REEM JAWABREH

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PERCEPTIONS AND ATTITUDES OF PRE-SCHOOL TEACHERS TOWARDS GIFTED CHILDREN AND THEIR EDUCATION IN PALESTINE

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Approval

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Declaration

I hereby declare that all information, documents, analysis and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

Reem M. Jawabreh

30/5/2022

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Abstract

Perceptions and Attitudes of Pre-School Teachers Towards Gifted Children and Their Education in Palestine

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Based on the fact that education is at the core of Palestinian ideals, the Palestinian Ministry of Education and Higher Education adopted an inclusive education policy with the goal of integrating all students into the educational system, regardless of their abilities, talents, and disabilities. As a result, the Palestinian government is seeking to develop educational practices that are adaptable to the needs of all students, including gifted children. The aim of this current study is to explore the perceptions and attitudes of pre-school teachers towards the characteristics of gifted children and their education in Palestine. For this purpose, the researcher adopted a sequential explanatory mixed-method approach, which combines qualitative and quantitative methods. The quantitative data was collected by two scales, "Scale for Rating the Behavioral Characteristics of Gifted and Talented Students" and "Scale for Attitudes towards Gifted Education". The quantitative approach consisted of two samples which were randomly selected: the first sample, which consisted of (450) participants, and the second sample, which consisted of (330) participants.

The qualitative data was collected by semi-structured interview, which 20 female pre-school teachers took part in. The quantitative findings indicated that teachers had positive perceptions and attitudes regarding the characteristics of gifted children and their education.

This was consistent with the findings of qualitative data that indicated the teachers were aware of the characteristics of gifted children and their education, and they had positive perceptions and attitudes towards them. The qualitative findings also demonstrated the variety of educational strategies and programs that were used to teach gifted children.

The study concluded with a number of recommendations for policymakers, practitioners, and Ministries of Education, along with prospects for future research.

Keywords: perceptions, attitudes, pre-school, gifted children, education, pre-school teacher.

Özet

Filistin'de Okul Öncesi Öğretmenlerinin Üstün Yetenekli Çocuklara ve Eğitimlerine Yönelik Algı ve Tutumları

Jawabreh, Reem
Doktora, Eğitim Programlari Ve Öğretim
Mayıs 2022, 133 sayfalar

Filistin Eğitim ve Yüksek Öğrenim Bakanlığı, eğitimi Filistin ideallerinin merkezinde olduğu gerçeğinden hareketle, yetenekleri ve engelleri ne olursa olsun tüm öğrencileri eğitim sistemine entegre etme hedefiyle kapsayıcı bir eğitim politikası benimsemiştir. Sonuç olarak, Filistin hükümeti üstün yetenekli çocuklar da dahil olmak üzere tüm öğrencilerin ihtiyaçlarına uyarlanabilir eğitim uygulamaları geliştirmeye çalışıyor. Bu tezin amacı, okul öncesi öğretmenlerinin Filistin'deki üstün yetenekli çocukların özelliklerine ve eğitimlerine yönelik algı ve tutumlarını araştırmaktır. Bu amaçla araştırmacı, nitel ve nicel yöntemleri birleştiren sıralı açıklayıcı karma yöntem yaklaşımını benimsemiştir. Nicel veriler, "Üstün Zekalı ve Yetenekli Öğrencilerin Davranışsal Özelliklerini Derecelendirme Ölçeği" ve "Üstün Zekalıların Eğitimine Yönelik Tutum Ölçeği" olmak üzere iki ölçek ile toplanmıştır. Nicel yaklaşım, rastgele seçilen iki örneklemden oluşmaktadır: (450) katılımcıdan oluşan birinci örneklem ve (330) katılımcıdan oluşan ikinci örneklem.

Nitel veriler 20 kadın okul öncesi öğretmeninin katıldığı yarı yapılandırılmış görüşme formu ile toplanmıştır. Nicel bulgular öğretmenlerin üstün yetenekli çocukların özellikleri ve eğitimleri ile ilgili olumlu algı ve tutumlara sahip olduklarını göstermiştir.

Bu durum öğretmenlerin üstün yetenekli çocukların özelliklerinin ve eğitimlerinin farkında olduklarını ve onlara yönelik olumlu algı ve tutumlara sahip olduklarını gösteren nitel veri bulgularıyla tutarlıdır. Nitel bulgular ayrıca üstün yetenekli çocuklara öğretmek için kullanılan eğitim stratejilerinin ve programlarının çeşitliliğini de göstermiştir.

Bu tez çalışması, politika yapıcılar, uygulayıcılar ve gelecekteki araştırmalar için önerilerle sonuçlanmıştır.

Keywords: algılamalar, tutumları, yetenekli çocuklar, okul öncesi öğretmenlerinin, eğitim.

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List of Abbreviations

IQ:	Intelligence Quotient
SDG4:	Sustainable Development Goal 4
UNESCO:	United Nations Educational, Scientific and Cultural Organization
UNICEF:	United Nations International Children's Emergency Fund
DMGT:	Differentiated Model of Giftedness and Talent
NAGC:	National Association for Gifted Children
RSPM:	Raven Standard Progressive Matrices
TASGE:	Teacher Attitude Scale towards Gifted Education
SPSS:	Statistical Package for the Social Sciences
RCTRAS:	Reading Comprehension Test and the Reading Attitude Scale
MBTI:	Myers Briggs Type Inventory
DEF:	Drawing Evaluation Form
CASEL:	Collaborative for Academic, Social, and Emotional Learning
SEL:	Social, Emotional Learning
ANOVA:	Analysis of Variance
LIS:	Library and Information Science
CERD:	Center for Educational Research and Development
SD:	Standard Deviation

CHAPTER I
Introduction

Background of the Study

Humans are born with a set of talents, and each individual has a gift that allows them to be creative and excel, which can be developed later in life (Nulhakim & Berlian, 2020).

SDG4 is to ensure high-quality, inclusive education, which is the eighth national priority in the National Policy Agenda 2017–2022.The government aspires to build and sustain educational achievements in Palestine. As it is committed to collaborating with its partners to promote early childhood education, increase children's female and male attendance rates, and enhance the quality of education by expanding early childhood programs and pre-school education in public schools (UNESCO, 2019).

Education is a fundamental Palestinian principle, and the Palestinian Government shares with its citizens this perception and considers education a tool for resilience and empowerment. As a result, it passed the "Education Law 2017," which mandates ten years of free education for all citizens. This led to an increase in enrolment in pre-school between 2012 and 2016 by 56% (State of Palestine, 2018).

Therefore, pre-school is a sensitive educational stage and significant in the formation of a child's intelligence, personality development, desire, curiosity, and social behaviors throughout their growth stages, from birth until the age of 6 years. Moreover, early childhood education is a great responsibility that requires educators and teachers to be able to respond to children's interests, understand their age requirements, and provide an appropriate learning environment (Jawabreh et al., 2020).

Giftedness appears in early childhood, and gifted children are considered an exceptional group of children compared to other normal children. Therefore, early identification of gifted children helps to provide appropriate educational opportunities and a rich environment for the development of their talents (Karabuluta & Ömeroğlu, 2021). In addition, it can help teachers discover children's social, cognitive, and emotional characteristics, hence classifying them as gifted children with abilities that exceed their age (Insi, 2021).

Consequently, the identification of gifted individuals is critical, where teachers play an important role in the identification of gifted children. Further, gifted children differ from their classmates in terms of learning speed, depth of learning, and knowledge, and hence have varied educational needs. In this context, teachers must employ a variety of instructional strategies in order to hone their abilities to recognize the cognitive and affective needs of gifted students (Kaya, 2019).

Meanwhile, children should be provided with many opportunities to explore, learn, and develop their abilities and skills. On the other hand, pre-school teachers must be aware of their responsibilities to promote the characteristics of gifted children in order to ensure a high-quality level of education (Konrad & Gabrijelcic, 2015).

For instance, teacher nomination, testing, and parent classification are considered modern methods for identifying gifted children (Rothenbusch et al., 2018). On the contrary, the traditional methods of identifying giftedness depend only on Intelligence Quotient (IQ) or achievement assessments without the involvement of parents, teachers, or others. Consequently, these procedures produce an individual score that is supposed to be indicative of the student's performance (Biber et al., 2021).

Identification and diagnosis procedures and processes have changed over time and in light of scientific research to include a variety of instruments such as scales, portfolios, and self-ratings and nominations (Azano et al., 2017).

It is better to find the most appropriate methods for developing gifted children's potential in accordance with their interests and individual variances. They require a variety of educational experiences to develop their inborn full potential, and this is because the gifted are extraordinary children with high potential and special characteristics (Kelemen, 2010).

Gifted children differ from their peers, necessitating greater skills and effort on the part of their teachers in conventional schools. In addition, teachers in general education play an important role in the identification of gifted students. Therefore, their attitudes about these gifted children and their education in general will help teachers gain a better grasp of their own requirements in terms of gifted education quality (Akgül, 2021).

On the whole, because gifted children manifest individual development characteristics, their education necessitates specific educational, advanced curriculum, academic acceleration, supplemental classes, and highly qualified teachers to work with the gifted, as well as other aspects related to supplementary funds that should be invested in gifted children's education (Kelemen, 2010).

Besides that, gifted children have a specific curiosity: they want to understand how the entire universe operates and have the ability to contemplate reforms and improvements, as well as produce socially useful values. To make sure that gifted kids get the education they need, they need to be able to: bring problems and ask important questions that are formulated correctly and clearly; collect and assess relevant information through abstraction and interpretation; reach well-thought-out solutions and conclusions, testing them against relevant criteria; think about alternative ways of thinking; and recognize their own assumptions, their implications, and cynicism (Eren et al., 2018).

As a consequence, gifted children require a curriculum that is aligned with their advanced talents in intensity and depth, particularly in order to meet their emotional and social development (Stephens & Karnes, 2016).

According to Callahan et al. (2017), that investigated trends and future directions in gifted curriculum development, advocated reshaping gifted education for the twenty-first century, and proposed developing a new or adapting an existing curriculum to better address the abilities and interests of gifted children. In addition, (Hu, 2019) presented the best strategies and practices for supporting and improving gifted programs.

Teachers are unquestionably an essential component of gifted education. Teachers' perceptions and attitudes towards gifted education are influential in contributing to their education. Teaching necessitates teachers are being qualified in their knowledge of pedagogical and contemporary developments in gifted education. As a result, it is important that teachers have this knowledge and abilities and perform them in educational practices. Also, the teachers' training resulted in forming more positive attitudes about gifted children and their educational programs and improving teachers' self-concept and perceived self-competence to a point where they would feel sufficiently confident to get actively involved in talent development (Şahin, 2021).

Because of the importance of gifted children and their education, and based on previous studies that have been conducted, this study will investigate the perceptions and attitudes of pre-school teachers towards the characteristics of gifted children and their education in Palestine.

Problem Statement

Pre-school is an important preparatory stage. It is one of the most significant stages of life that individuals go through, as it is the first year of their future and being, and its effects remain throughout their life. Moreover, it enables children to develop socially, mentally, emotionally, intellectually, and linguistically, in addition to developing their personality. As a result, children should not be neglected (Jawabreh et al., 2020).

Pre-school gifted children have distinct abilities in academic fields, psycho-motor areas, advanced vocabulary, rapid learning abilities, early reading, ability to concentrate, curiosity, advanced analysis and synthesis capacity, having a broad imagination, having ideas and solutions, and enjoying discussions. As a result, gifted children need special education at a young age. Gifted children's characteristics can be recognized when compared to other children in the appropriate educational environments. Education for gifted children during the pre-school era would only be helpful and possible with teachers who have knowledge about these individuals. Thus, sufficient knowledge of pre-school teachers about gifted children would be extremely important in their professional lives (Uğraş et al., 2016). For this reason, pre-school teachers should be aware of gifted children so that they can identify their characteristics and potential and develop their skills, creativity, and self-motivation to learn.

Children represent at this age period a large and important segment of Palestinian society, which calls for extensive efforts to improve the conditions of this age period in Palestinian society in order to prepare the basic pillars of the human base that qualifies for development and progress (Khales, 2021).

The Ministry of Education in Palestine is responsible for pre-school education and is currently developing a national strategic plan and curriculum for Palestinian kindergartens. The plan's development is founded on the belief that children are the most important segment of Palestinian society and should be able to exercise all of their rights and meet all of their individual needs in a stimulating, safe, and accessible environment. This plan represents the interests of all

institutions and actors working in the early childhood sector in Palestine, including ministries, universities, national institutions, and international organizations, through an education program that assists teachers in efficiently teaching Palestinian students and developing their own materials and activities as part of the program (Khales & Meier, 2013).

In general, the related literature review reveals that there are few studies that address the pre-school period in Palestine. In addition, there is a scarcity of studies that explore the perceptions and attitudes of pre-school teachers, as well as gifted children and their characteristics and education.

The Palestinian situation, which is more like a struggle, not to mention the daily obstacles and difficulties the Palestinians suffer, makes life so complicated, and because children under the age of five make up a sizable proportion of the Palestinian population (UNICEF, 2018). Therefore, it is important to study the characteristics of gifted children and their education according to the perceptions and attitudes of pre-school teachers in Palestine.

Finally, the studies with pre-school teachers reveal that teachers had difficulty identifying gifted children, which was attributed to teachers' weak awareness of the characteristics of gifted children. A lack of understanding among teachers about gifted children may result in negative consequences, leading to misguided students and the fading of their abilities (Baykoç, 2011).

In brief, and in light of the above mentioned, there is a huge need for such studies due to their importance. Therefore, the present study will be used to clarify the perceptions and attitudes of pre-school teachers towards gifted children and their education in Palestine. Therefore, the main research question is: what are the perceptions and attitudes of pre-school teachers towards gifted children and their education in Palestine?

Aim of the study

The main purpose of the current study is to examine the perceptions and attitudes of pre-school teachers towards the characteristics of gifted children and their education in Palestine.

By exploring the perceptions of pre-school teachers towards gifted children's characteristics regarding teachers' academic qualifications and their years of experience, they also explore whether gifted children need a particular curriculum or not.

