is the assistance from the school directors and the decision makers in the educational institutions [The MOE and Mawhiba]. I mean, the need to follow up on our needs as teachers of talented students, give us time for training, and reduce study and teaching time. Believe me, this helps us a lot, makes us innovate a lot with the students, and relieves our anxiety.

In summary, "The need for support and training" is the first theme emerged from the data regarding the participants' perceptions and experiences about gifted preparation and training programs in Saudi Arabia. Although the MOE and Mawhiba institute are trying to offer as much help as they can to support gifted teacher's needs, the teachers clearly stated that it is still far from meeting their immediate needs. They express the need for more instructional, technical, and administrative support to participate in the workshops, which will lead to more effective teaching practices.

Theme 2: Factors Affecting Teachers' Participation

"Factors affecting teachers' participation" is the second theme that emerged from the interview and observation data. This theme was mentioned by 18 out of 20 teachers and refers to different factors that determine teachers' willingness to attend and participate in present and future training and workshop sessions. The teachers described several factors, such as: (a) the duration and number of participants, (b) the quality of the content, (c) the experiences and educational background of the trainers, and (d) the relevance of the program's topics.

Duration and Number of Participants

The first factor that affects the teachers' participation in gifted preparation and training is the duration and the number of participants in the programs. In terms of duration, the participants mentioned that gifted-focused training provided by the MOE or Mawhiba differs in duration. For instance, some programs last for one to three days; others last a week. The programs also include intensive courses lasting more than three months. These differences in programs' duration partly

determine teachers' participation and attendance. This was exemplified in these teachers'

responses:

> My attendance of these courses sometimes depends on how much time I can be there. Some courses are short, and others are really lengthy courses. Personally, I prefer to attend lengthy courses. However, I can't be absent from my classes. The school sometimes is not flexible to allow us to attend these long courses. That's why some teachers miss out on wonderful and useful development opportunities.

> There is no doubt that the time and the period of the course plays an important role for being part of the course and for the teachers to learn and master the skills. In my view, the courses must be intensive so that the teacher does not feel bored and benefit from them and then apply what he/she learns with his students in the classroom.

> The training of teachers during the semester should be organized, intensive, and at short intervals so that the teacher benefits and applies it with his students at the same time. I see that the time spent in the courses is very important in the process of empowering the teacher with the skill... I agree with my colleagues, and I can say that it is true that the length of the course affects either negatively or positively our decision to participate.

> In response to your question, I attended many courses, including inside and outside the Kingdom, but I usually prefer short courses with specific times, continuous and uninterrupted. It's better than having one long intensive course within a year or two. I know many of my colleagues stopped attending many opportunities because of the time spent there. It depends on what each one of us prefers. But for me, it's always little [and] continuous is better than long [and] interrupted.

Besides duration, the teachers indicated that the number of the participants also

determined their willingness to participate in present and future gifted programs. Some of the

teachers clearly stated that they prefer programs that include a small number of participants over

programs with a large audience. According to the teachers, programs with a small number of

participants allow for more interaction and engagement. In contrast, programs with large

audiences are usually traditional, instructor-led, and lack meaningful interaction between trainers

and trainees. These thoughts are exemplified in these teachers' responses:

> The first thing that came to mind about what to look for when offered training opportunities is the number of attendees. In courses in which the number of attendees is large, it is difficult for the teacher to benefit from them. Teachers get lost, and it becomes a one-sided session by the lecturer. There isn't any type of interaction or giving and

taking between us and the instructors for the rest of the course. On the other side, courses with small numbers have a lot of interaction and are very interesting and useful. I always look for courses with low attendance.

The number of participants is important for me. It sometimes helps me with my decisions to attend the training or not. A large percentage of courses with low attendance are better for my experience. This is my personal opinion. I may be wrong, but I prefer small courses with small numbers.

Trainers' experiences and educational background of the trainer

The participants' indicated that the trainers' characteristics, experience, and educational

background also influences whether or not they will participate in a training program. These

three teachers elaborated on these factors:

Many times, I go with coaches with higher degrees in gifted education who have better skills of coaching. They simply transfer their knowledge into interactive sessions. However, not all advanced trainers have the appropriate skills. They might not be capable of educating others in the most effective way. I look for trainers who have excellent communication skills and are able to engage with participants, choose the appropriate instruction method, and apply different training techniques.

In my view, not only the course length but also the good preparation of the course is very important. For the trainer to have a clear plan, handouts, a brochure, or invitation is important. Also, the use of technology, or teaching aids. We like these types of things. It is very important for teachers to explore new ways of presenting and coaching.
I as a teacher also as a trainer look for what I need. Whenever the trainer has a clear plan for training or from the workshop, the higher the turnout. We have a list of trainers who always have the full capacity in their courses. I try to attend their courses. They have some characteristics and qualities. They are flexible, accept the other opinions, use modern techniques, communicate with the audience effectively, and think in creative ways.

I will speak about my opinion. I prefer attending the courses on the basis of clarity of content before attending. Duration of the course and the name of the trainer and his experience is also important. This is not essential in choosing the courses, but it is one of the things that I am keen to look for, and I prefer attending courses in which the interaction between the trainer and the trainee is high.

Topics addressed

Another factor that impacts teachers' decisions to attend present and future gifted

preparation and training courses is the program content. The teachers mentioned that they are

selective when it comes to participating in the training provided for them. They prefer to attend

sessions that address topics that are recent and relevant to their areas of interest. For instance,

these teachers mentioned the following:

> In fact, we do not have a large variety of course options, mostly repetitive about the characteristics of talented people and ways to identify them. But for me, I search for what benefits me and what I am into. The first thing I look for when the principal asks me to participate is the subject discussed. From the title, I can decide if I will attend or not. Many courses are not in my radar because they discuss some topics that I'm not interested in.

> As an example, I am always fanatical about scientific research and procedural research, how it is conducted inside the school and how it can affect our students. I know it can change the way we teach in everything, moving from the process of indoctrination to the process of searching for knowledge itself. That's why I always look for any opportunity to attend professional development or training that discusses these areas. I try to avoid other workshops. Any training opportunity that includes research and the research process is welcome for me.

> The topics and subjects discussed determine to a large extent the extent of my attendance of these courses. I am a science teacher and I love science, and anything related to science. I try very hard to attend any course or professional development opportunity about science. I try to stay away from courses that deal with teaching or assessment methods.

Many teachers also highlight the importance of attending courses that address current and new

trends in gifted education. The teachers mentioned that the pandemic has changed the way they

teach and students learn. Therefore, they must be aware of the new trends and teaching practices

to keep up with the rest of the world. This was exemplified in these teachers' responses:

> Usually, I'm picky about training topics. I mean, I try to enter any course offered to me. I try to read the details of each course and then decide. Example: I like and strive to attend courses that address new and up-to-date topics. I mean, for example, courses that talk about the change taking place in the world and distance education, especially after the pandemic. Things that talk about our reality and how to teach in these times.

> As many teachers of gifted and talented students are reluctant to attend programs, we need to introduce them to exciting programs such as technology, blended learning, and distance learning. They have to keep up with the world and need to

know about the latest educational technology trends. COVID-19 has changed the way we teach. Now I'm a teacher, but I worked as a school principal for more than 4 years and I know these topics attract teachers.

From my perspective, the titles and the subjects of many courses offered for us are outdated and away from the new trends. New courses must be provided to teachers. I do not say that they are not available, but very few. When opportunities and diversity in the content are available, the teachers will race and compete to participate.

Ultimately, the factors that influence teachers' participation is the second theme that emerged from the data regarding the participants' perceptions and experiences of gifted preparation and training programs in Saudi Arabia. The teachers' responses indicated three factors that determine their willingness to attend and participate in preparation and training sessions: the duration of and number of participants in the course, the coaches' experiences and education, and the relevance of the topic(s) the course addresses.

Research Question Two

What effect do gifted preparation and training programs have on teachers of gifted and talented students in Saudi Arabia?

The second research question reflects teachers' perceptions about the effectiveness and the quality of gifted preparation and training programs in the country. The participants were asked to describe how training and professional development opportunities affect their knowledge, skills, and teaching practices. Even though the teachers expressed concern regarding the availability of training sessions, many had a positive perception of the training sessions they received. Their responses revealed that attending gifted-related workshops develop their professional, personal, managerial, and teaching skills.

Accordingly, the analysis of the interview and observation data revealed three emerging themes: (1) Professional and personal growth, (2) effective teaching skills, and (3) classroom

management skills. The following section will unpack each theme in detail and include evidence from the teachers' interviews and the observed sessions.

Theme 1: Professional and personal growth

Professional and personal growth is the first theme that emerged for the data regarding the participants' perceptions of the effects of the gifted preparation and training programs they have received. Specifically, 12 out of 20 teachers mentioned that the training allowed for more professional and personal growth in terms of understanding giftedness and how to teach gifted and talented students.

For instance, many teachers talked about how preparation and training sessions allow them to change positively in life, understand giftedness, and appreciate their dealings with gifted students. These ideas are exemplified in these teachers' responses:

> These courses are very wonderful for a teacher if he takes them, knows them, and understands them...We noticed change in many aspects of our teaching. For example, these workshops changed my way of life and the way I think in general. I now understand what giftedness is and how to effectively deal with my students. It's about knowing my students' strengths and weaknesses.

> These courses, I swear, opened the way for me. Before, I did not have any experience in working with gifted and talented pupils. It opened the way for me and opened the field and broadened my understanding. They are helpful for teaching gifted students. I can shorten the phrase and say "it put me on the road". Also, this training is useful not only for students, but also reflects on my personal life.

> It's not about just attending and learning from the trainers. It's about what we got after attending these courses. Although they are not enough and have some flaws, I personally have changed in many ways. I now understand my students more, and I can tell what they need and what I should do. In other words, they allow me to love and appreciate our students and their talents.

Moreover, the teachers mentioned how these workshops have increased their self-efficacy and led to professional and personal growth. They said participating in gifted-

specialized programs helped them understand their strengths and weaknesses, which improved

their self-confidence. As these four teachers explained:

> These trainings provided us with a complete knowledge of our weaknesses. We now can identify what we need to work on and what we need to improve. I mean, it increases our confidence in ourselves and in what we can do for our students. I think this is one of the direct impacts from attending these workshops.

> The gifted training helps teachers know themselves first before knowing and understanding students and their needs. They increase our faith and confidence in ourselves and help us in deciding what we can do to achieve our class objectives. It's an important step in knowing what we need to do to respond quickly to students' needs.

> They [training sessions] are very beneficial in terms of raising a teacher's self-efficacy. I believe they play an important role not only in how we feel about ourselves, but in terms of successfully achieving our goals in our personal and work life.

> Also, they affect the personal and teaching abilities of the teachers and our thoughts, emotions, reactions, and motives. We now understand giftedness ... Other things are that attending these courses may raise the competencies of teachers with regard to their educational abilities, which directly affect our confidence in ourselves.
> Ultimately, the "Professional and personal growth" was the first theme that emerged from

the data on teachers' perceptions of the effects of gifted-focused preparation and training

programs. The teachers mentioned that the courses offer many benefits such as improving their

professional and personal skills, allowing them to understand giftedness, increasing their self-

confidence, and helping them deal with their gifted students.

Theme 2: Effective Teaching Skills

"Effective teaching skills" was the second theme that emerged in the answers to the

second research question. This theme reflects teachers' perceptions about how preparation and

training programs positively impact their teaching skills. Eleven out of 20 teachers mentioned

that these programs had improved their teaching skills and abilities in some way. The

participants provided several examples of better and more effective teaching skills they had

learned, such as how to use more modern teaching methods and strategies and differentiating

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classroom instruction. Some teachers noted that gifted-focused training allowed them to use new

teaching methods and strategies that match students' needs. As mentioned by these three

teachers:

> We now have the ability to know, and more importantly, to use the most effective
> ways to teach students in our classrooms. I mean, I now have the ability to use
> and distinguish between teaching ways and what is best for my students. That's
> why I try to attend these programs as soon as I know about them.

> There are many benefits to attending these programs. One of them is that we have
> experience in knowing the strategies and their effectiveness in our teaching. We
> also can determine what teaching approach is suitable for our students. They
> made me aware of the differences between teaching methods used with gifted and
> talented students.

> What we had from training reflects our teaching. One of the sessions I had
> focused on delivering instructions. That is, it focused on how we deliver our
> lessons to students and how we know about the most recent teaching methods out
> there.

Furthermore, the teachers reported that attending and participating in gifted training

helped them understand the importance of the differentiated classroom. The teachers said they

started to use more differentiated instruction to meet the diverse needs of each student in their

classroom. When asked about the effect of these courses, the participants mentioned:

> I attended one of the most amazing courses offered in the field of talent, and it was about
> differentiation. For me, the idea of differentiation was to change the activities offered to
> students in the classroom. This is considered excellence in my view, but after I attended
> the course, I had complete and comprehensive knowledge of differentiation. It's a method
> used by teachers to expand the knowledge and skills of each student in the class,
> regardless of his/her capabilities and differences. The goal is to raise the performance of
> all students in the class.

> In one of the courses that I attended, the trainer focused on differentiation, and that
> helped me personally and developed my knowledge and teaching skills. The trainer said
> the students have different strengths and weaknesses. The teacher can, by knowing these
> points, deal with their differences and do his best to meet the different needs within the
> class. It's about taking into account all the abilities of the students and their needs, and
> these are some of the benefits of attending courses that simulate reality in the classroom.

Another effective teaching skill mentioned consistently by the teachers is the use of cooperative learning strategies with gifted students. The participants mentioned that the training had increased their theoretical and practical knowledge about how and when to use cooperative learning strategies with students. For example, on this topic, some teachers shared that:

> The training we had helped me identify and understand some strategies in teaching. I give you an example, cooperative learning strategies. It is impossible for cooperative learning to happen in the classroom without the teacher's understanding of how to apply it, and this was one of the things that I benefited greatly from the last courses. I learned how cooperative learning has many types and how to apply each type with the appropriate unit or subject in the classroom.

> When these courses are presented correctly, they serve the student before the teacher. For example, in one of the courses, it was about cooperative learning and how to use it in the classroom. We had extensive training on using cooperative learning strategies with different subjects.

> Of course, from the opportunities provided by these workshops, and in my view, the professional development of the teacher is of great benefit. As a teacher, I became well acquainted with the latest scientific methods of teaching, especially teaching the gifted. An example of this is cooperative learning. I thought that cooperative education is good and useful in all cases with all students, but after attending some courses, it became clear to me that cooperative learning has disadvantages and advantages. The competent teacher can use it at the right time with the right person.

All in all, effective teaching skills was the second theme emerged from the data regarding the second research question. The participants mentioned that attending gifted-focused courses made their teaching more effective and developed their teaching skills. The participants also showed some indications of more effective teaching skills, such as the ability to use new and modern teaching approaches, differentiate their classroom instruction, and apply cooperative learning strategies with gifted students.

Theme 3: Classroom Management Skills

The third theme that emerged from the data regarding the effect of participating in gifted-focused training is "classroom management skills". The theme reflects teachers' opinions and

thoughts about the positive impact of attending courses to enhance their classroom management skills. Ten out of 20 teachers reported that they had improved their classroom management skills because of these training sessions. This improvement was exemplified by the teachers' ability to manage class time and deal with student behaviors. In terms of time management, these four teachers shared the following responses:

> It is well known that we as teachers spend most of our time evaluating students and sometimes developing the curriculum and doing activities. We spend many hours in these classes. Our class time is precious. So, one of the benefits I got from the training sessions is [how] to run and control class time. I become more organized, and this makes my teaching life easier.

> If you ask me what I got from the last workshop, I would say time management. I came to understand how to organize my time inside classrooms. It's important to know when to ask questions and when to listen to students or how long it will take them to complete a task. These skills are important for us, teachers of gifted students.

> The first thing that came to my mind is organizing my class time better. It's the understanding of what I have to do and how much time I need for each step of my plan. So, I think some of the workshops I had helped me better plan and organize my time in theses gifted classrooms.

> It's organizing the time which leads to organizing the classroom. The training helps me in deciding how long and how often to teach each topic. I mean, teaching gifted students involves planning, using materials and resources, and delivering instructions. The balance between these aspects requires skills and abilities. I know it's not enough, but at least we had some workshops about these skills.

Another classroom management skill mentioned consistently by the teachers was dealing with student behavior. Their responses indicated that some training sessions focused on how to deal with students' behaviors and build a positive relationship with gifted students. This, according to the teachers, allows them to foster a better classroom atmosphere. In the teachers' own words:

> I think that these programs benefit the teacher and the student because we know how to have a positive relationship with students. The first workshop I attended was about how we can interact with students' behaviors. It helped me deal with students' wanted and unwanted behaviors, and this, in my opinion, resulted in a good relationship between the teacher and the student, which will lead to a better learning environment and better achievement levels.

I can give you many benefits for the gifted courses, but one of the things I can recall is how to deal with students and build healthy relationships with students. Last month, I attended a course about how to deal with students' problems inside classrooms. This course focused on developing our teaching skills. The trainers talked about the problems that we might face and how to identify and find solutions for each one.

The last training we had taught us how to communicate, interact, and deal with the gifted student in the classroom. The training answered many questions: Who is the gifted person? Why should he/she be cared for? How is he cared for? What should be done about their behaviors? First, there must be a full belief from the teacher that the gifted student deserves special treatment, because if the teacher does not believe in that, no role will affect him.

Classroom management was the third theme that emerged from the data regarding the effect of participating in gifted-focused training and professional development sessions. The participants mentioned that the courses helped them develop their classroom management skills. They mentioned that they were trained to use time-management strategies, deal with gifted students' behaviors and build positive relationships with students.

Research Question Three

What did teachers describe as challenges to their gifted preparation and training programs in Saudi Arabia?

The third research question focused on exploring the participants' experiences and perceptions about the challenges and concerns associated with gifted preparation and training programs in Saudi Arabia. Almost all the participants (19 out 20) reported different challenges and barriers that either hindered or limited their participation in the gifted training sessions provided by the MOE or Mawhiba. The teachers stated that these challenges also weaken the benefits of these programs.

The analysis of the interview and observation data revealed three themes: (1) a lack of systems and policies, (2) accessibility issues, and (3) lack of motivation. The first theme refers to the absence of a clear and direct system and informative policy to guide the preparation and

training programs in the country. This second theme reflects the lack of consistent and

continuous access to the gifted-focused preparation and training programs. The third theme

refers to the lack of motivation among teachers of gifted students to participate in present or

future gifted programs provided for them. The following section will unpack each theme in detail

and include evidence from the teacher interviews and observed sessions.

Theme 1: Lack of System and Policies

"Lack of system and policies" is the first theme representing teachers' perceptions about

the challenges associated with gifted preparation and training programs. The absence of systems

and policy was mentioned constantly and consistently by the participants when they spoke about

the challenges they encountered and are therefore presented as one theme. This theme refers to

the lack of a thoughtful and clear planning system and informative policies for preparation and

training programs provided for teachers of gifted students by the MOE and Mawhiba institution.

Several examples of these concerns were mentioned by the participants, including the absence of

a clear timetable, instructive schedules, clear objectives, and informative policies.

The teachers complained that no clear timetable shows present and future training

programs. The teachers also mentioned they were not given a schedule for upcoming gifted-

focused sessions and workshops. They also criticized the short notice given in advance of

programs. For instance, these two teachers shared similar thoughts:

> As I said at the beginning, there is no clear system for implementing and organizing these
> training sessions from the beginning of the year. What I meant by system is a guideline or
> schedule so we can know about the time and date of each session. I think notifying us
> before it can be helpful. The problem is that they sometimes notify us a short time before
> these programs.

> We need more organized training. One of the issues that we face is the organization and
> the availability of these sessions. There is no systematic way to know about what is
> coming with the year… no advertisements, no posters, no announcements. Also, the time
> between them is unknown to us. I attended three or four workshops by coincidence.

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There are no clear ways to know about them and I think these programs should be more organized.