Additionally, by exploring pre-school teachers' attitudes towards gifted children's education according to teachers' academic qualifications and their years of experience, as well as identifying whether gifted children need a particular curriculum or not, identifying the appropriate educational strategies and programs for teaching gifted children in order to meet their needs, and determining whether the curriculum is adequate to meet the needs of gifted children or not, as a result, pre-school teachers will get insight into the giftedness, characteristics, and educational needs of gifted children.

In addition, and based on perceptions and attitudes of pre-school teachers, meaningful activities will appear to teach gifted children. Consequently, the needs of gifted children will be identified in their classrooms.

Research Questions

The first topic will explore the perceptions of pre-school teachers towards gifted children's characteristics regarding their academic qualifications and based on their years of experience, in addition to whether gifted children require a specific curriculum or not. The second topic will explore the attitudes of pre-school teachers towards the education of gifted children regarding their academic qualifications and based on their years of experience, in addition to whether gifted children require a specific curriculum or not.

Furthermore, the research questions will examine whether the curriculum is adequate to meet the needs of gifted children or not, and they will discuss the appropriate strategies and programs that are used in gifted children's teaching to promote their development in pre-school.

Therefore, the study will focus on the following main questions:

RQ1: What are the major characteristics of gifted children, according to the perceptions of pre-school teachers?

RQ2: Is there a significant difference in the teachers' perceptions towards the characteristics of gifted children regarding their academic qualifications?

RQ3: Is there a significant difference in the teachers' perceptions towards the characteristics of gifted children based on the years of experience of the teachers?

RQ4: Is there a significant difference in the teachers' perceptions towards gifted children's characteristics based on whether gifted children require a specific curriculum or not?

RQ5: What are the attitudes of pre-school teachers towards gifted children's education?

RQ6: Is there a significant difference in the teachers' attitudes towards gifted children's education regarding their academic qualifications?

RQ7: Is there a significant difference in the teachers' attitudes towards gifted children's education based on the years of experience of the teachers?

RQ8: Is there a significant difference in the teachers' attitudes towards gifted children's education based on whether gifted children require a specific curriculum or not?

RQ9: What are the preferred strategies and programs for teaching gifted children?

RQ10: Is the curriculum adequate to meet the needs of gifted children?

Significance of the Study

Previously, the term "Giftedness" only directed our thoughts to the concept of outstanding human intelligence. But now, when a gifted individual is referred to, their distinctive characteristics will be mentioned, such as: wise, quick-witted, sharp-minded, and brilliant. In addition, gifted children demonstrate their abilities through dispositions, attitudes, and behaviors that reflect their thinking (Kelemen, 2010).

The current study derives its importance from the importance of the topic that it will discuss. As a result of this study, the teachers of pre-school will be able to identify the characteristics of gifted children, and thus they will be able to boost children's talents and abilities. Besides that, this study will draw attention to important issues, which are the education of gifted children and the development of their own specific curriculum in Palestine.

When the attitudes of pre-school teachers towards the education of gifted children are considered, then pre-school teachers will provide preliminary information in the field of gifted children's needs and educational strategies that will be employed to teach them, because the teachers may have negative attitudes if they do not have sufficient knowledge about gifted children. As a result, teachers should have a fundamental knowledge of gifted children in order to be able to provide a good education to them, in addition to striving to provide an appropriate educational environment for them.

In general, the literature and previous studies addressed many topics about the characteristics of gifted children and their education. In contrast, little is known

about the perceptions and attitudes of pre-school teachers toward gifted children, particularly in Palestine. Therefore, it is important to provide pre-school teachers with pre-training in order for them to identify, understand, and know who gifted children are, what they require, and how their needs are met.

In short, this study will discuss the perceptions and attitudes of pre-school teachers about gifted children's characteristics and their education in Palestine.

On the whole, this study is gaining significance in the following points:

1. This study sheds light on teachers' perceptions towards the characteristics of gifted children and teachers' attitudes towards gifted education.
2. This study reveals the extent to which pre-school teachers are aware of gifted children's characteristics and their education.
3. This study presents images of giftedness and teachers' perceptions of gifted children and their education in order to have a better understanding and assessment of where Palestine stands in the world. Moreover, misconceptions and misdiagnoses of gifted children are explored.
4. Teachers' perceptions and attitudes of gifted children inform those responsible for pre-school teacher preparation programs regarding the educational strategies that are used in the education of gifted children and how to meet their needs.
5. The teachers' participation and attitudes provide a lens through which their successes, concerns, and challenges can be viewed.
6. There is a scarcity of studies that investigate the perceptions and attitudes of pre-school teachers regarding the characteristics of gifted children and their education. Therefore, the current study addresses a gap in the literature.
7. In addition to that, there are a few studies that adopt a mixed approach in exploring teachers' perceptions and attitudes towards the characteristics of gifted children and their education. Therefore, the current study is the first of its kind in Palestinian studies.
8. Teachers' perceptions and attitudes influence the behaviour of gifted children in the classroom.
9. Perceptions of pre-school teachers towards the characteristics of gifted children contribute to developing the appropriate strategies for gifted children's education.

Limitations of the Study

The current study is conducted in the West Bank. The Gaza Strip is however excluded from the study due to the movement restrictions imposed on its inhabitants. Given the current political situation, there is a difficulty of maintaining contact with Gaza's schools and educational institutions.

The coronavirus restricts the ability to move freely between kindergartens in Palestine's cities and villages. As a result, teachers are compelled to rely on technology, and there is a difference in teachers' efficiency in using technology.

All participants in this study are female pre-school teachers. There are no male pre-school teachers. Therefore, the two research questions that examine teachers' perceptions of gifted children according to the teacher's gender and the teachers' attitudes towards gifted children's education according to the teacher's gender are excluded.

There is a difference in naming the period in which children receive an education before entering school. Some studies use the term "Early Childhood" while others use pre-school and kindergarten. Therefore, there is some confusion in adopting the term, and some studies are excluded.

Definition of Terms

According to McDonald (2012), the perceptions can be defined as a process of selecting, organizing, and interpreting sensory information based on previous experiences and others' experiences in order to represent and understand the presented information or environment. The perceptual process begins with receiving stimulus from the environment and ends with the interpretation of that stimulation. Another definition introduces Perceptions as an individual's opinion and belief about a circumstance or person (Nel et al., 2011).

Attitudes: they are defined as set of beliefs, behaviors, and emotions toward a specific person, event, or thing. It is a learned tendency to evaluate or perceive things in a particular manner, and as a result, one can have a negative or positive perception or evaluation of specific experiences and practices. Experience, pre-expectations, and education can all have a significant impact on attitudes. In addition, the attitudes are not independent from environment or experience, therefore, the attitudes are dynamics in the sense that they are both enduring and changeable (Abun et al., 2019).

Pre-school: it refers to the period before basic schooling, when the child is prepared for entering elementary phase in the first grade, it is a critical developmental period, as well as a very important and essential period in a child's growth and development, where the foundations of their personality are laid (Turdimurodov, 2021).

Pre-school teachers: refers to teachers who prepare children during the pre-school period, where they should have the ability to provide children with learning through play, interactive activities, and encourage them lots of discussions and problem solving (Zabeli & Gjelaj, 2020).

Gifted children: they are individuals who demonstrate high performance capability in many areas, such as creative, intellectual, leadership, artistic, or specific academic domains, and who require services or activities not often given by kindergartens in order to fully develop such skills (Williams, 2019).

CHAPTER II

Literature Review

Previously, the term "Giftedness" only directed our thoughts to the concept of outstanding human intelligence. But now, when a gifted individual is referred to, their distinctive characteristics will be mentioned, such as: wise, quick-witted, sharp-minded, and brilliant. In addition, gifted children demonstrate their abilities through dispositions, attitudes, and behaviors that reflect their thinking (Kelemen, 2010).

Gifted children are defined as individuals who are capable of great achievement intellectually as well as artistically, creatively, and academically, and they need activities and services to develop their gifts. They also play a significant role in the development of society (London, 2020).

In this context, the literature review presented brief summaries of theoretical frameworks and also conceptual definitions. Therefore, this chapter was divided into five main themes, in addition to many sub-topics that are related to the headlines:

1. Giftedness
2. Gifted Children
3. Gifted Children's Education
4. Framework for Gifted Education
5. Teachers' Perceptions and Attitudes
6. The Situation of Education in Pre-School in Palestine

Furthermore, a literature review presented the previous related studies in order to find out more about the results and recommendations that already exist in the literature and how to benefit from them. The chapter was concluded with a discussion of several topics that were related to the study.

Theoretical Framework

The main aim of this study is to explore the perceptions and attitudes of pre-school teachers towards gifted children and their education in Palestine. Pre-school is really considered a sensitive educational stage because it contributes to developing children's personalities, curiosity, desire, and intelligence. It is usually referred to as "Gifted" children as those who outperform their peers in academic

achievements. However, giftedness in pre-school is not only associated with education, but it exists in both academic and non-academic domains.

1. Giftedness

1.1 Definition of Giftedness

For two reasons, according to Renzulli (1979), it is difficult to find a specific definition of giftedness. The first reason is that a definition might limit or restrict the number of performance aspects. Therefore, a definition may actually prevent a student from enrolling in a gifted program because the program may only examine academic performance and exclude other aspects such as art, music, drama, leadership, creative writing, and public speaking. The second reason is that a definition may describe the degree or level that one must attain to be called talented (Al-Hroub & El Khoury, 2018).

The United States established a committee in 1972, where Marland, Commissioner of Education, suggested a definition of giftedness that covered both performance and academic domains. In addition, the contemporary definitions have arisen from Marland, who reported that gifted children are those evaluated by professionals as having exceptional abilities and thus being capable of high performance. They are those who require specialized educational programs and services beyond those given by the normal school program in order to realize their contributions to themselves and society. Gifted children demonstrate their potential abilities in these aspects: general intellectual abilities; academic aptitude; productive or creative thinking; leadership abilities; and performing and visual arts. (Marland, 1972).

The definition and conception of giftedness have constantly changed since they appeared in the first in the theoretical literature. Until the term of giftedness became used to describe children with distinguished abilities, the traditional method of identifying giftedness was intelligence. This means that intelligence plays a role in giftedness (Biber et al., 2021). The belief that intelligence is the basis of giftedness is a reductionist approach to giftedness. However, it can be argued that such a belief is out-dated (Warne, 2016).

Giftedness is a dynamic concept that emerges as a result of interaction between the child and their teachers, family, and pupils (Yıldız & Altay, 2021).

According to London's study (2020), gifted individuals are often considered to be a homogeneous group. Therefore, the belief that there is only one level of

giftedness is wrong, as is the assumption that all athletes can only throw or kick the ball at one level, which is not true.

According to Gross (2000), there are five levels of giftedness: mildly gifted with an IQ range of 115–129; moderately gifted with an IQ range of 130–144; highly gifted with an IQ range of 145–159; exceptionally gifted with an IQ range of 160–179; and profoundly gifted with an IQ range of 180 and above.

According to Sternberg's study (2005), the traditional perspective on intelligence, which favors people with good memory and analytical ability, is unable to identify people with talent because they may not perform well on traditional exams. To address this gap, Sternberg developed the theory of intelligence into the theory of successful intelligence. This theory conceptualizes intelligence as something that emerges from a cultural context. As a result, when the most intelligent people are identified, both culture and individual abilities must be considered (Smedsrud, 2020).

In the first half of the twentieth century, giftedness was considered a high intelligence evaluated by IQ tests. So, individuals who scored 130 or above on an IQ test were considered gifted. Over time, the definition of giftedness has shifted from a general intelligence-based conception to a talent-based conception. Contemporary definitions show giftedness in a variety of forms and as a multifaceted structure that has intellectual and other individual characteristics, such as creativity and innovation. The concept of giftedness has acquired more attention and acceptance. As a result, almost all modern conceptions of giftedness include skills development. Because the definition of giftedness is relative, there isn't a globally agreed upon definition of giftedness. And because the term "giftedness" is a social construction, the definitions differ from culture to culture and time to time. The term "Giftedness" has become used to describe a human attribute that people regard as remarkable based on social comparisons (Sak, 2021).

Although definitions of giftedness are different, the characteristics of giftedness have similarities. In short, there are many different definitions and requirements for giftedness, these definitions and requirements are not always consistent from state to state and have different levels (London, 2020).

In Palestine, and according to Mansour (2006), Palestinians define giftedness as children who have four characteristics: excellence in academic achievement, the ability to adapt readily, synchronously (students who may struggle

socially or physically but are intellectually advanced), and strong motivation. The Palestinian conception of excellence in the first characteristic includes a person who possesses a wide range of information, possesses meta-cognitive abilities, transfers what has been learned and applies it to real-life situations, and embodies self-management techniques. Tremendous devotion, curiosity, and perfectionism are examples of Palestinian motivations in the fourth characteristic.

In Turkey, and according to Şahin (2013), the definition of giftedness includes personal characteristics (such as creativity, intelligence, and leadership abilities) as well as specialized interests (such as in sports, the arts, and academic fields). According to Sak (2011), there are primarily two concurrent concepts of giftedness in Turkey. It was categorized as the "trendy view" and the "worker view."

The trendy view implies that there are several intelligences, or more specifically, that there is multiple intelligence. Sak contrasts the Turkish definition of giftedness with Gardner's multiple intelligence theory. Football intelligence and basketball intelligence are examples of these multiple intelligences. In addition, Sak reported that whether or not this intelligence is scientifically verified, these perspectives are culturally pervasive everywhere in TV shows, ads, and conversations.

The popular conception of the worker view is that when someone begins their life with nothing (homeless, poor, unsuccessful, or newly employed) and then achieves success, it is through their hard work that they will become gifted; there is no relationship between genetics and giftedness; and it can only be achieved through hard work.

1.2 Theories of Giftedness

Gardner (1999) defined intelligence as "*a bio-psychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture*" (p. 34). And he declared that each person has specified strengths and weaknesses that may be determined in terms of multiple intelligences and giftedness. Therefore, this theory helps to distinguish between different human abilities.

There are theories that are based on a multidimensional understanding of giftedness. For instance, Renzulli's (2012) Three-Ring Conception of Giftedness, which has received a lot of attention in the field, seeks to depict the primary dimensions of human potential for creative productivity. The name derives from the

theory's conceptual framework, which consists of three interacting clusters of characteristics (above-average ability, task commitment, and creativity) and their relations to general and specialized areas of human performance.

In addition, Gagné's (2004) Differentiated Model of Giftedness and Talent (DMGT) defines the talent development process as the transformation of gifts, or distinguished natural abilities, into exceptional, systematically developed skills that define expertise, or talent, in a certain occupational domain. There are three types of catalysts that can help or hinder this process: (a) interpersonal catalysts such as personal traits and self-management processes; (b) environmental catalysts such as socio-demographic factors, psychological influences (from parents, teachers, or peers), or special talent development facilities and programs; and (c) chance.

Giftedness, according to Mönks (1992), is a combination of intrinsic potential and environmental influences. In his multifactor model of giftedness, he added three environmental components to Renzulli's (1985) Three-Ring concept: family, peers, and school.

2. Gifted Children

2.1 Identification of Gifted Children

It is referred to as "Gifted" children as those who differ from their peers in various aspects, including skills in cognitive, social, linguistic, personality, and mental ability and willingness to learn. These differences appear at an early age. Early identification of gifted individuals is critical. Therefore, teachers and families have a significant responsibility for identifying and developing gifted children and making provision for their appropriate education (Capan, 2010).

To ensure that gifted children are happy, self-aware, and capable of unlocking, realizing, and developing their potential, it is vital to first determine their giftedness. The first step in educating children with exceptional abilities is properly identifying and diagnosing them. It is critical to diagnose gifted children in order to provide them with the proper educational options. The sooner children's skills are determined, the more likely it is that barriers impeding their ability will be eliminated and an adequate environment for their development will be provided (Karabuluta & Ömeroğlu, 2021).

Diagnose is the process of gathering information about individuals and making decisions with regard to them. The primary purpose of diagnosis is to offer

educational opportunities that are appropriate for the development of the characteristics of gifted individuals and meet their needs (Ayas & Kirişçi, 2017).

The primary reason gifted children should be diagnosed is to ensure that they receive an adequate education. The second primary reason is that gifted children require a rigorous academic program (Karabuluta & Ömeroğlu, 2021).

According to several studies, such as Gabriela (2020) and Kaya (2020), the characteristics of gifted children should be thoroughly understood in order for them to develop, be useful to society, and discover their potential. Recognizing gifted children by individuals engaged in children's education is critical to achieving healthy development and reaching the top. If gifted children were not identified and trained in a timely manner, society would suffer irreversible losses (Altintaş & Ilgun, 2016).

Identifying gifted individuals is critical in order to provide them with appropriate educational opportunities that will allow them to realize their full potential. IQ tests are a scientific technique to identify gifted individuals by testing their intelligence and abilities. However, teacher nomination has become an alternate or first step in identifying gifted individuals (Biber et al., 2021).

As a result, the diagnosis of gifted children is a critical procedure because it ensures that they receive an adequate educational opportunity as well as a rich, qualified environment in which to develop their giftedness (Karabuluta & Ömeroğlu, 2021).

Additionally, the early identification of gifted children enables teachers to recognize their mental, cognitive, emotional, and social characteristics, thereby identifying them as gifted children with characteristics that exceed their ages (Inci, 2021).

2.2 Characteristics of Gifted Children

Gifted children are individuals who have internal experiences and cognitive skills that differ from the general characteristics, and they have developmental characteristics different from normal children. Gifted children demonstrate high expectations in cognitive skills with their creative thinking, strong imagination, high attention span, and curiosity. They are distinguished from their classmates by their rapid learning abilities and psychomotor abilities (Metin & Aral, 2020).

Further, gifted children are those who have superior academic performance compared to other children who are of the same age (Abo Hamza et al., 2020).

Gifted children have exceptional abilities to reason and learn in many mental domains such as mathematics, languages, and music, as well as motor domains such as dance, painting, and sports (Kurup, 2021).

High performance is related to one of the following areas: special academic tendency, general mental capacity, leadership qualities, productive and creative thinking, theatrical dramatic, and psychomotor ability (Argyrios et al., 2020).

Besides, gifted children have the potential for rapid learning and to use complex sentences to connect ideas together. Furthermore, gifted children can acquire literacy skills at a younger age than their peers (Ökcü & Akgül, 2021).

The characteristics of gifted children are different from those of normal children. For instance, they have a willingness to learn and have cognitive, linguistic, social, mental, and personality skills. In addition to self-perception, intelligence, creativity, and leadership ability (Bildiren, 2018c). Several studies show that these differences emerge at a young age (Bildiren et al., 2020; Kaya, 2020; Gabriela, 2020).

Additionally, gifted children have special characteristics that include accelerating learning, employing advanced vocabulary and terminology, analyzing and debating, having a high imagination, and solving problems (Uğraş et al., 2016).

Several definitions of gifted children have been proposed by different organizations. According to the National Association for Gifted Children (NAGC), a charismatic person is someone who displays or has the capacity to demonstrate a high level in one or more areas of expression. Some of these skills are general and can include many aspects of a person's life, such as creative thinking and leadership, as well as specific talents, like proficiency in physics, mathematics, or music. Furthermore, the most intelligent and gifted children are those who are recognized by professional individuals. These children require additional educational programs and services in order to realize their contribution to both themselves and society. These two definitions provide ample information on the characteristics of talented children (Argyrios et al., 2020).

Children that are gifted have the capacity to learn more quickly, to employ more metacognitive abilities, to establish faster and more accurate links between pieces of knowledge, and to be more successful at comprehending what they read than their non-gifted peers (Özcan, 2018).

Moreover, gifted individuals can acquire literacy skills earlier than non-gifted individuals. If these abilities are sufficiently supported and controlled at an early age, gifted individuals can comprehend and enjoy their reading more quickly and effectively, as well as establish a positive attitude toward reading (Ökcü & Akgül, 2021).

Gifted children are characterized as extraordinary children due to their exceptional abilities. These children may also encounter a variety of positive situations, as well as negative ones, in their school, family, and social surroundings as a result of their unique abilities, thinking, and perceptions. Therefore, they need attention and special support from their teachers. Gifted children are distinguished from their non-gifted peers by their ability to think differently, maintain heightened levels of attention, demonstrate superior cognitive abilities, and enjoy curiosity and exploring (Yıldız & Altay, 2021).

In short, gifted children are defined as individuals who are capable of great achievement intellectually, as well as artistically, creatively, and academically, and they need activities and services to develop their giftedness (London, 2020).

2.3 The Needs of Gifted Children

Gifted children possess better abilities than their peers. It is important to examine their needs and provide them with an education that is tailored to their needs and abilities. In addition to basic human wants such as nutrition, safety, love, and self-respect, gifted children's needs may differ from those of normal children due to their developmental characteristics (Aldosari, 2021).

Porter (2005) stated that gifted children's academic needs are proportional to their level of giftedness. Gifted individuals have different characteristics from normal-developing individuals. These characteristics include: strong sense of curiosity, and advanced language, a high level of activity performance and memory, and a high level of interests and goals. Therefore, gifted children need educational opportunities and services that may not always be available in traditional education programs. To address the educational needs of gifted children, motivating and creative activities that promote their interests and abilities should be offered, as well as a comprehensive education that may not be provided through normal programs. Otherwise, these students may be bored with their education or lose interest in it (Demirok, 2018).

According to Kettler et al.'s study (2017), gifted children's first need is early intervention, which enables gifted children to recognize and develop their giftedness; the second need is to adapt educational strategies to these children's abilities. However, teaching gifted children alongside normal children can be a difficulty for teachers, since it may be impossible to give two distinct curricula concurrently without providing suitable working conditions. Nonetheless, teaching gifted children as non-gifted children, or having a gifted child in a classroom without a program for identifying and developing their potential may have a negative effect on their gifted abilities. Therefore, the academic needs of gifted children must be supported.

2.4 The Obstacles and Challenges of Identifying Gifted Children

Gifted students have different characteristics from their peers, and teachers have the greatest responsibility in gifted children's education; they have to be sufficiently knowledgeable about their characteristics and capable of organizing their educational environments (Demirok, 2018).

Identifying gifted children is the first step toward serving them. Previously, children were admitted to gifted programs based on intelligence tests. However, it is readily apparent now that multidimensional assessment tools and approaches are displacing traditional or IQ-based ones, a reflection of giftedness models' progress (Cetinkaya, 2020).

Teachers may encounter a variety of challenges and obstacles when attempting to identify gifted children. Kettler et al. (2017) reported that the limited budgets, lack of government funding, the need for specialized teachers, high salaries, the high cost of teacher training, a deficiency in teacher training and adequate tests for gifted children, and limited space and time are some of the challenges that pre-school teachers face.

All of these obstacles could contribute to creating barriers to identifying gifted children. On the other hand, Gray-Fow (2005) claimed that recognizing gifted children's characteristics and behaviors is important; pre-schools may not meet the needs of gifted children, resulting in these children's behavior in a variety of ways, such as being extremely lively or extremely quiet in comparison to their peers.

In general, researchers have classified children as gifted in one of two ways. First, some believe that giftedness can be measured using IQ tests; however, another

group believes that identifying gifted children is difficult since giftedness can't be measured (Aldosari, 2021).

3. Gifted Children's Education

3.1 The Purpose of Gifted Education

According to UNICEF (1989) the Convention on the Rights of the Child states that education should aim at the "development of the child's personality, talents, and mental and physical abilities to their fullest potential."

The aim of education is not only to provide students with information but to help them understand, recognize, and apply it when necessary. Gifted children must be educated in accordance with their abilities and educational needs by using a pre-planned educational program. Therefore, it is necessary to plan activities that correspond to gifted children's levels of intelligence (Kunt & Tortop, 2017).

Therefore, the main purpose of education in pre-school is to provide educational services that are appropriate for the various needs of normal and gifted children. It may be viewed as a vital tool for increasing individuals' development levels and abilities in the society in which they reside. Gifted children develop and learn rapidly, unlike other normal children (Darga & Ataman, 2021).

Gifted learners are the lifeblood of any society, and it is critical to keep gifted children challenged and motivated. Inclusion of gifted students benefits not just the gifted student, but also the other students in the classroom. Gifted children serve as a stimulant for the rest of the class, pushing them to realize their full academic potential. Additionally, unlabeled individuals who are capable of learning at a higher level may benefit from this type of education approach, and a high level of instruction may push them in the same way gifted students are challenged in the classroom (Ninkov, 2020).

Gifted education in early childhood focuses on the encouragement of intellectual engagement and challenge in purposeful activities for children. Therefore, a high-quality early childhood learning environment must be designed to develop children's talents and abilities and also be based on activities that help children explore the world around them (Kaplan & Hertzog, 2016).

When high-ability children are forced to wait for normal children to master what they have already mastered, they will feel frustrated and bored, which often leads to undesirable behaviors. When children lack challenging lessons in their

education, the amount of time spent in school does not correspond to the amount of time spent learning (Makel et al., 2015).

The purpose of gifted education programs is to enhance students' competencies by providing them with challenging, stimulating, and engaging opportunities for talent development. Educational programs designed for normal children may not target gifted children (Kaya, 2019).

3.2 Models for Gifted Education

Education is the basis of progress and development of children's lives and is the cornerstone of every stable society. Therefore, caring and understanding for children in pre-school are essential because it helps them to learn skills and develop abilities that set the foundation for future development (Diale & Sewagegn, 2021).

Segregation, acceleration, and inclusion are the three basic educational policies for gifted students. Segregation and acceleration are two terms that refer to the process of identifying gifted individuals and placing them in segregated or accelerated classes. Acceleration can also take the form of a student skipping grades or attending school before their peers. Furthermore, the inclusive strategies for gifted students are approaches that utilize differentiation and enrichment strategies within the same-age classroom. Differentiation may include the inclusion of advanced content from higher grade levels, the development of critical thinking skills, projects and problem-based learning, as well as problem-solving skills. Gifted students enjoy challenging work and accelerated content with older students, as well as enrichment activities that are dynamic, open-ended, inquisitive, and varied, as well as customized to different learning styles (Lenvik et al., 2021).

To develop gifted children, teachers, administrators, and program coordinators must change their thinking and assumptions about giftedness and how to identify them in the early years. The change is not only in acquiring academic skills; rather, gifted children require intellectually stimulating environments that balance teacher-facilitated and child-initiated exploration. Play-based activities and artistic expressions facilitate the explorations of gifted children, which provide a rich environment for children to think critically and creatively (Kaplan & Hertzog, 2016).

Differentiated teaching is the most popular and widely used teaching method for teachers. It refers to the methodical and coordinated pre-planning of the entire teaching process, which involves both the syllabus and students in an interactive

relationship. It is determined by the students' readiness for learning, their preferred learning strategies, and their motivation for learning. All of these factors influence the context of the teaching process (Tomlinson, 2001).

Gifted children have numerous opportunities to participate effectively in a classroom while also making use of their unique abilities and talents. At this point, it's worth noting the importance of teachers' identifying gifted children and having the appropriate attitude toward them. This necessitates on-going teacher training and motivation. Further, they should be objective when evaluating gifted children, taking their educational, emotional, as well as social needs into account. Additionally, teachers must employ adaptable strategies to teach students appropriately according to the level of knowledge and skills they seek to acquire, encourage children's interests and monitor their progress through the use of a personalized educational programs (Rotigel, 2003).

There are numerous gifted education models. However, they all serve the same purpose of focusing on the characteristics and needs of gifted learners while also ensuring that they receive the appropriate method of education (Scot et al., 2009).

Given the characteristics and needs of gifted children, it is apparent that they require special attention throughout the educational process. Coleman and Gallagher (1995) were the first to mention numerous approaches related to gifted education. These methods can be implemented through enrichment, acceleration of the curriculum, and differentiated teaching (Argyrios et al., 2020).