The teachers also mentioned the training sessions they attended are sometimes messy and lack clear guidelines. This, according to the teachers, made these training sessions ineffective. The teachers also described the programs lacked detailed guidelines that would enable them to work together and learn from each other. One teacher provided an example of this:

> Thankfully, I attended more than four different workshops. They are good in many ways. However, they don't include any guidelines to know the objectives and the goals of each session. We just sit there and listen to the trainee talking about stuff we might know. This makes them not effective. It's important to know about each workshop before attending it.

This was echoed by another teacher who criticized the organization of the training session and how this was a challenge for him/her:

> Mawhiba classes suffered because they did not have clear objectives. I believe that the teacher needs more organized and to-the-point training. The teachers are supposed to be given continuous courses with clear objectives and goals. I think and I'm sorry to say it: the trainees need more training, not us. This is a problem, because without clear guidelines those workshops become ineffective.

Furthermore, multiple educators also mentioned that sometimes the MOE required teachers to attend professional learning that does not deal with common problems they have with the students in their classrooms. The teachers believed that professional development should help them to learn how to deal with the different situations they face every day and prepare them to meet both their students' different needs and their class objectives. As these teachers explained:

> Some of these courses are obligatory for the teacher to attend, and the teacher will be punished in the event of absence. However, I think that most of the time the content of these training is not clear and more important, not related to our teaching. Not a single section talks about our actual needs.

> Some of these courses have more theoretical content than what we actually encounter in our classes. In this case, there is no effect or obvious result for the teacher when we

attend. There is nothing which we can apply in our classes. When the content is completely far from what we face daily in our classes with our students, the courses become useless.

Once, I attended a course on teaching strategies and ways to deal with students in the classroom, and the trainer talked about his experience teaching in Australia. Of course, in this case, we do not benefit from anything, especially the theoretical part. The practical part with the students is missing. There is a difference in cultures between the two countries as well. There are differences between the method of teaching, curricula, and class duration.

The teachers also reported that lack of engagement was another systematic issue affecting preparation and training programs. The participants mentioned that most of the training they had received was lectured and trainer-centered. The programs did not include engagement between the trainer and their audience. For instance, these two teachers discussed the lack of engagement in the training sessions they attended:

The system of some courses must be changed. The courses must and it is preferable to have participation between the trainer and the trainee, especially in courses such as the teaching strategies course. It is necessary to give examples and some scenarios for situations where participation, discussion and exchange of experiences take place.

We demand a change in the system, especially in the course system, so that they become more practical than theoretical. We need more active and more engaging and more interactive ways of presenting and conducting training sessions. Theoretical knowledge is important for us, but practical training is more important. That's why I demand a change in the way we are trained.

Ultimately, the lack of a clear system and informative policies was the primary challenge reported by the participants. They expressed their frustration with not having a clear system and informative policies that guide their gifted-focused preparation and training programs.

Theme 2: Accessibility Issues

The second theme regarding the challenges associated with gifted preparation and training programs involved accessibility. Poor accessibility to training sessions was constantly mentioned in the participants' responses and is, therefore, presented here as a theme. It was one

of the most-cited challenges and concerns reported by the teachers. Almost all the participants (19 out 20) expressed concern about not having consistent and continuous access to gifted preparation and training programs.

According to the teachers, this lack of continuous access limits or hinders their participation in present and future preparation and training programs. The teachers mentioned that it might be difficult to participate in regular training sessions due to the sessions' inconvenient schedules and locations, and (sometimes) high cost.

In terms of time, some teachers clearly stated that they were not given time to attend workshops. Some teachers blamed the lack of time on their high teaching load. They said they have many school responsibilities, so they want administrators to redesign the timing of trainings, reduce teaching loads, and devote more time for professional development sessions to increase their learning opportunities. On this topic, some teachers shared that

> You know, we face many issues, but the most obvious one is time. It's always about not having enough time. We barely have time to get these courses. You know, I teach more than 24 credit hours each week, and I have more than 30 students in my classes. I don't think there is time for me to go and attend any of these classes. It's just impossible. That's why we always ask our principals to give us more professional development time.

> The courses up to this moment are still lacking in the system. The majority of gifted teachers have classes, which means that during the courses, there are classes in addition to caring for the gifted. This causes them an abnormal crisis in the issue of time, to the extent that the majority of the gifted teachers refuse to teach in gifted classes next year or the second year.

> Time is a problem for teachers because they are supposed to have their own schedule. I mean the teaching schedule. Also, the duration of these classes is another problem. They can't attend other training classes because they have other jobs to do. We have classes to teach and reports to turn in and students to assess. If we had less classes, we could go and participate...We always ask for less teaching time and replace it with more professional development.

> I was a physics teacher and I had 22 classes to teach each week for the entire semester. I also had a curriculum to review. It's a lot of responsibility inside and outside the classrooms. I am responsible for more than 90 students, and I have to save time and also,

I am supposed to attend courses to develop myself in my field. How can we find time for all of this?

It's all about not finding time to participate in one of the courses. To be honest with you, I had some opportunities to attend a program about differentiation and parallel curriculum, but I didn't go because of the time. I couldn't find time to do it. Besides teaching our kids and writing assessment reports, we have some administrative duties we have to do.

Another accessibility issue that arises from the data is location. Teachers clearly stated that the locations where the training programs are held is often a challenge. The teachers explained that, generally, most training takes place in the big cities, which forces them to travel from city to city. This sometimes make it difficult for them to attend the sessions.

The following participants' responses outline these concerns:

Praise be to God, as talented teachers, we have noticed a very high demand for courses in recent years, but sometimes the location of the courses is far from the teachers, so we find some teachers reluctant because of the location. It is a problem that needs to be fixed by providing more programs in all cities.

I think one of the reasons behind teachers' dissatisfaction with the programs and courses is the distances and the lack of alternative availability. Most of the courses are held in the major and big cities. They might be far away from the teachers. Some of them need to travel to participate in these programs.

Yes, I, myself, had some training but it was self-effort. I travelled to a nearby city in order to attend some of them. Most of these courses are designed for teachers in big cities and teachers who teach in well-known schools. For us, some of these training sessions are inaccessible because of that. We asked for more opportunities and for all teachers across the country.

One of the issues that we face is the places where these programs are taking place. It's not always available for us. This is one of the things that the Ministry of Education has to work on. The training should be available and accessible for all teachers in all areas in the country.

Finally, the teachers highlighted that the cost of some of the training sessions is an obstacle to learning and improving their teaching skills. Although the MOE and Mawhiba provide teachers with free training sessions from time to time, some licensed programs are paid.

Teachers must pay out of pocket to participate and develop their skills. For instance, these three

teachers stated:

> For three years, I attended the International Exhibition of Educational Supplies in Dubai at my own expense, and it was expensive, but as a teacher I was passionate about science and knowledge. I attended for three days and every day I attended from three to four workshops and was digging into them regarding talent and technology. If you ask me, I can't do it again. I would love to, but I can't afford going again. It's costly.

> Frankly, there is a shortcoming in the subject of training, I mean, it will be personal and expensive, I mean, teachers are personally interested in developing themselves in the field of giftedness. I myself went to Jordan and took a course to guide the talented. I studied there for a while. It was all on my own account. There were no incentives and bonuses.

> It's all about the cost, if you ask me. There are many training programs that are not free and require us to pay for them. They cost a lot of money, and we can't simply afford them. That's why we started looking for free training programs. The paid programs are usually certified by the MOE or Mawhiba but the trainers are known in the educational field.

Accessibility is the second theme that emerged from the data regarding the challenges and

concerns associated with the preparation and training programs. The teachers reported that time,

location, and high cost are all accessibility issues, which either limit or prevent their participation

in gifted-related training programs.

Theme 3: Lack of Motivation

Lack of motivation is the third theme that emerged from the interview and observation

data regarding the challenges associated with gifted preparation and training programs.

Seventeen out of 20 teachers indicated that lack of motivation is a challenge to their participation

in gifted-focused training sessions. The teachers mentioned they have lost the motivation to

participate in training because of the absence of financial support, rewards, incentive pay or

possibility of promotion.

The teachers expressed their concerns about the shortage of funding from the Ministry of

Education and Mawhiba institution for training and preparing teachers to teach gifted students.

This shortage of funding decreases their motivation to attend future gifted-focused training programs. These four teachers shared the following responses:

> Most of our work depends on material, especially in courses. When I want to get materials and I want to make educational bags, sometimes I have to pay on my own. I spend more of my personal money on gifted materials than I receive from school or the ministry. No official support is given when going to these lengthy workshops...The financial support is weak, and that's why I quit going to these courses.

> First, we need financial support. Second, we need empowerment. Empowerment in establishing partnerships that generate funding. Finding budgets from parties outside the ministry... Also, the ministry should provide more financial support, rewards, and incentives to attract teachers, because the competencies exist but they need incentives. None of that is available for us.

> The budgets allocated to these courses are all very weak. There is no budget allocated for gifted and talented teaching. The courses need a lot of effort and support to develop them over the coming years. Immediate financial support would be helpful.

> I would say it is all about the money. If they gave us some assistance or a little increase in our stipend to attend these courses, we will be the first to participate. We ask for money because we will sacrifice our time and effort. That's why we ask for a refund. Furthermore, the participants also believed that financial support should come in the form

of career promotion. That is, the teachers reported that they were not getting any type of promotion as a reward for attending and participating in these short and sometimes long workshops, which decreased their motivation and kept them from attending future programs. The teachers also mentioned that financial or career promotion would have motivated them to share the knowledge they gained during these workshops with their colleagues. As clearly stated by these three teachers:

> The subject of training, I mean, it will be personal and costly, I mean, the teacher is personally interested in developing themselves in the field of talent. I myself went to Jordan and took a mentoring course for talented people. Frankly, it is a personal effort, but at least, I should have been promoted. I've been asking for a promotion for years now. Nothing happened. It's devastating.

> If you ask me, I would say that we need more push. Like promotion. I know we benefit professionally from this training, but we don't get any other benefits like promotion or qualifications. This is almost non-existent. I speak from experience, and I do not know

the other areas. This kept us away from these courses. Unfortunately, we could have benefited ourselves and our colleagues.

More rewards and promotions are needed… You know, If I didn't get any reward whatsoever, why would I go again and devote my time and effort? We understand the difficulty of getting direct financial rewards, but at least we could get promoted as a reward for our effort.

I will talk about my case. Teaching the gifted is becoming harder than I thought. I lost the motivation I used to have. I decided to stop participating in any course offered for me. There are no moral incentives such as vacations, increases, and there are no material incentives, like promotion or an increase in the salary. These types of assistance and rewards could have changed my opinions a bit.

Surprisingly, besides the lack of financial and promotion, losing the passion to teach gifted students another challenge that decreases teachers' motivation to attend future gifted programs. Some teachers reported that they had stopped attending training courses because of their lack of passion for teaching gifted students. This lack arose for different reasons, including but not limited to lack of support, heavy teaching and administrative duties, and losing the desire to teach. This was exemplified in these three teachers' responses:

I will be honest with you, there is a need to attract more teachers because not all teachers have this passion and love for this field. If you lost the desire to teach gifted students, it would be difficult to devote your time to teaching these students. This is true for many teachers and for me also. We are not passionate about teaching in gifted classrooms because of all these duties and responsibilities. It's more than what we can bear.

The problem that many of us face is losing the passion for teaching due to the heavy burden on us as teachers of gifted students. I, like many others, have lost our enthusiasm for self-development and stopped pursuing courses because of many problems we have. Also because of the lack of appreciation we get from everyone. I was offered more than one program and I did not go because there is nothing to be excited about.

If a teacher is passionate about teaching gifted students, he will accept to enter talent classes...Some teachers avoid teaching in gifted classrooms knowing that there are no incentives unless they have a passion and love for this field only. Many have lost that type of passion.

Ultimately, lack of motivation is the third theme associated with preparation and training program challenges in Saudi Arabia. The participants mentioned that they had lost the motivation

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to attend and participate in gifted-related training sessions because of the lack of financial support and incentives, rewards, and promotion. Their lack of motivation to attend training was also linked to reduced desire to teach gifted and talented students.

Chapter V: Discussion, Implications, and Conclusions

This chapter provides an extensive discussion of the study results. It begins with an overview of the study findings, followed by an interpretation of the analyzed data and how these findings relate to the literature review. The discussion is organized according to each research question. The chapter also involves a discussion of the implications of the study and recommendations for practice, policy, and future research.

An Overview of the Results

The first research question unpacked GT teachers' perceptions regarding the preparation and training programs. Two themes were identified to answer the question about the need for support and training and the factors that affect teachers' participation. The first theme reflects teachers' opinions about the need for more direct and indirect instructional, technical, and managerial support from the MOE and Mawhiba institute, as they feel the current support is not enough to meet their needs. Also, the teachers expressed the need for more training opportunities to prepare and train them to work effectively in gifted classrooms. The second theme refers to the factors that affect teachers' willingness to participate in present and future gifted-focused preparation and training programs. These factors are the duration and number of participants, the quality of the content, the experience and educational background of the trainers, and the relevance of the program topics.

The second research question asked teachers to describe their perceptions about the effectiveness and quality of gifted preparation and training programs in the country. The participants were asked to describe how training and professional development opportunities affect their knowledge, skills, and teaching practices. Three themes pertinent to this question were identified: (1) professional and personal growth, (2) effective teaching skills, and (3)

classroom management skills. Even though the teachers expressed some concerns regarding the availability of training sessions, many had positive perceptions of the training sessions they received. Their responses revealed that attending gifted-related workshops help them develop their professional, personal, managerial, and teaching skills. The first theme – professional and personal growth – reflects teachers' opinions about how the training they have received led to more professional and personal growth in terms of understanding giftedness and how to teach gifted and talented students. The second theme, effective teaching skills, reflects teachers' positive perception of how the preparation and training programs improved their teaching skills and fostered more effective teaching practices. The third theme, classroom management skills, reflects the participants' perceptions about how attending gifted-focused training improved their classroom management skills, including their time-management strategies, how to deal with gifted students' behaviors, and build positive relationships with students and their parents. The third research question explored the teachers' experiences and perceptions about the challenges associated with gifted preparation and training programs in Saudi Arabia. The analysis of the data revealed three themes that answer the research questions: a lack of clear systems and policies, lack of accessibility, and lack of motivation. The first theme, lack of systems and policies, reflects teachers' opinions about the absence of a clear and direct system that includes the offered training sessions and informative policy to guide the country's preparation and training programs. This second theme, lack of accessibility, refers to the lack of consistent and continuous access to gifted-focused preparation and training programs because of the teachers' limited time to participate, inappropriate locations, and high cost. The third theme, lack of motivation, refers to not having the motivation to participate in present or future gifted

programs because of the lack of financial support and incentives, rewards, and promotion as a result of attending these programs.

<h2 align="center">Discussion of the Findings</h2>

The following section provides an extensive discussion of the study findings. Specifically, each research question is thoughtfully linked to the literature review.

Research Question One

What are in-service teachers' perceptions and experiences regarding gifted preparation and training programs in Saudi Arabia?

The first research question aimed to explore teacher's perceptions and experiences regarding gifted preparation and training programs in Saudi Arabia. The findings from the interviews and the observations surfaced two main themes: The need for training and support, and the factors that affect teacher participation. Accordingly, the following section includes a discussion of each of the themes and is linked to the literature review.

The Need for Support and Training. One of the most-cited findings of this study is the concern expressed by teachers about the dire need for more support and training opportunities to prepare and train them to work effectively in gifted classrooms. During the interviews, almost all the participating teachers expressed their frustration over the limited support and training opportunities they have received as teachers of gifted students. They clearly stated that there are many types of support they are missing, including instructional, technical, and administrative support.

The first type of training and support that was missing is instructional support. This type of support refers to the theoretical and practical knowledge that allows teachers to deliver successful and effective lessons, including how to use interactive and engaging teaching

strategies and techniques, understand students' characteristics, create effective assessments, locate useful materials and resources, and build a learning environment that supports students' needs. The findings from both the interviews and observations confirm that this type of support is missing in the Saudi context. The provided professional development programs lack the instructional depth the teachers require to teach gifted and talented students. Most of the programs offered by the MOE and Mawhiba institution focus on increasing the teachers' theoretical knowledge. They lack the practical knowledge and skills teachers need to understand how to provide effective gifted classroom teaching. This finding reminds us about the importance of providing preparation and training programs that focus on equipping teachers of gifted students with instructional knowledge and skills and the information and resources they need to design and implement lessons that meet students' different needs and interests. Teachers without the appropriate practical skills may lose their excitement and passion for designing challenging materials and meeting their student's needs. This finding is also supported by the observation data. Almost all the observed training courses described different theories of gifted education without emphasizing the practical skills required to implement them.

Another type of support that was missing, according to the interviews and observation data, was technical support. This refers to the lack of support directed toward increasing teachers' technical skills and ability to use digital tools or other teaching resources effectively. The technical skills teachers need include the ability to use technology to deliver their classroom instruction. The participants expressed their urgent need for advanced technical and technological training in order to meet their gifted students' different needs. The teachers complained about not being trained to use technology, as most of the professional development programs they had attended focused on theoretical knowledge rather than practical skills. This

finding reminds us about the importance of increasing teachers' digital literacy and the need to equip them with the skills they need to use technology in the most effective way in gifted classrooms. The use of technology in gifted classrooms has a great impact on the learning experience of both teachers and students (Periathiruvadi & Rinn, 2012).

This finding is supported by an abundance of research that indicates that Saudi teachers lack the digital literacy that enables them to effectively integrate technological tools into their teaching practice (Alqurashi et al., 2017; Almutairi et al., 2020; Alshareef et al. 2022; Alshehri, 2018). Digital literacy involves understanding how to access, manage, and use technology and different technological tools for educational purposes. In a research study, Alshareef et al. (2022) found that the use of technology among teachers in gifted classrooms is limited and inadequate. Saudi teachers of gifted students lack the skills that enable them to use technology to modify and differentiate their instruction. Other reported factors included access to resources, resistance to technology use, and lack of confidence in their digital abilities. Alshareef and colleagues indicate that the most commonly cited reason for the lack of technology integration among Saudi teachers in gifted classrooms is inadequate professional development and training (2022). Therefore, one way to respond to these issues is to provide and offer more professional development opportunities that focus on increasing the digital literacy of teachers of gifted students.

In addition, administrative support is another concern underlined during the observations and interviews. The participants noted two main issues associated with the need for administrative support: reductions in teaching loads and other duties, and more professional development time. In terms of teaching loads, the teachers clearly expressed their frustration with being overloaded with school schedules and time spent every day on administrative work.

They are required to teach five to six classes per day, which may sap their energy and motivation to find or sometimes attend appropriate training sessions. Also, the MOE provides schools with a unified curriculum that must be completed by the end of each semester. Besides teaching loads, the teachers complained about other administrative tasks and duties that limit their teaching time. This includes supervising bus arrivals, students' recesses, and submitting weekly lesson plans. This finding resonates with research that emphasizes teachers' time as a valuable resource, especially for teachers who work in a challenging environment or teach gifted students. Alamer (2014) pointed out that one challenge that teachers of gifted students in Saudi Arabia encounter is a heavy teaching load. With minimal support, teachers must complete the teaching and other non-teaching requirements within a limited time. Although teachers try to follow the Ministry of Education requirements and fulfill all their duties, it's still difficult for them to find time to attend professional development sessions. They need more support from school leaders, policymakers, and decision-makers that could be provided by reducing the high teaching burden placed on teachers of gifted and talented students, reducing their other responsibilities, and more importantly, allowing them to devote more time to professional development. Without attending the appropriate training programs, teachers of gifted students will struggle to teach gifted and talented students in the most effective fashion.

       Factors Affecting Teachers' Participation. Another theme that answers the research question regarding teachers' perceptions and experiences about preparation and training programs in Saudi Arabia is "Factors affecting teachers' participation". This theme reflects teachers' opinions on what either motivates them or acts as a barrier to their participation in the available programs. The interview and observation data revealed three factors: the duration and number of participants in the program, the experience and educational background of the trainer,

and the relevance of the program topics.