Inclusion of gifted individuals in regular classrooms with other normal individuals may have positive outcomes because the gifted individuals inspire others, encouraging them to realize their academic potential (Ninkov, 2020).

3.2.1 Enrichment

Program enrichment is one of the strategies that are applied, which allows gifted students to obtain education alongside their normally developing peers, while also receiving depth learning (Darga & Ataman, 2021).

The term "Enriching the Curriculum" implies to the creation of more content than the curriculum provides, with the goal of broadening and deepening learning experiences. In this manner, the gifted children's abilities are utilized to the fullest extent feasible, both inside and outside of the school classroom (Argyrios et al., 2020).

Moreover, enrichment pedagogy is a term that refers to an enhanced and enriched curriculum and an educational approach that is used by teachers to engage students. In an enrichment model, students' talents and abilities should be developed along with their strengths and interests to provide them with advanced opportunities both within and outside of the curriculum. Enrichment falls into three categories: (Type I) includes general exploratory experiences that present learners with new interests and possible areas of investigation. (Type II) includes the following six categories of training activities: character development skills, cognitive thinking skills, meta-cognitive technology skills, advanced research and reference skills, written, oral, communication skills, and learning how to learn skills. (Type III) includes the examination of real-world events and problems in small groups and individually (Reis & Renzulli, 2021).

Hensley (2013) added that enrichment refers to more varied and rich educational experiences as well as a curriculum that has been adjusted to provide additional breadth and depth than is typically supplied. Enrichment programs may include ability groups within and outside of class, special classes in and outside of schools, special schools, afterschool activities, and Saturday as well as summer enrichment programs. These programs are aimed at enhancing classroom activities and curricula, as well as integrating additional materials and knowledge not covered in the classroom.

According to Davis and Rimm's study (2004), these proposed the following categorizations of enrichment programs:

1. Maximum achievement in essential skills is determined by need, not by age.
2. Beyond the prescribed curriculum, additional content and resources are available.
3. Exposure to a range of academic disciplines.
4. Content is chosen by students, including in-depth studies.
5. Complex theories, applications, and generalizations.
6. Thinking creatively and solving problems.
7. Higher-order cognitive abilities, critical thinking abilities, and research and library skills.
8. Affective development, which encompasses self-awareness and ethical development.

9. Development of motivation academically, strong career aspirations, and self-direction.
10. Development of computer skills.

Since enrichment programs are typically offered to gifted students without requiring them to skip grades, they may have fewer administrative problems than the accelerated method does. Students would either live with their peers of the same age in heterogeneous environments or study part-time in homogeneous environments with academic peers. Apart from the differentiated instruction and curriculum offered in regular classrooms to gifted students, other programs of enrichment, such as extracurricular activities, can provide gifted students with more developed learning opportunities in a variety of ways (Olszewski-Kubilius & Lee, 2004).

To challenge students and promote the development of giftedness, it is important to construct enrichment programs appropriately, and additional resources, information, and materials are especially critical for these gifted students learning in heterogeneous environments (Schiever & Maker, 2003).

Whatever type of enrichment activities a school may offer to gifted children, it is critical for teachers and administrators to be aware of these students' needs and to be well equipped with the strategies and skills necessary to conduct such programs. These programs, whether integrated into normal classes or after-school activities, can undoubtedly provide students with a variety of opportunities to expand their learning experience. It can help them develop their learning interests, nurture their giftedness and skills in one or more distinct areas, gain competence in specific areas, and achieve more (Roberts, 2005).

3.2.2 Acceleration

Acceleration is a strategy frequently recommended for gifted students. Boredom is often relieved through acceleration, which allows students to progress through an educational program at a faster rate or at a younger age than is customary. Acceleration is defined as "*matching the level, complexity, and pace of the curriculum to the readiness and motivation of the child*" (Colangelo et al., 2004, p.1).

Acceleration allows children to study at a higher level than they are currently following. In order to complete the educational levels at a younger age than the rest of the children, the child can attend an older-level class (Argyrios et al., 2020).

Rogers (2007) indicated that acceleration can take several forms and that it does not negatively affect gifted students. In its most basic form, acceleration allows a student to enroll or participate in a class based on his proficiencies rather than his chronological age (Sahin & Levent, 2015).

Acceleration can take the form of grade skipping, which is the process of passing the next grade and enrolling in the next higher grade (Dare et al., 2019). Therefore, acceleration, particularly grade skipping, is a compelling and successful approach to enhance academic achievement among gifted students (Gronostaj et al., 2016).

Different approaches to gifted education are generally supported by teachers. They, in particular, believe that acceleration is a particularly proper strategy for meeting the academic needs of gifted children. Nonetheless, experts appear to favor certain methods of identification, such as standardized testing, portfolios, teacher nominations, observations, and performance assessments (Hernández-Torrano et al., 2019).

In comparison to enrichment, acceleration is another beneficial technique and alternative for gifted students' programs. It allows students to bypass grades in order to learn at a level that is most appropriate for their academic ability (Davis & Rimm, 2004). Numerous researchers in the gifted field have addressed this topic (Gross, 2004; Feldhusen, 2003; VanTassel-Baska, 2003). Acceleration is regarded as most advantageous for exceptionally gifted individuals, and it should be appropriate and meet their individual needs. The acceleration involves grade skipping and early entry into kindergarten, school, or universities, in which students' learning is done at a faster level than usual in order to get advanced teaching appropriate to their ability or potential (Schiever & Maker, 2003).

For some gifted individuals, however, one or two years of grade skipping are insufficient (Robinson, 2003). Individual students may require further acceleration, such as early entry to universities or online distance learning courses, which provide excellent options for some gifted students, particularly those who live in rural locations (Davis & Rimm, 2004).

Acceleration has cons and pros. It may be the only method for some gifted children to meet not just their academic needs, but also their social, motor, and psychological needs. Parents and educators, on the other hand, may be hesitant to

adopt acceleration as a strategy because they assume it may disrupt children's healthy development (Muratori et al., 2003).

Acceleration appears to be one of the most researched but underutilized strategies for meeting the gifted children's needs (Colangelo et al., 2004). Teachers who are critical in recommending for acceleration are frequently hesitant, since they appear to have more negative opinions toward acceleration's effects than positive ones (Rambo & McCoach, 2012).

4. A Framework for Gifted Education

The framework for Social–Emotional Learning (SEL) developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL) served as a basis for Cavilla's proposed taxonomy of affective curriculum for gifted learners (Cavilla, 2019).

Social–emotional learning has risen to prominence as a critical component of education in recent years. Indeed, evidence indicates that affective development may be just as crucial as intellectual growth in children. However, despite evidence that its integration into the school curriculum can improve academic performance, there is a dearth of practical guidance for teachers on the best methods to deliver social–emotional learning. The need for an affective curriculum that encompasses social-emotional learning is much greater for gifted learners. These gifted children typically exhibit a high level of emotional intensity and moral awareness, but they may also be frustrated by the repetitive nature of their school curriculum. This may have a detrimental influence on the student's overall performance, resulting in a lack of drive and focus.

Derek Cavilla's taxonomy seeks not only to address the problem of gifted learners' underachievement, but help them to maximize their chances to be able to make moral and ethical judgments. In summation, it is designed to provide gifted students with the highest levels of cognitive and emotional intelligence. Up until now, there has been a dearth of support for affective development, which Cavilla developed, frequently results in poor impulse control and a proclivity to lose emotional control as a result of the diminished self-esteem associated with underachievement.

Although the majority of gifted learners develop into successful, healthy, and well-adjusted individuals, it is preferable to rethink the definition of "success," which is frequently defined solely in terms of an individual's intellectual abilities.

Cavilla says that by omitting social–emotional development, gifted learners are not realizing their full potential. According to researches, gifted learners have a greater capacity for social–emotional development. Thus, emotional and cognitive growth would seem to go hand-in-hand; by nourishing one aspect, the other also becomes enhanced.

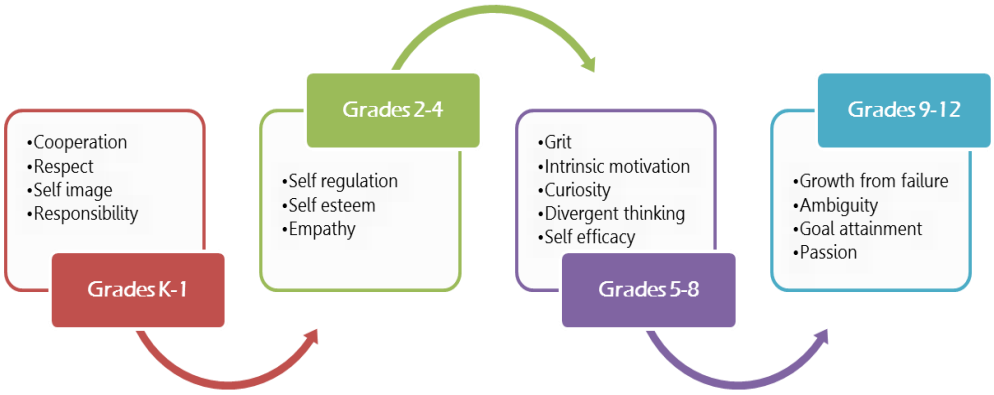
4.1 Taxonomy of Affective Curriculum for Gifted Learners

Cavilla has created a framework called Cavilla's Taxonomy of Affective Curriculum for Gifted Learners with the goal of assisting gifted learners in achieving their full potential through the use of social-emotional learning. This strategy teaches gifted children to consider failure as an opportunity in order to set meaningful goals.

The journey begins in kindergarten, a child's early years of education. During this period, social skills like cooperation and responsibility can be formed, as well as an appreciation for the value of respect. (See Figure 1).

Figure 1.

Taxonomy of Affective Curriculum for Gifted Learners (Cavilla, 2016).



Respect for the school environment and those who provide learning assists students in seeing themselves as basic participants in the setting and behaving responsibly towards others in it.

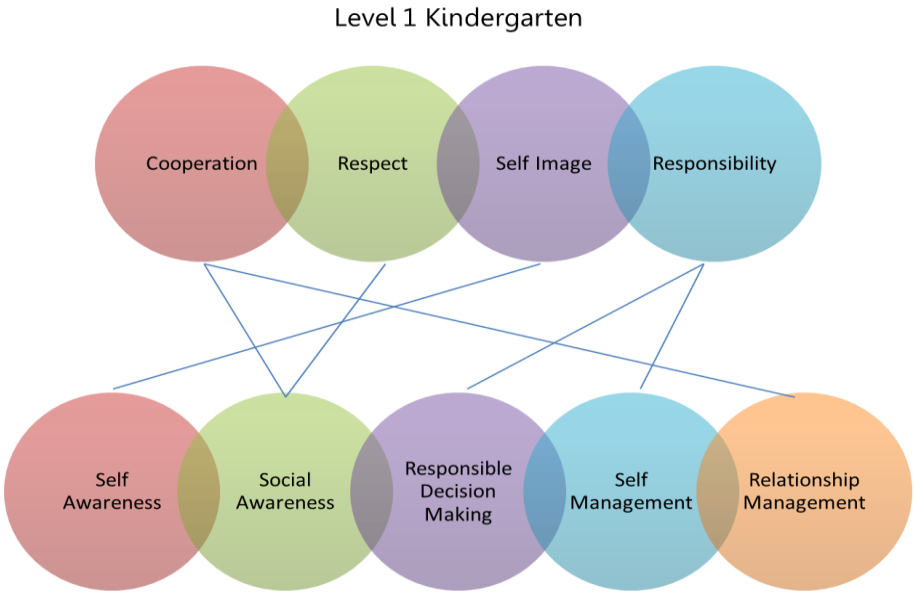
Along with cooperation, respect, and responsibility, self-image is a key construct for gifted learners who should acknowledge that their giftedness is a positive trait. In this context, it will allow the gifted learners to feel appreciated and included, allowing them to develop the intellectual and affective skills necessary to become well-rounded individuals capable of attaining their full potential.

Each of the four level 1 skills (cooperation, respect, responsibility, and self-image) in the CASEL framework is linked to one or more of five pillars: self-awareness, social awareness, responsible decision making, self-management, and relationship management.

The implementation of a framework in a classroom environment assists students in understanding and managing emotions; determining and achieving positive goals; feeling and demonstrating empathy for others; making and maintaining positive relationships; and making responsible decisions. The acquisition of these competencies might help gifted students regard themselves as successful participants in the developmental process (see Figure 2).

Figure 2.

Taxonomy of affective curriculum level 1, kindergarten (Cavilla, 2019).



According to Cavilla (2019), affective abilities such as cooperation and responsibility aim to develop the personal relationships of children through group learning as well as begin to accept the concept of the successful learner's responsibilities. The concept of respect serves two goals, and shows gifted children that different environments, such as the classroom vs. the home, have different expectations, and that in order to successfully traverse those experiences, one must abide by the system and respect the people responsible for the place. Respecting the

rights, opinions, and property of others is another aspect of respect that is shown in this period.

At this stage of development, gifted children are determining acceptable behaviour as well as evaluating how others respond to their actions, and they will rapidly formulate an internal concept of how they will choose their behaviour. Collaboration, respect, and responsibility ensure children's success in the classroom and are the beginning of forming personal relationships for them. When giftedness is included as one of the most important characteristics of children, the children will feel development and progress and will become essential parts of the community. This, in turn, will improve their personal ability to think creatively and critically (Cavilla, 2019).

CASEL's pillar of self-awareness is strongly related to self-image. Gifted children will feel powerful and distinctive rather than isolated if they develop their positive sense of self through acceptance and reinforcement of their abilities. The concept of respect is related to the pillar of social awareness, where gifted learners internalize the different points of view by demonstrating a willingness to accept others' choices and decisions in the classroom and by being aware of the teachers', schools', and peers' external expectations. Cooperation is related to the pillar of social awareness, and gifted learners must identify the common goal that they are working toward with their peers, as well as consider the strengths, weaknesses, and points of view of others. Cooperation is not limited to peers; cooperating with the teachers and following school rules is also an important component of being socially aware. Cooperation is also closely related to the framework's fifth pillar of CASEL: relationship management. Gifted learners are taking the first step in evaluating their interpersonal effectiveness and altering their approach based on reactions from peers, by learning to cooperate with others as well as with external rules. Finally, the affective construct of responsibility is related to the CASEL framework's third and fourth pillars: responsible decision-making and self-management (Cavilla, 2019).