According to the MOE and Mawhiba, professional development and training programs on giftedness in Saudi Arabia were developed to provide teachers with opportunities to learn, reflect on, and apply new teaching techniques and strategies (Mawhiba, 2020). These programs differ in their methods of delivery and duration. For example, some programs last a long time, such as three months, one month, or three weeks. Other programs are shorter and can be finished in 1 to five hours. The participants highlighted several factors that affect and inhibit their participation in professional development programs. The findings reveal that the duration of the programs could positively or negatively affect the teachers' willingness to participate and attend these programs. In other words, there is an obvious relationship between training session duration and teachers' motivation to attend. Some teachers prefer long-term training programs that cover more areas and address more objectives and goals. They also usually include more practical components besides theoretical knowledge. However, other teachers are more willing to participate in short-term programs they can fit into their school schedule and teaching loads.

Besides program duration, the number of participants is another factor that motivates or demotivates teachers to participate in gifted-focused training sessions. Almost all the interviewed teachers reported that they prefer training sessions with a small number of participants that allow them to focus and get the full attention of the trainer. It was clear from the observations and interviews that teachers in large training sessions get lost and miss interactions due to the large number of participants, which decreases their engagement in the training. The higher the number of participants, the harder it is for them to engage and ask questions, and otherwise participate. This reality was clear in the observed courses, which included more than 1000 teachers. It was difficult for the audiences to interact and engage in the training session. The audiences were

listening all the time, and their role was passive. This is supported by research that explains that teachers are less likely to participate in large professional development programs due to the lack of engagement between the presenter and the participants (AlQarni, 2010).

This is an important finding because it can explain one of the factors that leads to resistance or hesitation to attend training programs among Saudi teachers of gifted students. This resistance or hesitation can be caused by the duration and the number of participants in the offered courses. That is why the MOE and Mawhiba need to "advertise" their programs to motivate teachers to participate and be active learners. These institutions must provide more information, justify the program durations, and identify the targeted audience for each session. This will clarify the misconceptions among teachers and ensure more participation in training programs.

Another factor that determines teachers' willingness to participate in the training programs is the experience, skill, and educational background of the trainer. This factor explains how the experience and educational background of the trainer(s) plays an important role in teachers' attendance. According to the teachers, experienced and expert trainers always have a combination of skills and techniques they use to interest their audience and increase the quality and effectiveness of the offered programs. These trainers are more creative and flexible, and their sessions are interactive and engaging. On the other hand, teachers mentioned that some presenters lack the ability to transfer their knowledge in a successful or interesting way, while others lack communication and creative and flexible thinking skills. This lack of experience and knowledge in the field of gifted education decreases the quality of the training, and that demotivates teachers to attend. This finding explains why some training sessions offered by the MOE and Mawhiba are overcrowded with followers and participants, while others have very few

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participants. This reminds us about the need for reform in how the training sessions are offered for teachers. The MOE and Mawhiba must emphasize the importance of attending training sessions, regardless of who is providing them. Also, they need to clarify that all trainers are qualified and hold professional licenses to train teachers of gifted students. Providing such information will ensure that the offered training sessions are not exclusive for "certain names" in the field of giftedness in the country.

The final factor reported by the participants is the content and topics addressed in the training sessions. In other words, the content of the programs determines teachers' willingness to participate, as they tend to search for professional development and training opportunities that discuss topics related to their areas of interest. The participants mentioned that they carefully select training sessions that best meet their specific needs and can positively influence their teaching practice. Some teachers prefer programs on differentiated instruction and creative lessons, which help them improve their teaching practices. Others prefer programs that equip them with the knowledge they need to understand their students, such as how to identify gifted and talented students, understand their characteristics, and deal with their social, emotional, and intellectual needs. In other words, the teachers search for training programs that respond to their instructional and practical needs. However, many teachers complained that detailed information about the programs is often unavailable. There is no system or website they can log into and look for programs that fit their time, location, and interests.

These findings resonate with research studies (e.g., Al Dalham, 2018; Alshareef et al., 2022) that highlight that little information can be found about present and future gifted professional development and training programs, a situation which affects teachers' attendance. More detailed information about the content, the topics addressed, and trainers' qualifications is

needed to encourage higher attendance among teachers of gifted students.

Research Question Two

What effect do the gifted preparation and training programs have on teachers of gifted and talented students in Saudi Arabia?

The second research question explored Saudi teachers' perspectives on the positive/negative effects of the country's gifted-focused training and preparation programs. Findings from the interviews and observations revealed that teachers have positive perceptions of their experiences in the training sessions. Three themes reflect these positive perceptions: Professional and Personal Growth, Effective Teaching Skills, and Developed Management Skills. Accordingly, the following season includes a discussion of each of the themes and is linked to the literature review.

Professional and Personal Growth. One finding from the study reveals that preparation and training programs have a great impact on teachers personal and professional growth. Most participants believed that attending training programs improved their understanding of gifted education and gifted and talented students. This growth, according to the participants, is manifested in their improved teaching practices, increased self-confidence in their abilities, and better understanding of gifted students' strengths and weaknesses. In terms of teaching practices, the teachers mentioned that, after attending training sessions, they knew their students better and could easily understand their gifted characteristics, qualities, and behaviors. This finding emphasizes the importance of providing teachers of gifted and talented students with the training they need to achieve personal and professional growth. Personal growth relates to the teachers' ability to deal with gifted and talented students and understand their strengths and weaknesses. Personal growth also manifests in teachers' increased sympathy and care for their students' needs

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and efforts to match and respond to these needs. Professional growth manifests in the extent to which the teacher can set achievable expectations for his/her students and uses the most effective strategies to meet these expectations. Professional growth can also be achieved by creating welcoming classroom environments that address the cognitive, physical, emotional, and social needs of gifted students (Davis & Rimm, 2011), providing engaging and intellectually challenged instruction (George, 2013), and implementing differentiated classroom instruction to maximize students' potential (Tomlinson & Imbeau, 2010).

This finding explains the importance of offering more preparation and training programs that shape teachers' knowledge and understanding of giftedness and improve their teaching practice. Offering more practical and teaching-focused professional development opportunities will help teachers recognize and deal with the specific needs of their gifted students. In these training sessions, teachers not only gain a better understanding of the characteristics of gifted students but also learn how to appreciate and accept all the children in their classroom and their different needs. Also, preparation and training programs provide opportunities for teachers to evaluate their current teaching practice, habits, and behavior with an open mind and work to modify them based on students' needs.

Besides improving teaching skills, trainings also increase teachers' confidence in their own abilities and skills. Self-efficacy reflects teachers' beliefs about their ability to plan, organize, and implement modified lessons that gifted students need to reach their educational goals. This was clear through teachers' responses, in which they clearly stated that training has been an effective way to build and maintain their self-confidence and push themselves to reach their highest potential and be successful teachers. This will reflect positively on how gifted students are taught and the way teachers deal with their students' short and long-term needs.

Also, providing educators with good training opportunities helps them better understand their strengths and weaknesses. This finding is supported by an abundance of research (e.g., Chamberlin & Chamberlin, 2010; David, 2011; Vatansever Bayraktar et al., 2019) that supports the idea that training for teachers of gifted students are among the most important reasons for the teacher's high self-confidence and abilities. By attending training courses, teachers are more able to express themselves easily, set realistic expectations and targets for themselves, and understand their skills and abilities.

Effective Teaching Skills. The second theme that emerged from the interview and observation data was "effective teaching skills". Many teachers mentioned that participating in gifted-focused workshops enhanced their teaching abilities and skills, including their ability to use modern teaching methods, differentiate their classroom instruction, and design more engaging and interactive activities, use technology use, differentiate, and create parallel curricula. That is because the workshops trained teachers to use modern teaching strategies that promote the creation of engaging, interactive, and differentiated classrooms. This finding is also supported by the observations, as almost all the observed training sessions focused on improving teaching practices and using effective and recent teaching gifted-related materials and resources. For instance, one of the observed classes focused on planning creative lessons, while the other was related to understanding the most recent teaching methods.

This finding is related to understanding the impact of training on the development of teachers' classrooms' practical skills, and what teachers need to conduct effective and successful gifted classes. Most of the teachers linked their participation in workshops with their ability to deliver classroom instruction that meets gifted students' needs. When teachers can participate in different professional development sessions throughout the year, their teaching skills improve,

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which in turn inspires and influences their teaching practices such as lesson modification, collaboration, differentiation, and communication. It was clear the teachers believe there is an obvious relationship between attending professional development sessions and an increase in their communication skills in and outside of the classroom. Communication skills bridge the gap between the teacher and a student's needs.

In addition, the study findings also reveal that attending preparation and training programs motivates teachers to differentiate their classroom instruction. Differentiation is a teaching method that helps teachers' address gifted students' various learning needs, regardless of the students' academic and social differences (Tomlinson & Imbeau, 2010). When teachers use differentiation, they put students at the center of teaching and learning, which is the ultimate goal in gifted classrooms. Teachers become more aware of how to change the level and content of their lessons, assignments, and activities to help gifted students overcome difficulties and be more engaged. This finding also explains the importance of participating in training programs that provide teachers with resources and materials that allow them to adapt or differentiate the curriculum plan. In terms of the Saudi context, Alshareef et. al., (2022) found that the use of differentiation among Saudi teachers is limited. Teachers of gifted students in Saudi Arabia need to be trained about strategies they can use to ensure effective differentiated classrooms. Roberts and Boggess (2012) indicate that using differentiated instructional methods in the classroom helps meet the academic, social, and emotional needs of gifted students.

Classroom Management Skills. Another theme that represents teachers' perceptions about the effect of preparation and training programs was classroom management skills – the techniques and practices that help teachers organize, prioritize, and develop a supportive educational environment. This finding suggests that there is a link between gifted focused

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training and improved classroom management skills. This improvement was exemplified by the teachers' ability to manage class time and deal with student behaviors.

In terms of time, it was clear that attending preparation and training programs impacted teachers' ability to manage their class time effectively. There are many techniques and strategies that they learn through different training programs, such as setting aside time for instruction, time for interaction, and time for assessment. These time-management skills also help teachers balance classroom goals and each student's needs. Through training, the teachers become more aware of how to prioritize their time and how much time they spend on each task. This finding resonates with Al-Shabatat's study, which indicates that time management has always been a concern for teachers of gifted students; therefore, more training on improving these skills is always preferred (2014). Teachers of gifted students need to acquire time-management skills that allow them to organize their in-class and out-of-class time. This includes setting aside time to design lessons, search for appropriate materials and resources, choose the appropriate instructional delivery approach, start and end the class, and provide enough time for each task.