Gifted children begin to understand their roles as successful participants in the developmental process by identifying the many tasks and difficulties that are in the context of intellectual and social growth (Cavilla, 2019).

5. Teachers' Perceptions and Attitudes

The study of teachers' perceptions and attitudes toward giftedness is an important issue in the field of gifted education. This concept is based on the belief that teachers play a critical role in identifying gifted programs for children because they are in a unique position to assess children's competence and potential in the classroom, in addition to the information provided by performance tests and achievements (Hernández-Torrano et al., 2019).

According to studies that examine teachers' perceptions and attitudes toward the education of gifted individuals, teachers who have positive attitudes support gifted individuals and try to meet their emotional, social, and academic needs. On the other hand, teachers who have negative attitudes might lead to a loss of motivation, impaired abilities, and underachievement in gifted individuals. Additionally, teachers' attitudes toward gifted children influence how they interact with students and the instructional strategies they use (Al-Makhalid, 2013; McWilliams-Abendroth, 2014).

5.1 Characteristics of Gifted Children's Teachers

Gifted children play a significant role in the development of society. Gifted children's teachers also have a critical role in developing the children. Usually, they identify exceptional abilities in their students, supervise the selection and implementation of appropriate educational approaches for gifted children, and encourage their abilities to develop. This is why high requirements are imposed on gifted children's teachers. They are expected to not only recognize their students' educational needs and design programs that promote their cognitive and creative potential, but also to have knowledge of and understanding of the nature of giftedness and gifted education (Sękowski & Łubianka, 2015).

In this context, teachers have to employ a variety of instructional strategies in order to develop their abilities to recognize the cognitive and affective needs of gifted children (Kaya, 2019).

A gifted student's teacher is perceived as a mentor and master. Croft (2003) and David (2011) both discuss the importance of teachers' attitudes and roles in the education of gifted children. However, in addition to improving teacher skills in identifying high-ability children, it should emphasize the necessity of providing students with a challenging and rich curriculum that allows them to identify their own abilities and interests (Sękowski & Łubianka, 2015).

Teachers should have a high level of knowledge, particularly in the field of early childhood education, and in this status, the teacher should focus on a variety of goals, including academically, physically, emotionally, and socially preparing children in this age period. Thus, pre-school teachers' roles are to create stimulating learning environments, encourage experimentation, extend and guide the thinking of children, and be fully aware of children's needs (Connelly, 2018).

Teachers of gifted children are engaged in the children's cognitive and personal growth. They are capable of motivating children toward achievement, inspiring them to solve issues creatively, identifying the distinctive structure of their giftedness and guiding their development. The aforementioned responsibilities of a teacher are simply a sampling of the myriad challenges inherent in gifted education. As a result, Plunkett and Kronborg (2011) emphasized the importance and need to face the challenges in order to be effective teachers of gifted children.

To ensure the gifted children's adequate learning, the pre-school teachers must have the following (Konrad & Gabrijelčič, 2015):

1. The ability to understand the nature and source of gifted children's abilities.
2. Knowledge and understanding of gifted children's cognitive, emotional, and social characteristics and needs.
3. The ability to create curricula that meet gifted children's unique intellectual, emotional, and interest needs while also encouraging independent learning.
4. Creating an appropriate and safe environment in which gifted children can express themselves is a must.

In short, because of gifted children are more strongly influenced by their teachers than other children, some qualities of teachers of gifted children should include skills in collaboration, listening, communication, adaptability, patience, empathy, being well organized, flexible, having a good sense of humor, being flexible, and understanding and accepting gifted children. Thus, the teachers become more aware of the characteristics of gifted children (Sayı, 2018).

6. The Situation of Education in Pre-School in Palestine

International pre-school education standards give the criteria for all aspects of education, including curriculum, communication techniques, teaching methods, infrastructural needs, and teacher education (Keser & Karatasoglu, 2019).

The Palestinian government decided that sector plans should be prepared in accordance with the National Development Plan 2017-2022 and the National Policy Agenda, which is aligned with the SDGs 2030, the Ministry of Education and Higher Education conducted a comprehensive review of its strategy, guided by the National Policy Agenda, Education Framework 2030, Education Review Committee's report, Education Plan Assessment (2014-2016), and strategic plan annual monitoring and evaluation. As a result, this Sector Strategic Plan focuses on topics raised in the National Policy Agenda as well as pre-school education (State of Palestine, 2018).

6.1 Pre-school Education in Palestine

Pre-school is a learning environment that provides education to children prior to the start of compulsory education at elementary school. Pre-school education seeks to provide an appropriate environment in which a child's personality can mentally, physically, and socially develop and prepare for elementary school. It gives children adequate opportunities to develop their personalities through play and other activities appropriate to their environment and age, such as picnicking, painting, reciting poems, and telling stories (Rauf & Bakar, 2019).

According to the Ministry of Education and Higher Education (2017), it identifies the conditions and terms that the pre-school cadre must meet, as well as the types of programs and curricula for this sector, and its current policy is aimed at integrating pre-schools into the formal education system and adopting a standard curriculum. It is worth noting that the two-year pre-school education stage is optional. The Ministry of Education and Higher Education has decided to increase pre-school education opportunities by increasing classrooms in governmental schools and rehabilitating their staffs. Providing pre-school services is considered to be a basic element of the inclusive approach to children’s development. Therefore, it is evident that the performance of the children who enroll in pre-schools is much better at later stages than that of those who don’t. A basic target of the current education strategy is to develop a pre-school curriculum and increase the number of licensed kindergartens which meet health, safety and professional standards. The main and specific indicators of pre-schools and their targets for 2013-2015 focused on ensuring safe and equal access to education for all. These targets can be measured through the following indicators: 1. Rate of children

enrolled in pre-schools (KG1, KG2). This is defined as the total number of children enrolled in the Pre-school Program approved by the Ministry of Education and Higher Education regardless of the age of the child at the time when they enrolled. They appear in the form of a percentage of the population of pre-school age category (4-5 years). 2. The proportion of children enrolled in government pre-school programs increased from (0.7%) in 2014 to (1.24%) in 2015. However, the new Education Law makes one year of pre-school education (KG2, sometimes known as Grade 0) compulsory.

6.2 Key Pre-School Sector's Targets

raising the proportion of female educators, principals, and supervisors in governmental and private pre-schools in accordance with strategic standards for teacher training The Ministry of Education and Higher Education is trying to achieve this goal through enhancing and developing the qualifications of women educators working in pre-schools, developing women educators' qualification standards, and training supervisors and instructors in the sector (Ministry of Education and Higher Education, 2017).

6.3 Pre-School Curriculum

The Palestinian education aims for inclusion and equality at all educational levels, including pre-school, primary, secondary academic and vocational education, higher education, research, and non-formal education. This objective has two dimensions: The first step is to increase enrolment at all educational levels, including pre-school, elementary, secondary, and higher education. The second dimension seeks to preserve enrollment and survival rates, as well as high levels of participation in schooling. In addition, the General Framework for Pre-school Curriculum was developed in accordance to the needs of children, and the national manual for pre-school teaching and learning, as well as the national manual for pre-school women educators, must be completed sector (Ministry of Education and Higher Education, 2017).

6.4 Key Challenges Facing Pre-school Education

1. Israeli occupation prohibits the building or addition of any classrooms to public pre-schools in Jerusalem, Hebron, and Bedouin communities.
2. Repeated Israeli occupation military and settler attacks on pre-schools in (close locations with the settlers and or Israeli checkpoints residents).

3. The majority of pre-school teachers do not have a background in education or child development.

Related Research

1. Previous Studies Related to the Characteristics of Gifted Children

Childhood, according to Papadopoulos's study (2021), is an important period in shaping the identities of children. The sample of the study included 108 Greek gifted children ages 5–6 years old, as well as their teachers. The Pictorial Scale for Perceived Competence and Social Acceptance was used to measure the participants' domain-specific self-concepts. Teachers, on the other hand, rated behavioural manifestations of self-esteem using the Behavioural Academic Self-Esteem Scale. The results revealed significant correlations between IQ, global self-esteem, and perceived scholastic competence. Talented children need to implement a social-emotional learning curriculum in their schools.

Qosimovna's study (2021) stated that the personality of pre-school children is an emerging socio-cultural condition that necessitates continual encouragement and development of potentials and tendencies that manifest powerfully at a specific age and leave a mark on all future lives. Pre-school children's creative potentials and inherent qualities develop solely as a result of targeted giftedness support through the creation of a creative and educational classroom environment, as well as personal interactions aimed at developing a person's spiritual and creative characteristics.

Forno et al.'s study (2021) aimed to explore the perceptions of pre-school teachers toward characteristics of giftedness. A qualitative approach was adopted. The data was collected by a semi-structured interview that focused on perceptions and understanding teachers' in identifying gifted children in pre-school. Eight teachers from Brazil and Portugal participated in this study. Teachers' responses were analyzed by content analysis. The study showed that the teachers acknowledge the concept of giftedness, and it indicated that teachers need training to be more experienced with the concept of giftedness and the identification of gifted children.

The study by Ökcü and Akgül (2021) examined the reading attitudes and comprehension skills of a group of gifted and non-gifted fifth-grade pupils. The sample consisted of 401 children: 168 gifted and 223 non-gifted. The data was collected by the (RCTRAS) Reading Comprehension Test and the Reading Attitude Scale. SPSS 24.0 was used to analyze the data. The study's findings revealed that

gifted children's reading comprehension abilities are significantly different from those of their non-gifted counterparts, indicating that gifted children have greater levels of reading comprehension.

Metin and Aral's study (2020) compared the drawing development of gifted and normal children during the Scheme Period (7–9 years). The sample consisted of 122 gifted children and 135 normal children. The data was collected through the children's drawings, and the (DEF) Drawing Evaluation Form was used as a data collection instrument. The researcher and a painting teacher evaluated the children's drawings using the Drawing Evaluation Form. The data analysis by descriptive statistics revealed that the drawing characteristics of gifted children and normal children are similar. Additionally, it was shown that the difference between males and girls was not significant, and that the drawings of non-gifted children differed by age.

According to Bildiren et al.'s study (2020), the teachers described giftedness as excellence and superiority in performance, creativity, intelligence, and talent. Identifying gifted children during their pre-school years is considered significant for their academic development when compared to non-gifted children. Moreover, cognitive skills, curiosity, communication skills, creativity, leadership, motivation, and high energy are all characteristics of gifted children. Additionally, pre-school teachers reported that gifted children show a high level of creativity and cognitive skills.

In Gabriela's study (2020), gifted children are extremely curious and prefer topics that are unfamiliar compared to their peers. They initiate verbal connections at a young age and have a language vocabulary that exceeds their peers. These children are considered "precocious." They choose their words carefully, yet they use them frequently. In addition to rapid learning ability, which enables children to process and recall information for later use.

The aim of London's study (2020) was to determine if there was a difference in the reading achievement growth of gifted students who were homogeneously grouped for reading instruction versus gifted students who were heterogeneously grouped for reading instruction. The study sample included 119 gifted students from the state of Georgia. According to the findings, there were differences in pre-and post-test scores for both the homogeneous and heterogeneous groups.

Kaya's study (2020) revealed that there are specific differentiating characteristics of gifted children in early childhood. However, it should be noted that not every gifted child possesses all of these characteristics. Particularly in the cognitive, social, and emotional skills of learning and education, such as curiosity, divergent thinking, persistence, and a strong focus on their interests and ability to form abstract connections.

Syafril et al.'s study (2020) sought to assess the critical thinking abilities of gifted young scientists living in rural areas of Indonesia. The study employed a multi-case, multi-site case approach, involving four managers, five teachers, and five high school students. In-depth and focus group interviews were used to collect data. The findings revealed four characteristics of gifted young scientists in the high school studied: they are extremely creative and active, they receive knowledge easily and quickly, they exhibit a high level of curiosity, and they prefer high-level and challenging learning processes. These findings imply that high school students meet the criteria for gifted young scientists. Thus, differentiated curricula, learning processes, materials, and approaches must be continuously and seriously constructed to maximize student development.

According to Eren et al.'s study (2018), gifted children identify themselves as more inattentive and livelier than children of normal intelligence, and parents of children of normal intelligence report lower academic achievement than parents of gifted children. The results reveal the importance of identifying gifted children at a young age so they can receive a proper education.

Bildiren's study (2018b) aimed to explore whether the responses to questions of normal children and gifted children differed or not, and stated that gifted children have differences in many aspects compared to their normal peers. These differences may manifest themselves in the daily lives of all of these children. The sample consisted of 46 normal children and 82 gifted children. A mixed research method was used. The result showed that the responses of normal children and gifted children differed.

Bildiren's study (2018d) aimed to examine the development characteristics of gifted children in pre-school compared to normal children, according to their families' observations. Interviews were conducted with the parents of 112 gifted children. The data was analysed by content analysis. The study showed that gifted

children have different characteristics in linguistic, cognitive, affective, and psychomotor skills than other children.

Yazıcı et al.'s study (2017) aimed to determine the perspectives of pre-school teachers about gifted children. The mixed method was used. A semi-structured interview was conducted as well as the scale for rating the behavioral characteristics of gifted and talented students, created by Şahin (2012). According to the results, the basic gifted children's characteristics were categorized as characteristics regarding personal traits, cognitive skills, physical skills, and problem-solving skills, but they were hesitant about social and communicative skills.

Uğraş, Şen and Asilturk's study (2016) aimed to identify the perspectives of pre-school pre-service teachers on gifted children. The study's sample size was 57 pre-service pre-school teachers. The qualitative approach was used, and a semi-structured interview was conducted to identify the attitudes of pre-school pre-service teachers towards gifted children. A content analysis was performed to describe the perspectives of pre-service pre-school teachers who participated in this study. The findings showed that pre-service teachers had only general information about gifted children. Pre-school teachers reported that gifted children differed significantly from normal children in their characteristics.

Altıntas and Ilgun's study (2016), aimed to present the term "Gifted Children" from the perspective of pre-school teachers and obtain more information about gifted individuals and their characteristics. It is necessary to create an appropriate educational environment for gifted children and to employ appropriate strategies to meet their educational needs. The sample consisted of 300 teachers. The researchers conducted the content analysis. The findings revealed that there were six themes, as follows: Creativity characteristics, academic characteristics, personality characteristics, physical characteristics, social characteristics, and congenital characteristics.

Mills's study (2003) was designed to explore the characteristics of gifted students. The sample consisted of 63 teachers and 1,247 gifted students. Teachers responded to two measures: a background questionnaire and the Myers Briggs Type Inventory (MBTI). The majority of teachers reported holding advanced degrees, but most were not certified to teach and reported completing no formal coursework in gifted education. The findings from this study suggest that certification and formal

training in gifted and talented education may not be sufficient factors to consider when selecting teachers of gifted students. Instead, it may be equally important to select teachers with a strong background in the academic discipline being taught and those who have a passion for the subject matter.

1. Previous Studies Related to the Gifted Children's Education

Darga and Ataman's study (2021) aimed to examine the impact of an enrichment program on the performance of gifted children and their peers. The study was carried out using an experimental design. There were 477 students in the study sample. The data collection tool was the enrichment program pre-test and post-test. The data was analyzed using SPSS. The results of the enrichment program differed from the existing school program in favor of enrichment. All of the children have benefited from the enrichment program, particularly gifted children.

The study by VanTassel-Baska's (2021) sought to examine the curriculum of gifted learners. The findings said that the curriculum and teaching methods that are designed for all learners have a lot of real promise for the gifted. There are many teachers who think that everything designed for gifted learners should be available for all learners. According to research, one of the best ways to work with gifted learners is to use inquiry.

Akgül's study (2021) sought to investigate teachers' perceptions of gifted children using metaphors and attitudes about gifted education. Two open-ended questions were used to collect qualitative data from 136 teachers. Teachers employed metaphors based on three categories: social value; gifted education; and giftedness characteristics. The findings revealed the teachers' training needs, practical implications, educational strategies for gifted learners, and the difficulties inherent in the identification procedure.

Kaya and Tortop's study (2020) sought to examine counselor attitudes and opinions towards gifted students in Turkey. A descriptive survey model is employed. Within the mixed method, both qualitative and quantitative data were collected. The Attitude Scale towards Gifted Education was conducted on 250 counselors. The qualitative data was acquired using a semi-structured interview form that included four questions about the education of the gifted and was conducted on 40 counselors. The findings showed that there are no significant differences in the dimensions of need for support and resistance to objections according to gender. However, there is a significant difference in the dimensions of

grouping abilities between males and females. There are no significant differences in the dimensions of need for support and resistance to objections according to seniority, but there is a significant difference in the abilities grouping dimension in favour of those with 11–19. In general, counsellors have a positive attitude towards gifted education, although there are problems in the education and diagnosis of gifted students.

Ninkov's study (2020) sought to offer recommendations for an adequate educational system that would allow learners to expand their knowledge and creativity while maintaining their normal living and educational environment. The comparative method was used, with a focus on the Eastern European Group (Bosnia and Herzegovina, Croatia, Hungary, and Serbia) and Western European and Other Group countries (Austria, Germany, Netherlands, UK, Turkey, and the USA). The findings revealed that inclusive education, as a possible alternative framework, may be the optimal educational system for gifted learners. There is no logical reason why inclusive education should not be applied to gifted learners as well. Such an inclusive education system would necessitate significant changes to current educational systems and programs, as well as the hiring of a diverse professional team of social workers and educators capable of meeting the needs of gifted students in any community. It is necessary to enhance existing educational policies in order to provide gifted students with an inclusive educational environment.

A literature review in Argyrios et al.'s study (2020) aimed to determine the gifted children's characteristics, the challenges they face and their causes, and the type of education these children should get. Differentiated teaching practices and flexible curricula are critiqued for their difficulty in examining their impact on gifted children throughout the educational process. In conclusion, gifted children with exceptional abilities deserve to be treated with respect, not as a minority or with an elitist mentality. Consequently, it is preferable to find out how many children need adapted education, whether they have a high level of perceptiveness or not. If children can acquire knowledge through a customized, interdisciplinary, material-rich education combined with an appropriate curriculum adaptation, the education will be effective since it will meet their needs.

Hu's study (2019) sought to examine the development of resilience in gifted children and to advocate for a resilience curriculum requirement in order to support their unique social and emotional development. Recommended policies and

practices were classified according to resilience theory into four categories: curriculum planning, program design, educators' capacity and continuity of gifted supports, and services and programs. The resilience framework is an opportunity to meet gifted interests and needs, and to change the curriculum. Therefore, the emotional and social dimensions of giftedness must be recognized and encouraged because success in one academic area necessitates success in others.

Kaya's study (2019) aimed to identify classroom teachers' opinions and attitudes toward the education of gifted students. A mixed method approach was used. The study sample consisted of 220 classroom teachers. The quantitative data was collected by the Attitude Scale towards Gifted Education. The qualitative data was collected through a semi-structured interview. The results indicated that there is no significant difference in teachers' opinions and attitudes according to seniority, having a gifted student, and graduated faculty in all sub-dimensions of the scale. But there are significant differences according to gender, age, and school type in some sub-dimensions. In the qualitative part of the study, the findings revealed that classroom teachers lack understanding of diagnosing and educating gifted children and need training in this area.

Sayı's study (2018) aimed to identify teachers' opinions on the limitations and strengths of the Teacher Training Program for Gifted Education. The study sample was conducted on 71 teachers in a semi-experimental design. Quantitative data was collected via a questionnaire consisting of 20 questions that were developed by the researcher. The results indicated that the teachers had a positive opinion of all parts of the training program, according to the pedagogical qualifications of the instructors.

Bildiren's study (2018a) sought to examine the impact of special education on the self-perception of gifted children. The sample consisted of 26 gifted children who were receiving special education at the Izmir Science and Art Centre, as well as 26 gifted children who had not yet begun special education. There are 30 females and 22 males. The Piers Harris Self-Concept Scale was used to investigate self-perception. The Mann Whitney U-Test was used to investigate the relationship between gifted children's self-perceptions during special education. The result showed that the Piers Harris Self-Concept Scale scores of gifted children who do not receive special education were statistically significantly higher than those of gifted children who do receive special education.

Kunt and Tortop's study (2017) aimed to examine the teachers' attitudes and views related to giftedness and gifted education. A mixed method approach was used. The study sample consisted of 111 teachers. Four teachers were interviewed in a semi-structured interview. The Teacher Attitude Scale towards Gifted Education (TASGE) was applied. The results showed that the teachers' attitudes towards gifted education were positive.

Tortop and Kunt (2013) conducted a survey study with 323 teachers. The results of the study showed that the teachers' attitudes towards gifted education were slightly positive. There was no statistically significant difference in mean scores based on gender, age, or branch.

Hensley's study (2013) aimed to conduct a literature review on enrichment and acceleration programs for gifted and talented students, to consider the advantages and disadvantages of homogeneous and heterogeneous learning environments, and to discuss best practices for providing programs for gifted students. It should be noted that enrichment programs are "horizontal" in nature and focus on academic modifications to speed, breadth of learning content, depth, processes, and products, whereas acceleration programs are "vertical" in nature and focus on different levels of grade skipping, early entry to school, or college.

Bate et al.'s study (2012) examined the gifted children's curriculum in New Zealand and concluded that certain aspects of the curriculum can be adapted for gifted learners. The findings also explained that the curriculum was designed by specialist teachers who work with gifted learners, which enables teachers to respond to individual learners' needs and understand the methods that support the effectiveness of the curriculum.

Watters and Diezmann's study (2003) sought to explore why gifted children need a special curriculum and to highlight many broad strategies for gifted children's support in Australia. The findings demonstrated that there are learners with exceptional talents and abilities in the majority of Australian schools; therefore, the development of policies and programs that are related to gifted learners, and their implementation, are necessary to assist these learners to reach their potential.

2. Previous Studies Related to the Teachers' Perceptions and Attitudes Towards Gifted Children

Aldosari's study (2021) sought to examine the opinions and practices of public and private pre-school teachers regarding gifted children between the ages of 3 and 6 in Saudi Arabia. A quantitative approach was used. The results showed that Saudi Arabian public and private pre-school teachers believe gifted children have greater cognitive abilities than their peers. Furthermore, the results demonstrated that there is a significant similarity between public and private pre-school teachers' views on educational strategies that are used to support gifted children.

Biber et al.'s study (2021) aimed to determine the relationship between teachers' nominations and Raven Standard Progressive Matrices (RSPM) results of individuals who are identified as gifted or ungifted and also to determine whether teachers' decisions are influenced by students' gender in Turkey. The relational survey model was employed in the study. It is one of the quantitative approaches. The sample consisted of 385 students. The results showed that although there was a relationship between teachers' nominations and RSPM results in diagnosing talented individuals, it was discovered that the teacher's nomination and RSPM results were insufficient, and teachers' decisions are influenced by students' gender.

Kadum, Kopas-Vukašinović and Miljković study (2021) aimed to examine the attitudes of future pre-school teachers in educational faculty about the giftedness of pre-school children and how they work with them. The sample size was 174 students. It was conducted in the faculty of educational sciences in Pula (Croatia). The study's findings confirm that future educators are qualitatively and sufficiently educated to work with gifted children, and they would like to have gifted children in their groups. The relationship between gifted children and normal children is harmonious, and gifted children should not be separated into special groups. They are a valuable resource for the community. They do not waste time and do not feel bored in a regular kindergarten.

Inci's study (2021) aimed to provide an analysis of the research conducted on gifted and talented children in early childhood in Turkey between 2002 and 2017, using a meta-synthesis methodology. This study included 37 studies. All papers used in this study were analyzed using content analysis for a variety of themes, including years, subjects, working groups, objectives, techniques, and

outcomes. The findings revealed several recommendations, including the following: multi-dimensional measurement methods for identifying gifted children in Turkey's early childhood period; the identification of gifted children in their early childhood period is critical; it is also necessary to develop differentiated education programs relevant to children's giftedness fields; and finally, it is necessary to develop national education programs.

Sanchez-Escobedo's study (2020) aimed to identify groups of Mexican elementary teachers on the basis of their knowledge about the identification of gifted students, educational strategies, and social value; and to examine the relationship between teaching experience, training on gifted education, and teachers' knowledge about gifted students. The sample consisted of 1002 teachers with 13.5 years of teaching experience, with 32% having received training in gifted education. A quantitative method was used in the questionnaire. The results revealed that there are two groups: one group included (61.2%) teachers with poor knowledge, while group two included (38.8%) teachers with basic knowledge and more teaching experience and training. There is also a positive relationship between teachers' experience and training and their knowledge of gifted students.

Scepanovic and Lazarevi's study (2019) examined teachers' perspectives on working with gifted children in the Republic of Serbia. A questionnaire for teachers on working with gifted children was developed using a quantitative approach, and it was divided into two parts: socio-demographic data and questions about the teachers' experiences, competencies, and work with gifted children in those areas. 208 teachers were included in the study. The findings revealed that the teachers have insufficient experience of engaging with pupils who are gifted. Because teachers require more opportunities to be trained in detecting, identifying, and working with gifted children and in understanding the gifted children's characteristics and their educational needs, more opportunities must be provided for them to be trained.

Demirok's (2018) study sought to determine teachers' perceptions and attitudes towards gifted children. The study used a stratified sampling method and included 490 teachers. The data was collected using the scale of perception toward gifted children. The results indicated that pre-school teachers have a positive attitude and perception toward gifted children.

According to the Bildiren study (2018a), the purpose of this study is to examine primary school teachers' opinions about the definition, identification, and education of gifted children. The study's sample group consisted of 13 primary school teachers. The phenomenology pattern was utilized for an in-depth and extensive examination of primary school teachers' tendencies, perceptions, and experiences about the definition, identification, and education of gifted children. The findings determined that primary school teachers define gifted children based on their special gifts, social and creative communication skills, and mental talent. Also, they delegate the task of identifying gifted children to the children's families, themselves, and, in most cases, professionals.

Sönmez's study (2017) was conducted with 20 teachers to learn about their attitudes toward talented students and their education. According to the results, the majority of teachers believe that gifted students are important for society and that they require support and special attention.

The study by Konrad and Gabrijelčič (2015) sought to examine the attitudes of pre-school teachers and their professional qualifications in identifying gifted children aged 2 to 6. The sample size was 180 teachers. The non–experimental causal approach was used. The findings revealed the following issues: pre-school teachers do not have enough information about gifted children; they have inadequate self-competence in identifying gifted children's characteristics and in the appropriate use of teaching strategies; and they emphasize the importance of further education and professional training in the field of gifted children's education.

Güneş (2015) sought to determine classroom teachers' self-efficacy and attitudes regarding gifted education. In this study, 222 Turkish school teachers were polled, and their attitudes were determined to be slightly positive.

Polyzopoulou et al.'s study (2014) aimed to identify teachers' attitudes regarding the educational characteristics of gifted children in Greek educational settings and examine the factors that affect teachers' perceptions. The study was conducted on 245 teachers who participated in the questionnaire about the gifted and their education. The findings indicated that teachers' attitudes regarding the educational characteristics of gifted children are affected by factors like teachers' experience.

CHAPTER III
Methodology

This chapter discussed the research methodology and design. In addition to the study's participants and their demographic characteristics, quantitative and qualitative research tools, the tools' validity and reliability, data collection procedures, and data analysis procedures.