Besides time, the findings suggest that building a learning environment and dealing with students' behaviors are other skills learned through training. Training helps teachers establish positive relationships with students and deal with unwanted behaviors inside classrooms. This finding is important because it explains the impact of these skills in helping teachers foster a welcoming classroom atmosphere, which leads to a learning environment based on respect, support, and love. For gifted and talented students, such an environment is crucial in order to encourage independence, increase motivation, and promote the self-efficacy of individuals from all backgrounds (NAGC, 2020). Also, the daily interactions between teachers and their students impacts their emotional, social, and intellectual well-being (Capern & Hammond, 2014). Hence,

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training teachers to create and build positive relationships with students leads to better learning opportunities and outcomes for gifted and talented students.

Research Question Three

What did teachers describe as barriers to their gifted preparation and training programs in Saudi Arabia?

This research question explored the challenges teachers encounter in their gifted preparation and training programs. Research on gifted preparation and training programs in Saudi Arabia has highlighted some of these challenges, and the current study findings are in line with these findings. The interviews and the observation data reveal several challenges that hinder or limit teachers' participation in gifted training sessions provided by the MOE or Mawhiba. These challenges include a lack of systems and policies, program accessibility, and motivation. Accordingly, the following section includes a discussion of each of the themes and is linked to the literature review.

Lack of System and Policies. The first theme that emerged from the data was "lack of systems and policies". Teacher participation in gifted training sessions is linked to two main concerns that are related to each other: systems and policies. To begin with, "lack of a system" reflects the absence of a clear planning system that includes all past, present, and future training programs. The data from the interviews and observations revealed that preparation and training programs in Saudi Arabia do not follow a specific system that includes a well-structured timetable and schedule for all programs. This point was reflected in teachers' responses, which indicated that they missed some of the training programs because they simply did not know about them. Also, during the observed courses, most of the questions asked by the participants

focused on the times and dates of future training sessions. It was clear that there is no system teachers can log into and locate current and future training programs.

This finding suggests that providing teachers with a specific system or plan may help them locate training sessions that match and respond to their instructional and professional needs. Such a system could also help them find training programs aligned with their teaching schedule and personal interests. In other words, having at least a one-year schedule of upcoming sessions could allow teachers to plan what sessions to attend and for what purposes. It is important for educators to create an annual plan and prepare to choose sessions that best meet their needs.

In addition, one of the issues associated with gifted-focused preparation and training programs provided by the MOE and Mawhiba institution is a lack of policy. This issue refers to the absence of informative policies that organize and direct the work of trainees and trainers. The teachers expressed their frustration about not being able to understand the training objectives and goals. There is no information or clear policies that organize how to conduct these programs and what objectives must be addressed. Also, there are no policies that organize how these programs are conducted, how their effectiveness is determined, how participating teachers' satisfaction rates are measured, and whether the programs are accessible and available to all teachers. This finding is important because it illustrates that having clear procedures and policies helps not only the training institutions but also allows educators to enjoy smooth, well-organized sessions. When clear procedures are in place, time and resources will be used more effectively, and the institution's goals will be achieved. Significantly, these findings resonate with research (e.g., Alzahrani & Althaqafi, 2020; Sywelem & Witte, 2013) that raised these issues about training programs in Saudi Arabia. According to Alzahrani & Althaqafi (2020), most training sessions

directed at teachers of gifted students are individual efforts that lack organization and organized

work. The "professional touch" needs to be there to make it easy for both trainers and trainees.

This can be done by having clear policies that guide both groups.

Lack of Accessibility. The second emerging theme regarding the challenges associated

with gifted preparation and training programs in Saudi Arabia is their poor accessibility.

"Accessibility" refers to the difficulties and issues that prevent teachers from participating in

training programs provided by Mawhiba or the MOE. The teachers clearly expressed their

frustration over three factors that work as inhibitors to their participation: time, location, and

cost.

In terms of time, several teachers mentioned lack of time as the biggest issue they face

when trying to attend any training courses. Most of their time is devoted to teaching schedules,

so they cannot find enough time for training courses. In fact, "conflict with school schedules"

was the most-repeated sentence in the interviews with teachers. "Conflict with school schedule"

refers to the school schedule that each teacher must stick to every day. Also, teachers were more

likely to complain about not being notified soon enough about upcoming training courses to

avoid schedule conflicts, which decreased their chances of attending. This finding explains that a

lack of time may lead teachers to feel overwhelmed and miss their training priorities. Although

the participants expressed their frustration about heavy workloads that limit or reduce their

enthusiasm to find or attend professional development courses, teachers are required to attend a

minimum number of hours of training throughout the year to fulfill their training requirements.

However, the requirements make it difficult for teachers to find the free time to attend the

sessions that meet their needs. These findings are supported by an abundance of research (e.g.,

Alshumaimeri & Almohaisen, 2017; Alzahrani & Althaqafi, 2020; Lian, 2014), which identified

time shortages as a major barrier to teachers' participation in professional development sessions.

Another accessibility issue mentioned by the teachers was location. Due to the size of the Kingdom of Saudi Arabia, the location of the training sessions was often considered a major obstacle to attending professional development courses. Most teachers expressed their frustration over having missed a number of great learning opportunities in the gifted and talented field. Although teachers are typically motivated to improve their knowledge of giftedness, the places where the training programs are held are often hard for the teachers to travel to. This finding explains the disadvantage of providing in-person training sessions in different cities across the country. Most professional development sessions are held in urban areas that are far from many small or rural areas. A failure to provide different training opportunities locations not only reduces the chances of teachers' participation but also limits the spread of useful knowledge among teachers. Significantly, this finding illustrates the dire need to provide more options for the delivery of preparation and training programs such as in-person, hybrid or blended, and online courses. This will ensure more opportunities and a larger number of participants from all over the country.

The final mentioned accessibility concern was cost. The participants expressed their frustration over the high cost of many gifted-focused programs. The high cost negatively impacted teachers' participation, as they must bear most of the financial cost of their professional development. It appeared in the data that teachers must not only pay for the training but also their travel costs and sometimes, additional workshop fees. This finding highlights the need to provide more financial support for all teachers to participate in training programs. This will increase their motivation and result in greater participation. This finding resonates with the Qablan et al., (2015) study which explored teachers' perceptions about the barriers they face when participating

in Saudi training programs. They found that financial cost was one of the barriers that kept teachers from pursuing many beneficial opportunities.

Lack of Motivation. The final theme related to the challenges associated with preparation and training programs in Saudi Arabia was lack of motivation. This lack of motivation derives from factors including but not limited to the absence of financial support, rewards, incentive pay, or the possibility of financial and grade promotions. In other words, participants said that providing them with financial support is a motivational tool that increases their interest in attending more training sessions in different regions of the country. Aljughaiman et. al. (2015) studied gifted education in Saudi Arabia and identified the problems facing gifted and talented students and their teachers. One issues was a shortage of funding. The institutions responsible for gifted education in Saudi Arabia did not offer incentives such as credits or promotions to teachers to encourage them to participate in training and workshops that develop their theoretical and practical skills. This lack of financial support decreases the number of offered courses and participation among teachers of gifted students. This finding underscores the importance of creating a reward system in which teachers are offered financial incentives and support as a result of their participation in training programs. Such support will improve teachers' motivation and increase attendance rates. Cannaday (2018) reminds us that motivation is considered one of the factors that increases teachers' attendance in professional development opportunities.

Recommendation and Implications

This dissertation has explored teachers' experiences and perceptions about preparation and training programs for teachers of gifted and talented students in Saudi Arabia. The results of this study provided significant insight into how teachers are prepared and trained to work in

gifted-student classrooms. However, the study participants raised several issues and concerns that need to be addressed by the MOE and Mawhiba institution regarding the preparation and training that is meant to help them work effectively in gifted classrooms. Some of these issues are related to decisions by policymakers, while other concerns involve the content and organization of the programs. Based on these findings and to better serve the teachers' training needs, several recommendations for policy, practice, and for future research are proposed.

For Policy

One of the main goals of this dissertation was to understand the current GT practices and identify teachers' needs in terms of preparation and training programs in Saudi Arabia. The study findings indicated a huge gap in expectations between teachers and policy and decision-makers in the MOE or Mawhiba institution. The participants reported some concerns regarding the support they receive from policymakers and expect immediate direct and indirect support to better serve the gifted students in their classrooms. Some of the reported issues include lack of accessibility and lack of a clear and easy-to-follow system. Therefore, in order to respond to these concerns and provide a healthy and more productive training environment, two policy recommendations are suggested: (1) establish a gifted and talented professional development management system, and (2) make training and professional development programs more convenient and flexible.

Most of the participants mentioned that preparation programs in Saudi Arabia do not align with a specific system that organizes when and how training programs are held. Therefore, the first recommendation is to establish a gifted and talented professional development management system that includes weekly, monthly, and annual training events for teachers, principals, and coordinators who work with gifted students. The system should also include a

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well-structured and flexible timetable for both trainers and trainees to help them determine their training ideas and needs. This system can help all educational organizations (e.g., the MOE, Mawhiba, public and private universities, and the Technical & Vocational Training Corporation) to work together and offer training programs for teachers all year round. In such a system, trainers would be able to log in and input information about their prospective training sessions such as the topic, time, objectives, targeted audience, and intended outcomes. Teachers then can access the system and choose the programs that match their schedule and area(s) of interest.

This recommendation is supported by research (Alzahrani & Althaqafi, 2020; Sywelem & Witte, 2013) that explored teachers' perceptions about the current professional development practices in the country. Although the teachers in both studies appreciated the training, they mainly complained that the programs were poorly organized and did not follow a clear and organized system, which prevented them from participation in the programs. This is why establishing a management system will help the various training programs around the country operate more professionally. Such a clear system will not only save time and effort but also prevents misunderstandings, repetition, and overlap of some professional development sessions.