Research Design

The purpose of this study was to explore pre-school teachers' perceptions and attitudes concerning gifted children and their education in Palestine. Therefore, the researcher used the mixed-method to examine the perceptions and attitudes of the pre-school teachers regarding the characteristics and education of gifted children.

The mixed-methods approach combines quantitative and qualitative methodologies to achieve a deeper understanding of the findings and their confirmation before generalizing them (Strijker et al., 2020). In addition, the mixed-method approach blends the strengths of qualitative and quantitative approaches. This approach involves quantitative and qualitative phases, with each phase being conducted independently. The quantitative and qualitative findings are then combined for a broader purpose and a more in-depth understanding of the study questions. (Othman et al., 2020).

According to Schoonenboom and Johnson (2017), mixed-methods design is distinguished by the combination of qualitative and quantitative methods, as well as the use of both qualitative and quantitative tools for the expansion of deep understanding. Therefore, the overall aim of mixed-methods research is to combine qualitative and quantitative research components and expand and reinforce a study's results and conclusions. Ultimately, mixed-method research is all about gaining more knowledge and proving its validity.

Schoonenboom and Johnson (2017) formulated a list of justifications for conducting mixed-methods research:

1. The combination of quantitative and qualitative research will present findings that can be mutually corroborated, and this would enhance the integrity of the findings and give them more credibility.

2. A mixed-methods approach that is associated with both qualitative and quantitative research has strengths and weaknesses. Therefore, integrating them allows the researcher to offset their weaknesses by drawing on the strengths of both.
3. If both quantitative and qualitative methods are employed together, the research will be more comprehensive.
4. The mixed-methods, which combine quantitative and qualitative research, are used to explain, with one being used to help explain the findings generated by the other.
5. Qualitative research is employed to develop the instruments of study, like questionnaires and scale items, for example, in order to generate better wording or more comprehensive responses.
6. Qualitative research provides contextual understanding coupled with generalizable and externally valid findings, and qualitative data is used to illustrate the findings of quantitative research.

The main aim of mixed-methods study design is to combine the strengths of both qualitative and quantitative approaches to answer research questions.

There are four major types of mixed-methods designs: triangulation design, embedded design, exploratory design, and explanatory design (Yu & Khazanchi, 2019)

In this study, a sequential explanatory mixed-methods design was adopted since it was the greatest fit for answering the research questions and drawing broader conclusions from the findings.

According to Koç and Baştaş (2019), a sequential explanatory design is a method in which quantitative research is conducted first, in which quantitative data is collected and analyzed, followed by qualitative research to explain the quantitative findings, where the researcher draws conclusions based on the advantages of combining quantitative and qualitative research.

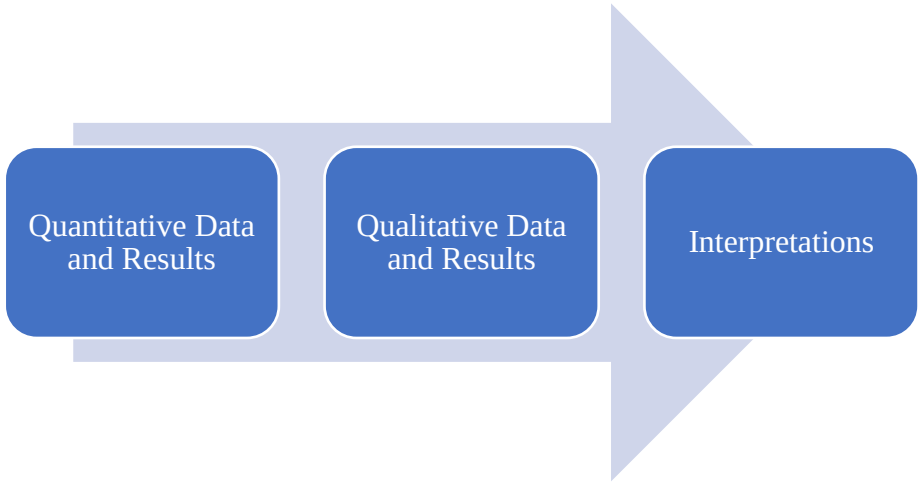
Overall, it is a sequential approach, beginning with a quantitative phase and followed by a qualitative phase. Both quantitative and qualitative data are collected, analysed separately, and then integrated. The findings of the qualitative phase are used to explain and provide a more comprehensive contextualization of the findings of the quantitative phase (Othman et al., 2020).

The sequential explanatory design is advantageous when the researcher and the research topic are more quantitatively oriented; when the researcher has already determined a variable to examine and study; when the researcher has access to participants to collect qualitative data; when the researcher has the time to collect data in two phases; and when the researcher is the sole examiner, collecting and analyzing data one at a time (Dawadi et al., 2021).

According to Creswell and Plano (2018), integration in this design occurs in two ways: by connecting quantitative findings to qualitative data gathering, and by drawing integrated conclusions after integrating two sets of results following the completion of the qualitative phase. (Please, see Figure 3).

Figure 3.

The sequential explanatory mixed-methods design



Participants

Many countries' ministries of education have sought to develop their educational policies, that would encourage the development of the educational system, such as the policy of partial feminization of education, which has a favorable impact on the educational process as a whole (Yousef, 2021).

This is demonstrated by the Ministry of Education's efforts towards the partial feminization of the teaching staff in elementary schools. In Palestine, educational policies have influenced the educational process, and there are two reasons for the phenomena of partial feminization's expansion: First, the direct reason relates to the Ministry of Education's objectives and what it seeks to achieve. Second, the indirect reason is dictated by the nature of life and its development, such as the compatibility of a female's nature and her employment as a kindergarten

teacher; also, the children during this period need a teacher who plays the role of a mother figure. As a result, females are predisposed to work with children and provide them with love and attention (Al-Munayyer, 2018).

As a brief, the role of females in education transcends the traditional teacher's role of imparting educational experiences from the curriculum to the student. Instead, it is connected to her responsibilities as a mother and educator. Additionally, the numbers of students enrolled in institutes of higher education in the humanities in Palestine reveal a significant disparity between males and females, since females are more interested in the humanities than males (Yousef, 2021).

Ultimately, the study's population included all female pre-school teachers employed by education directorates in all villages and cities of Palestine. As a result, the quantitative approach consisted of two samples:

The first sample, which consisted of (450) female pre-school teachers from public schools, was randomly selected, and all of the participants had not received any training in identifying gifted children during their studies, so the teachers' perceptions about the characteristics of gifted children are based on their personal knowledge and interests in gifted children. The main aim of this sample was to examine the teachers' perceptions about the characteristics of gifted children.

The second sample, which consisted of (330) female pre-school teachers from public schools, was randomly selected, and all of the participants had not received any training in identifying gifted children during their studies, so the teachers' attitudes about gifted children's education are based on their personal knowledge and interests in gifted children. The main aim of this sample was to examine the teachers' attitudes towards gifted children's education. A total of 25 questionnaires were omitted from the samples due to some stereotypical responses. (Please see Table 1).

Table 1.

Demographic Information Regarding Quantitative Samples

Variables	Domain	First Sample (450)		Second Sample (330)	
		f	%	*f*	%
Academic Qualification	Bachelor	373	83%	275	83%
	Master	77	17%	55	17%
Years of Experience	Less than 3	160	36%	102	31%
	From 3 to 6	134	30%	106	32%
	More than 6	156	34%	122	37%
Need Curriculum	Yes	379	84%	276	84%
	No	71	16%	54	16%

Additionally, the qualitative approach included a sample of (20) female pre-school teachers from public schools. The snowball strategy was used in the selection of the qualitative approach's sample.

The snowball strategy in qualitative sample selection is when the researcher identifies one or two participants to participate in the study, and then relies on those initial participants to help identify additional participants (Naderifar et al., 2017).

The main aim of this sample was to examine the teachers' perceptions and attitudes towards characteristics of gifted children and their education. (Please see Table 2).

Table 2.

Demographic Information Regarding Qualitative Sample

Variables	Domain	Ƒ	%
Academic Qualification	Bachelor	13	65%
	Master	7	35%
Years of Experience	From 3 to 6	6	30%
	More than 6	14	70%

Data Collection Tools

Quantitative Tools

The questionnaire was created in a bilingual format (Arabic and English). To achieve the study's aims, the researcher used two scales:

The first one was the "Scale for Rating the Behavioral Characteristics of Gifted and Talented Students," which was developed by Demirok and Ozcan (2016) and consisted of two parts: the demographic information and the teachers' perceptions towards the characteristics of gifted children. The demographic information is related to the participants' academic qualifications and their years of experience. The scale consisted of 33 items and five dimensions. The dimensions were: willingness to learn, which included 9 items; expression characteristics, which had 8 items; personality characteristics, which included 6 items; learning characteristics, which included 6 items; and mental characteristics, which had 4 items. (Please see Table 3).

Table 3.

The Dimensions That Were Assessed in the First Scale

Dimensions	Items	Domain
Willingness to Learn	9	Q1-Q9
Expression Characteristics	8	Q10-Q17
Personality Characteristics	6	Q18-Q23
Learning Characteristics	6	Q24-Q29
Mental Characteristics	4	Q30-Q33

The study used a 5-point Likert scale graded as: (1) strongly disagree; (2) disagree; (3) neither agree nor disagree; (4) agree; and (5) strongly agree.

Reliability is the overall consistency of a scale, and the degree of consistency is quantified by the reliability coefficient (Cho, 2016). According to Taber (2018), Cronbach's alpha is a statistic commonly cited by authors to indicate the suitability of tests and scales constructed or adopted for the purpose of research. If $0.7 \leq \alpha < 0.9$, then the tool is a good and considered reliable (Please see Table 4).

Table 4.

Cronbach's Alpha Coefficient (Taber, 2018)

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.7 \leq \alpha < 0.9$	Good
$0.6 \leq \alpha < 0.7$	Acceptable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Cronbach's (α) Coefficients were calculated in the current study for the five dimensions as follows: willingness to learn (0.836), expression characteristics (0.765), personality characteristics (0.702), learning characteristics (0.718), and mental characteristics (0.743), and the overall internal reliability coefficient of the scale (Cronbach's α Coefficient) was calculated as (0.868). From this standpoint, the results showed that the scale was a reliable measurement tool. (Please see Table 5).

Table 5.

Cronbach's (α) Coefficients for the Dimensions in the First Scale

Dimensions	Cronbach's (α) Coefficients
Willingness to Learn	0.836
Expression Characteristics	0.765
Personality Characteristics	0.702
Learning Characteristics	0.718
Mental Characteristics	0.743
Total	0.868

The first scale's validity was verified by calculating the correlation coefficient (r) (Pearson) between the score of each item and the overall score of the domain to which it belonged.

The correlation coefficient is a statistical measure of the strength of the relation between two variables. The values range from -1.00 to 1.00. If the number is greater than 1.0 or less than -1.0, it indicates that the correlation measurement is not correct. (Please see Table 6).

Table 6.

Pearson's Correlation Coefficient (Schober et al., 2018)

Correlation Coefficient (r)	Interpretation
0.00 - 0.10	Negligible Correlation
0.10 - 0.39	Weak Correlation
0.40 - 0.69	Moderate Correlation
0.70 - 0.89	Strong Correlation
0.90 - 1.00	Very Strong Correlation

Table (7) shows the positive correlation coefficients (r) and a statistical function that demonstrate the validity of the internal consistency of scale items. Therefore, the correlation values for the scale items ranged from 0.820 to 0.506, which were within the acceptable standard.

Table 7.

The Pearson Correlation Coefficient for Each Item in the First Scale

Willingness to Learn		Expression		Personality		Learning		Mental	
Q	R	Q	R	Q	R	Q	R	Q	r
Q1	0.705**	Q10	0.634**	Q18	0.570**	Q24	0.565**	Q30	0.713**
Q2	0.753**	Q11	0.567**	Q19	0.676**	Q25	0.548**	Q31	0.785**
Q3	0.606**	Q12	0.592**	Q20	0.688**	Q26	0.735**	Q32	0.820**
Q4	0.655**	Q13	0.693**	Q21	0.506**	Q27	0.753**	Q33	0.703**
Q5	0.582**	Q14	0.616**	Q22	0.704**	Q28	0.678**		
Q6	0.660**	Q15	0.706**	Q23	0.648**	Q29	0.615**		
Q7	0.772**	Q16	0.753**						
Q8	0.720**	Q17	0.696**						
Q9	0.566**								

*** Correlation is significant at the 0.05 level (2-tailed).*

The second one was the "Scale for Attitudes towards Gifted Education," which was created by Gagné and Nadeau (1985). The original scale consisted of 34 items and six dimensions. The scale was developed by Tortop (2012) and consisted of two parts: the demographic information and the teachers' attitudes towards gifted education. The demographic information is related to the participants' academic qualifications and their years of experience. The final draft of the scale consisted of 14 items, seven of which were positive and seven were negative, and three

dimensions. The dimensions were: needs and support, which included 7 items; resistance to objections, which had 3 items; and ability grouping, which included 4 items. (Please see Table 8).

Table 8.

The Dimensions That Were Assessed in the Second Scale

Dimensions	Items	Domain
Needs and Support	7	Q1-Q7
Resistance to Objections	3	Q8-Q10
Ability Grouping	4	Q11-Q14

As in the first scale, a 5-point Likert scale graded as: (1) strongly disagree; (2) disagree; (3) neither agree nor disagree; (4) agree; (5) strongly agree.

Cronbach's (α) Coefficients were calculated in the current study for the three dimensions as follows: needs and support (0.710), resistance to objections (0.660), and ability grouping (0.796), and the overall internal reliability coefficient of the scale (Cronbach's α Coefficient) was calculated as (0.828). From this standpoint, the results showed that the scale was a reliable measurement tool. (Please see Table 9).

Table 9.

Cronbach's (α) Coefficients for the Dimensions in the Second Scale

Dimensions	Cronbach's (α) Coefficients
Needs and Support	0.710
Resistance to Objections	0.660
Ability Grouping	0.796
Total	0.828

The second scale's validity was verified by calculating the correlation coefficient (r) (Pearson) between the score of each item and the overall score of the domain to which it belonged.