The second policy recommendation is to make the training and professional development programs offered for GT teachers more convenient and flexible. Most study participants expressed their frustration about not being able to attend training programs because of time conflicts or the location in which the sessions are held. Wynants and Dennis (2018) mentioned that convenience and flexibility are significant factors that make professional development programs meaningful and useful. Thus, the MOE and Mawhiba institute must work on delivering more convenient and flexible professional development and training opportunities in terms of time, location, and mode of instruction and delivery.

In terms of time, the participants mentioned that most of the training sessions are held during their instructional and class time. Also, they complained about having heavy teaching loads that prevent them from finding time to attend the training programs. Hott and Tietjen-Smith remind us that more training time and lower teaching loads will lead to more effective, productive, and motivational teaching practices. In contrast, heavy teaching loads lead to less productivity and less motivation in terms of attending training sessions (2018). In the Saudi context, Alshumaimeri and Almohaisen (2017) have stated that professional development activities suffer from a lack of attendance because of time conflicts and teaching loads. They added that these programs "should be planned within the teachers' load to help them allocate adequate time for participation" (p. 192). Hence, policymakers are encouraged to increase their efforts to reduce GT teachers' teaching loads to allow for more training and professional development time.

Also, there must be flexibility in the mode of delivery. That is, the training programs should use different and flexible approaches including in-person, online, or hybrid sessions. Having a variety of training modes will allow teachers to choose programs that are both convenient and suitable for them. Flexibility in delivery modes and more online programs will allow the MOE and Mawhiba to deal with unexpected circumstances. For example, when COVID-19 hit globally, tens of educational institutions were closed across the country. As a result, thousands of programs and training sessions were canceled. Hybrid and online programs could have helped overcome these issues. Therefore, policymakers have to work to increase the number of online training sessions because they provide flexibility and benefits such as increased participation and learners' autonomy (Wynants & Dennis, 2018).

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For Practice

One of the main goals of this dissertation was to offer an understanding of what teachers in Saudi Arabia need to effectively teach in gifted classrooms. This goal was achieved by giving the teachers an opportunity to freely voice their perspectives and concerns about the way they have been prepared and trained to teach gifted and talented students. While some participants had positive perceptions about some of the training sessions, others clearly expressed concerns about the lack of informative and practical components that enhanced and improved their teaching practice. Some of these concerns are related to the content of the training workshops; other issues are related to how the sessions are delivered. Therefore, based on the study findings, two recommendations for practice are suggested: (1) preparation and training programs should focus on practical skills rather than theoretical knowledge, and (2) the MOE and Mawhiba should establish a platform through which they can consult teachers about future preparation and training programs.

First, one theme mentioned consistently by the participating teachers was that the training they received did not improve their teaching because most of the programs focus on theoretical knowledge rather than the practical skills they need to lead effective gifted classrooms. Therefore, preparation and training programs should focus on practical skills as well as theoretical knowledge. Theoretical knowledge and practical skills are fundamental components of any effective and efficient professional development program. They are intricately interwoven and should not be separated (Smeby & Heggen, 2014). Focusing on one component and neglecting the other will detract from the significance of the other, which weakens the quality and effectiveness of the program. Theoretical knowledge helps people understand a concept and how it works, whereas practical tips allow teachers to apply the new knowledge in their

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classrooms. That is why professional development that focuses on theoretical knowledge must be supported by practical skills development (Bates & Morgan, 2018).

In addition, some participants mentioned that the topics addressed in the training programs do not respond to their instructional needs or match their personal interests. To address this issue, the MOE and Mawhiba should establish a platform through which they can consult teachers about the topics addressed in present and future preparation and training programs. In this platform, teachers should play an active role in the decision-making process regarding the places and times where these programs are conducted. They also should be given the option to decide the content of the training programs and which topics should be covered. This information and more can be gathered from teachers using surveys, questionnaires, and open-ended questions so their opinions and preferences can be taken into consideration when designing future training programs. Alshehry (2018) reminds us that the educational system in Saudi Arabia should provide more opportunities for teachers to be a part of their training and involved in its design and implementation, which will ensure successful and meaningful professional development programs.

For Future Research

This dissertation explored gifted-related preparation and training programs in Saudi Arabia. It gathered perceptions and experiences of a group of teachers who were teaching in gifted and talented classrooms across the country. The results provide partial insight into how teachers are prepared and trained to work in gifted classrooms. It is believed that more research is needed to paint a full picture and to add to the research on gifted preparation and training programs in Saudi Arabia. Therefore, two recommendations for future research are offered: (1) future research should involve participants from the MOE and Mawhiba program, and (2) future

research should be conducted nationally and include a larger number of teachers who teach gifted and talented students at different educational levels.

First, this dissertation outlined teachers' perceptions about the quality and effectiveness of the gifted-related training programs they have attended. Though many participants had positive perceptions of these programs, several concerns – such as the lack of support and organized training opportunities – were raised. On the other hand, the MOE and Mawhiba consistently claim that enough support and training opportunities are provided to teachers (Al-Ghonamy & Al-Badawi, 2015: Mawhiba, 2019). To understand the full picture, future research should examine the perceptions of decision-makers and policymakers from the MOE and Mawhiba institutions. Including such stakeholders will shed light on their opinions about the training provided for teachers. It will also allow for a clearer picture of the availability, quality, and effectiveness of current training practices. Also, understanding the two perspectives will bridge the gap between teachers' and decision-makers' expectations in terms of training and offered support.

Second, this study explored the perceptions and experiences of only 20 teachers of gifted and talented students in Saudi Arabia. These teachers hold licenses to teach in gifted classrooms in public and private schools across the county. Also, the data were collected through semi-structured interviews with the teachers and observations of the training sessions provided by the MOE and Mawhiba. This limited sample and the qualitative nature of the study limit generalization of the findings, even in the Saudi context. Thus, future research should be conducted nationally and include a larger sample size and more data collection methods such as surveys and questionnaires. More participants and different data collection methods would

broaden the scope of the research and provide a clearer picture of how teachers across the country perceive the training sessions provided by the MOE and Mawhiba institution.

Conclusion

The goal of this dissertation was to explore teachers' perceptions and experiences regarding the way they have been prepared and trained to work with gifted students in Saudi Arabia. It also aimed to examine the quality, effectiveness, and availability of training programs in the country. To achieve these goals, a qualitative approach was employed for the data collection and analysis process. Specifically, the data for this study was collected through semi-structured interviews with 20 current GT teachers and the observation of several training sessions offered for Saudi teachers who teach in gifted classrooms. The data were analyzed using multiple-cycle coding, constructing categories, and generating themes that answered the three research questions.

The study findings suggest that although the MOE and Mawhiba institute claim that they understand teachers' concerns and offer many types of support, the teachers clearly stated that these efforts are still far from meeting their needs. The teachers expressed a need for more instructional, technical, and administrative support to participate in the workshops, which will lead to more effective teaching practices. Also, the findings describe certain factors that determine teachers' willingness to attend and participate in gifted-focused preparation and training sessions. These factors were the number of participants in the course, its duration, the trainer's experience and educational level, and the relevance of the topic(s) addressed in the course.

Moreover, when describing how training and professional development opportunities affect their knowledge, skills, and teaching practices, many teachers had a positive perception of

the training sessions they have attended. Their responses revealed that attending gifted-related workshops leads to more professional and personal growth, improves their teaching skills, and enhances their classroom management skills. However, when asked about the challenges associated with gifted preparation and training programs in Saudi Arabia, teachers reported several issues and concerns, including the absence of a clear and direct system and informative policy to guide the preparation and training programs, a lack of consistent and continuous access to the gifted-focused preparation and training programs, and a lack of motivation among teachers of gifted students to participate in present or future gifted programs. These barriers either hindered or limited their participation in the gifted training sessions provided by the MOE or Mawhiba.

Ultimately, it will be important to build upon the findings of this dissertation by developing a broader understanding of the training practices in the country and providing solutions for issues and concerns raised in the participants' interviews and the observed sessions. Also, this dissertation is significant in that it adds to the literature regarding gifted preparation and training programs in Saudi Arabia. I believe this dissertation accomplished its goals and bridges the gap in expectations between classroom GT teachers and policymakers in the institutions responsible for providing gifted education in the country. For a long time, the literature around gifted-related preparation and training programs in Saudi Arabia has been limited and forgotten. That is, there is a glaring lack of literature that examines how teachers of gifted students perceive the training they have received and how it has affected their knowledge of giftedness and teaching practice. Also, the research that focuses on preparation and training programs is inconsistent. To illustrate, the institutions responsible for gifted education (MOE and Mawhiba) claim that adequate and ongoing gifted-focused training programs are offered all year

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round for all teachers at all educational levels. Also, the institutions claim that they provide all types of support to respond to teachers' various needs.

On the contrary, the research indicates that gifted education is a new field in the country and further efforts are needed to prepare and train GT teachers because current gifted preparation and training programs are not doing enough for teachers. Therefore, this dissertation responds to this need by providing a deeper understanding of current gifted training practices in the country. The goals of this study were accomplished by giving the GT teachers the opportunity to express their ideas, opinions, and concerns regarding how they have been prepared and trained to work in gifted classrooms. This will settle the debate between classroom teachers on one side and policymakers and decision-makers in the MOE and Mawhiba on the other side. The findings of this dissertation take our understanding of the current situation of gifted preparation and training programs to the next level, one in which teachers freely expressed their opinions and thoughts about present and future training programs. A level at which policymakers and decision-makers in the MOE and Mawhiba institute can understand what they need to do to respond to the teachers' needs and provide more effective and practical training opportunities. With this understanding, both groups can agree on working harder to achieve their mutual goal: teaching gifted and talented students in Saudi Arabia in the most effective fashion.

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Appendices

Appendix A: Teachers Semi- Structured Interview Questions

Research Question 1

1. How long have you been teaching gifted and talented students GT?
2. Describe the process the school/Mawhiba goes through to assign teachers to classes where there are GT students?
3. What, if any, training or education did you have about GT students BEFORE you started teaching in gifted classroom? Break these up. Tell me about that training…
4. As a teacher of gifted, what do you think about the way you have been prepared to teach GT students?
   a. How well prepared did you feel?
   b. What was missing?
      What do you wish you'd had
5. Do you think that these preparation program/sessions helped you to have a deep knowledge about giftedness and GT students?
6. What do you perceive to be the most important things teachers of GT students should know about their academic needs?
1. What education about GT students or gifted instruction have you had SINCE you started working as a teacher of GT students? Were they required or encouraged by the school/Mawhiba institution? How helpful were they?

Research Question 2

2. What did these professional development activities consist of?
3. Describe any other professional development sessions or workshops that focus on meeting the needs of gifted students.
4. What did you find most valuable about these professional development opportunities?
5. How are these sessions influence your methods of teaching GT students?
6. In what ways do you think the professional development provided for teachers of GT could be improved?

Research Question 3

7. What do you need to effectively work in gifted classrooms? Do you have what you need?

8. What might allow you to be more effective?

9. What challenges do you have, as a teacher of gifted, regarding working in gifted classrooms?

10. To what extend do you receive support (i.e., professional, technical, instructional) from school leader or Mawhiba institution staff?

11. How often do you receive this type of support? How often do you need support?

12. What kinds of support would you like to receive from school leaders to teach GT students in the most effective fashions?

13. What kinds of support would you like to receive from the MOE or Mawhiba institution to teach GT students in the most effective fashions?

عنوان الدراسة: دراسة حالة: دراسة استطلاعية حول اراء وتجارب معلمي موهبة لمعرفة مدى فعالية برامج تدريب و إعداد معلمي الطلبة الموهوبين في المملكة العربية السعودية.

الملحق أ: أسئلة المقابلة للمعلمين / للمعلمات

Research Question1

1. منذ متى وأنت تعمل/ تعملين في تعليم الموهوبين؟
2. صف /صفي العملية التي تمر بها وزارة التعليم أو مراكز الموهبة لتعيين المدرسين في فصول الموهوبين في المملكة العربية السعودية.
3. ما التدريبات وورش العمل التي حصلت / حصلتي عليها، قبل أن تبدأ بالتدريس في فصول الموهوبين؟
4. ما الدورات التي حصلت / حصلتي عليها خلال عملك كمدرس/ة للموهوبين؟ هل هذه الدورات كانت مدعومة من المدرسة / مؤسسة موهبة؟ هل كانت مفيدة؟
5. كمدرس/ة للموهوبين، ما رأيك في التدريب الذي تلقيته للتعامل مع الطلاب الموهوبين؟
   - ما الذي تحتاج إليه لكي تدرس الطلاب الموهوبين بفاعلية أكثر؟
   - ماذا تتمنى أن تغير في طريقة التدريب أو محتوى التدريب المقدم لمعلمي موهبة؟
6. هل تعتقد أن التدريبات / ورش العمل هذه ساعدتك في الحصول على معرفة عميقة بالموهبة والموهوبين؟
7. في رأيك، ما العوامل التي يجب على معلمي الطلاب الموهوبين معرفتها حول احتياجات طلابهم الأكاديمية؟
8. في رأيك، ما العوامل التي يجب على معلمي الطلاب الموهوبين معرفتها حول احتياجات طلابهم الاجتماعية والفكرية؟

Research Question 2

1. مم تتكون هذه الدورات وورش العمل؟
2. صف أي دورة أو ورشة عمل أخرى للتطوير المهني تم حضورها وكان التركيز فيها على الطلاب الموهوبين وتلبية احتياجاتهم المختلفة.
3. ما الفرص التي توفرها هذه الدورات وتعتبر ذات قيمة كبيرة في التطوير المهني من وجهة نظرك؟
4. ما تأثير هذه الدورات وورش العمل على طرق تدريس الطلاب الموهوبين؟
5. ما الطرق التي تعتقد أنه يمكن من خلالها المساهمة في تطوير وتحسين الدورات وورش العمل المقدمة لمعلمي الطلبة الموهوبين في المملكة العربية السعودية؟

Research Question 3

1. ما الذي تحتاجه للعمل والتدريس بفعالية عالية في فصول الموهوبين؟ وهل لديك ما تحتاجه؟
2. ما الذي قد يسمح لك بأن تكون أكثر فعالية؟

3. ما التحديات التي تواجهك ــــ كمدرس/ة للموهوبين ــــ فيما يتعلق بالعمل في الفصول الدراسية للموهوبين؟

4. كمدرس/ة للموهوبين، إلى أي مدى تتلقى الدعم (المهني، الفني، التعليمي) من قائد المدرسة أو الوزارة أو مؤسسات موهبة؟

5. كم مرة تتلقى هذا النوع من الدعم؟ كم مرة تحتاج إلى دعم؟

6. ما أنواع الدعم التي ترغب في تلقيها ــــ كمدرس للموهوبين ــــ من قادة المدارس لتعليم الطلاب الموهوبين بفعالية عالية؟

7. ما أنواع الدعم التي ترغب في تلقيها ــــ كمدرس للموهوبين ــــ من وزارة التعليم أو مؤسسة موهبة لتعليم الطلاب الموهوبين بفعالية عالية؟

Appendix C: Observation Protocol

Location		Date	
Title		Number of teachers	
Start time		Length of observation	
Materials used		Presenter	

Event	Descriptive notes	Reflective note
Content		
Organization		
Standards		
Interactions		
Resources/Materials		
Strategies		

Appendix D: Observation Protocol (Arabic Translation)

عنوان الدراسة: دراسة حالة: دراسة استطلاعية حول اراء وتجارب معلمي موهبة لمعرفة مدى فعالية برامج تدريب و إعداد معلمي الطلبة الموهوبين في المملكة العربية السعودية.

نموذج الملاحظة

	مكان البرنامج		التاريخ
	عنوان البرنامج التدريبي		عدد المعلمين المتدربين
	مده البرنامج		مده الملاحظة
	الادوات المستخدمة		اسم المدرب / المحاضر

ملاحظات وصفية	ملاحظات عامة	العناصر
		المحتوى التدريبي
		التنظيم
		المعايير
		التفاعل
		التجهيزات والوسائل المستخدمة
		المنهجية المتبعة

Dear teacher of the gifted,

My name is Khlood Alshareef, a PhD student in the Department of Curriculum and Instruction at the University of Arkansas. I am requesting your participation in a research study designed to explore to Saudi teachers' perceptions and attitudes regarding the quality and effectiveness of gifted teacher preparation and training programs in Saudi Arabia. I am also interested in understanding what Saudi teachers need in terms of support to work with gifted students in the most effective fashion.

Please be assured that there are no expected risks associated with this study. Your participation in this research is completely voluntary. All information collected from this research will remain confidential to the extent allowed by the law and University policy. No identifying information, such as name, job title, or work location, will appear throughout the study.

If you have any question or concerns about the interview, please contact me (Khlood Alshareef) at (kkalshar@uark.edu) or my dissertation chair Dr. Marcia Imbeau at (mimbeau@uark.edu).

If you are interested in participating in the study, please reply to this email with "YES". I will follow up with you to determine the best time for the interview.

Your time and help are greatly appreciated.

Sincerely,

Khlood K. Alshareef
PhD student, Gifted Education
Department of Curriculum and Instruction
University of Arkansas

Appendix G: IRB

UNIVERSITY OF
ARKANSAS

To: Khlood Khaled Alshareef

From: Douglas J Adams, Chair
IRB Expedited Review

Date: 02/01/2021

Action: **Expedited Approval**

Action Date: 02/01/2021

Protocol #: 2012304328

Study Title: Case Study: Exploring Inservice Teachers Perceptions and Experiences of the Effectiveness of Gifted Preparation and Training Programs in Saudi Arabia

Expiration Date: 01/18/2022

Last Approval Date:

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

Adverse Events: Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: Marcia B Imbeau, Investigator

Appendix G: Informed Consent

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Researcher(s):
Khlood Alshareef, Graduate Student
Students' Advisor: Dr. Marcia Imbeau, Ph.D.
University of Arkansas

Department of Curriculum and Instruction
College of Education and Health Professions
Fayetteville, AR 72701-PEAH 123
(479)575-3570
mimbeau@uark.edu (Dr. Marcia Imbeau)
kkalshar@uark.edu (Khlood Alshareef)

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Compliance Contact Person:
Iroshi (Ro) Windwalker, CIP
IRB Coordinator
Office of Research
Compliance
109 MLKG Building
University of Arkansas
Fayetteville, AR 72701
479-575-2208
irb@uark.edu

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Description: The purpose of the case study is to explore inservice Saudi teachers' perceptions and attitudes regarding the quality and effectiveness of gifted teacher preparation programs in Saudi Arabia. Moreover, this study aims to determine whether the professional development sessions that Saudi teachers have attended increase their understanding of giftedness and prepare them to productively teach in gifted classrooms. You will be asked to join a semi structured interview to provide your perspectives about the support/lack of support from school leaders or the Mawhiba institution regarding teaching in gifted classrooms. The time of the interviews will be scheduled according to your convenience and availability. The interview session will be **audio recorded** to capture information generated through the discussions.

Risks and Benefits: There are no expected risks associated with this study. The data will be collected through observation and interviews. However, the benefits will be related to understanding how inservice Saudi teachers of GT are prepared to teach in gifted classroom.

Voluntary Participation: Your participation in this research is completely voluntary. You are free to choose to participate or not as you wish. You also can leave the study any time.

Participant's Expected Commitment: The total time expected to complete the tape-recorded interview will be 90 minutes. For validity purposes, five teachers will be asked to check their responses and my interpretations of their responses.

Confidentiality: All information collected from this research will remain confidential to the extent allowed by University of Arkansas policy, State and Federal Law. No identifying information, such as name, job title, or work location, will appear in any publication or report resulting from this study. Also, each participant will be assigned a code to serve as a pseudonym to protect the identity.

Right to Withdraw: You have the right to refuse to participate in the research and to withdraw at any time and for any reason. Your decision to withdraw or refuse will bring no negative consequences.

Informed Consent: I, ……………………………………………………………………., have read the description, including the purpose of the study, the procedures to be used, the potential risks and the confidentiality, as well as the option to withdraw from the study at any time. Each of these items has been explained to me by the investigator. The investigator has answered all of my questions regarding the study, and I believe I understand what is involved. My signature below indicates that I freely agree to participate in this study and that I have received a copy of this agreement from the investigator.

_____   _____

       Signature   **Date**