Table (10) shows the positive correlation coefficients (r) and a statistical function that demonstrate the validity of the internal consistency of scale items. Therefore, the correlation values for the scale items ranged from 0.876 to 0.587, which were within the accepted standard.

Table 10.

The Correlation Coefficient for Each Item in the Second Scale

Needs and Support		Resistance to Objections		Ability Grouping	
Q	R	Q	r	Q	r
Q1	0.789**	Q8	0.619**	Q11	0.770**
Q2	0.756**	Q9	0.587**	Q12	0.876**
Q3	0.649**	Q10	0.792**	Q13	0.698**
Q4	0.791**			Q14	0.596**
Q5	0.772**				
Q6	0.601**				
Q7	0.622**				

** *Correlation is significant at the 0.05 level (2-tailed).*

Qualitative Tools

The in-depth semi-structured interview was conducted in this study due to its advantages, such as allowing the researcher to formulate the problem statement and analyse it from the perspective of the individual, as well as allowing for a more detailed and in-depth explanation, in addition to these benefits, interview forms give both the interviewee and the researcher flexibility, it facilitates the collection of more systematic data from individuals. As a result, the researcher's bias and subjectivity will be reduced (Yldrm & Imşek, 2015).

The researcher designed the semi-structured interview questions and developed them based on quantitative results and previous studies such as Tezcan's study (2012) and Yazıcı et al.'s study (2017).

Finally, the interview consisted of 6 questions that related to the study and discussed the characteristics and education of gifted children, and they were reviewed by early childhood specialists. The interview questions were as follows:

1. What is the definition of a gifted child?
2. Can you mention some characteristic related to gifted children?
3. What are the most obvious characteristics that distinguish gifted children?
4. What do you think? Should gifted children be educated in special classes or in their normal classes? (Explain more).

5. What do you think? Is our curriculum adequate to meet the needs of gifted children? (Explain more).
6. What strategies and programs do you prefer to use in teaching gifted children?

Data Collection Procedures

Permission was granted by the Scientific Research Ethics Committee at Near East University in Northern Cyprus, with the reference number NEU/ES/2021/712, as well as the Director-General of the Centre for Educational Research and Development (CERD) at the Ministry of Education in Palestine. After getting permission, the researcher started collecting quantitative and qualitative data.

The scales (Questionnaires) were designed electronically because of the coronavirus, which hampered freedom of movement, ease of movement, and access to teachers. As a result, the researcher was forced to use technology, specifically Google Forms, to facilitate the distribution of questionnaires among female pre-school teachers. The questionnaires were delivered to pre-school teachers in the Palestinian Ministry of Education, through educational supervisors from each governorate, by WhatsApp groups.

The Google Form started receiving the first scale responses from March 28th, 2021 to May 21st, 2021 and also the second scale responses from August 29th, 2021 to October 3rd, 2021. Therefore, the first sample consisted of 450 participants, and the second sample consisted of 330 participants.

Following that, qualitative data was collected through semi-structured interviews with 20 female pre-school teachers. The interview was conducted online through the Facebook app. Before being interviewed, participants were invited, and they were also informed of the purpose of this study and that their personal information would be kept confidential.

Afterwards, the participants gave their approval. All of the interviews were audio recorded to ensure that all of the information was obtained; the interviews went smoothly, and the interviews lasted between 15 and 20 minutes.

Data Analysis Procedures

Quantitative Data Analysis

The quantitative data was analyzed using SPSS version 24; reliability and validity analyses were conducted. Through the use of Cronbach's α internal

consistency coefficients, reliability analysis allows for the study of the properties of the items that compose the scale as well as the provision of information about the relation between individual items in the scales. If $0.7 \leq \alpha < 0.9$, then the tool is a good and considered reliable. (Please see Table 4).

The overall internal reliability coefficient of the first scale (Cronbach's α coefficient) was 0.868, and the overall internal reliability coefficient of the second scale (Cronbach's α coefficient) was 0.828.

Validity analysis allows studying the correlation coefficients (r) (Pearson) between the score of each item and the overall score of the domain to which it belonged, to verify the relevance of the questions. If $0.70 \leq r < 0.89$, then there was a strong correlation, and it was within the accepted standard, and the tool was considered reliable. (Please see Table 6).

The correlation values for the first scale items ranged from 0.820 to 0.506, while the correlation values for the second scale items ranged from 0.876 to 0.587.

The frequency and percentages of responses that reflected teachers' perceptions and attitudes were calculated using descriptive statistics. The quantitative data was also analyzed using means, standard deviations, an Independent Sample t-Test, and one-way ANOVA.

Qualitative Data Analysis

A content analysis was conducted to analyze the qualitative data that was obtained from the interviews. Content analysis is a versatile research method that has been employed in Library and Information Science (LIS) studies for a variety of research purposes.

Content analysis is used in qualitative, quantitative, and sometimes mixed-method contexts, and it incorporates a wide range of research tools to generate and contextualize findings. It is a systematic and rigorous approach to analyzing documents received or generated (White & Marsh, 2006). A content analysis is a reference source of information and provides an explanation and description of the data (Jawabreh & Gündüz, 2021).

In addition, it is a systematic research method for analyzing and making inferences from text and other forms of qualitative information, such as interviews, focus groups, documents, and open-ended survey questions.

Content analysis is performed in five steps (Erlingsson & Brysiewicz, 2017):

1. Selecting content that will be analyzed based on research questions.
2. Creating and refining categories.
3. Defining items in categories.
4. Summarizing and analyzing results
5. Documenting steps.

To analyze the data, the teachers' responses were reviewed to identify the most significant terms, which were highlighted in different colors as potential codes; then, the emergent codes were sorted into main themes and sub-themes.

The peer-review method was employed to ensure the credibility of the study. Two rounds of peer review were used: the first round resulted in the identification of main themes and sub-themes (categories); and the second round of peer review resulted in the merging of closely related main themes and sub-themes (categories).

The main themes and sub-themes (categories) were agreed upon in this round. The themes were organized, and the findings were identified and discussed. Furthermore, the teachers' responses (quotations) that related to the characteristics and education of gifted children were taken verbatim to enhance credibility.

Ethical Consideration

Permission was granted by the Scientific Research Ethics Committee at Near East University in Northern Cyprus, with the reference number NEU/ES/2021/712, as well as the Director-General of the Centre for Educational Research and Development (CERD) at the Ministry of Education in Palestine. After getting permission, the researcher started collecting quantitative and qualitative data.

Before being interviewed, participants were invited, and they were also informed of the purpose of this study and that their personal information would be kept confidential. Afterwards, the participants gave their approval. Additionally, it is worth mentioning that the study is for research purposes and there is no any kind of conflict of interest.

CHAPTER IV

Findings

Gifted children have different characteristics from normally developing children. These characteristics include curiosity, rapid learning ability, excellent memory, academic excellence, creative energy, leadership, and fluency of expression. Therefore, gifted children need educational programs, strategies, opportunities, and services that may not always be available in traditional education programs.

As a consequence, the current study aims to explore the perceptions and attitudes of female pre-school teachers towards the characteristics and education of gifted children in Palestine.

This chapter presents the findings based on the collected data from questionnaires and semi-structured interviews, which were organized based on the main research questions.

Results of Quantitative Data

Following the use of descriptive statistics to analyze the quantitative data, the research questions will be addressed as follows:

Research question #1: What are the major characteristics of gifted children, according to the perceptions of pre-school teachers?

According to the findings of the analysis, the means of the questionnaire items range between 3.86 and 4.90, and the standard deviations range between 0.294 and 0.760. (Please see Table 11).

Table 11.

The Mean and Standard Deviations for the First Scale's Items

Item	Mean	SD	Item	Mean	SD	Item	Mean	SD
Q1	4.89	0.306	Q12	4.28	0.689	Q23	4.38	0.487
Q2	4.90	0.294	Q13	4.75	0.495	Q24	4.28	0.678
Q3	4.80	0.397	Q14	4.00	0.760	Q25	3.86	0.605
Q4	4.79	0.403	Q15	4.65	0.564	Q26	4.50	0.578
Q5	4.77	0.416	Q16	4.34	0.643	Q27	4.46	0.589
Q6	4.79	0.403	Q17	4.65	0.552	Q28	4.51	0.574
Q7	4.88	0.325	Q18	4.46	0.498	Q29	4.27	0.663
Q8	4.88	0.322	Q19	4.62	0.485	Q30	4.27	0.714
Q9	4.88	0.320	Q20	4.42	0.495	Q31	4.52	0.589
Q10	4.52	0.619	Q21	4.14	0.351	Q32	4.40	0.612
Q11	4.65	0.554	Q22	4.64	0.479	Q33	4.63	0.575

The findings of the analysis reveal that the mean of teachers' perceptions is at a high level in the five dimensions of the characteristics of gifted children. The five dimensions are: willingness to learn (M = 4.84, SD = 0.235), expression characteristics (M = 4.48, SD = 0.378), personality characteristics (M = 4.44, SD = 0.297), learning characteristics (M = 4.31, SD = 0.397), and mental characteristics (M = 4.45, SD = 0.469). Consequently, each dimension of the scale has a mean greater than 3.5. While the mean of teachers' perceptions in all dimensions of the scale is (M = 4.54 and SD = 0.232). As a result, the teachers have positive and high perceptions regarding the characteristics of gifted children. (Please see Table 12).

Table 12.

The M and SD of the Five Dimensions in the First Scale

Dimensions	Mean	Std. Deviation	Level
Willingness to Learn	4.84	0.235	High
Expression	4.48	0.378	High
Personality	4.44	0.297	High
Learning	4.31	0.397	High
Mental	4.45	0.469	High
Total	4.54	0.232	High

Research question #2: Is there a significant difference in the teachers' perceptions towards the characteristics of gifted children regarding their academic qualifications?

The Independent Samples t-Test was used by the researcher to answer this question in order to examine teachers' perceptions of the characteristics of gifted children based on teachers' academic qualifications.

As shown by Table 13, the mean of perceptions of teachers who have a bachelor's degree regarding the characteristics of gifted children related to willingness to learn is (M = 4.84; SD = 0.238), which is close to the mean of perceptions of teachers who have a master's degree (M = 4.85, SD = 0.216).

Additionally, the mean of perceptions of teachers who have a bachelor's degree regarding the characteristics of gifted children concerning the expression characteristics, is (M = 4.48; SD = 0.394), which is lower than the mean of perceptions of teachers who have a master's degree (M = 4.50; SD = 0.292).

The mean of perceptions of teachers who have a bachelor's degree regarding personality characteristics is (M = 4.37; SD = 0.297), which is lower than the mean of perceptions of teachers who have a master's degree (M = 4.46; SD = 0.290).

Additionally, the mean of perceptions of teachers who have a bachelor's degree regarding learning characteristics is (M = 4.23; SD = 0.388), which was also lower than the mean of perceptions of teachers who have a master's degree (M = 4.33; SD = 0.430).

Lastly, the mean of perceptions of teachers who have a bachelor's degree regarding mental characteristics is (M = 4.41; SD = 0.476), which is lower than the mean of perceptions of teachers who have a master's degree (M = 4.46, SD = 0.437). (Please See Table 13).

Table 13.

Results of the Independent t-Test of Perceptions of Pre-school Teachers According to Their Academic Qualifications.

Dimensions	Academic Qualification	N	Mean	SD	t-value	DF	P	Explanation
Willingness to Learn	Bachelor	373	4.84	0.238	-0.193	448	0.847	p>0.05 Insignificant
	Master	77	4.85	0.216				
Expression Characteristics	Bachelor	373	4.48	0.394	-0.589	448	0.557	p>0.05 Insignificant
	Master	77	4.50	0.292				
Personality Characteristics	Bachelor	373	4.37	0.297	2.293	448	0.022*	p<0.05 Significant
	Master	77	4.46	0.290				
Learning Characteristics	Bachelor	373	4.23	0.388	2.100	448	0.036*	p<0.05 Significant
	Master	77	4.33	0.430				
Mental Characteristics	Bachelor	373	4.41	0.476	0.865	448	0.387	p>0.05 Insignificant
	Master	77	4.46	0.437				

** P is significant at the 0.05 level (2-tailed).*

These findings indicate that there are significant differences in the perceptions of teachers based on their academic qualifications in the two following dimensions: learning characteristics and personality characteristics, in favor of master's degree holders. Master's degree-holders have more knowledge, experience, and years of study. This may explain why they perceive the characteristics of gifted children more than who have a bachelor's degree. Simultaneously, there are no significant differences in the dimensions of mental characteristics, expression characteristics, and willingness to learn.

Research question #3: Is there a significant difference in the teachers' perceptions towards the characteristics of gifted children based on the years of experience of the teachers?

The researcher conducted a one-way ANOVA to examine if there are any significant differences in the teachers' perceptions of gifted children based on their years of experience. Table 14 shows that the number of years of teachers' experience ranged from less than 3 years, to 3 to 6 years, and more than 6 years.

The findings indicate that there are no significant differences between the teachers' perceptions towards the characteristics of gifted children based on the

number of years of teachers' experience in the five dimensions for the scale. Concerning the willingness to learn, F (2; 447) = 0.069 (p > 0.05), expression characteristics, F (2; 447) = 0.313 (p > 0.05), personality characteristics, F (2; 447) = 0.665 (p > 0.05), learning characteristics, F (2; 447) = 1.051 (p > 0.05), and finally, mental characteristics, F (2; 447) = 0.199 (p > 0.05).

Table 14.

One-way ANOVA of the Perceptions of Pre-school Teachers Based on Their Years of Experience.

Dimensions	Domains	N	M	SD	F	P	Explanation
Willingness to Learn	Less than 3 years	160	4.85	0.232	0.069	0.933	p>0.05 Insignificant
	From 3 to 6 years	134	4.84	0.225			
	More than 6 years	156	4.84	0.246			
Expression Characteristics	Less than 3 years	160	4.50	0.386	0.313	0.731	p>0.05 Insignificant
	From 3 to 6 years	134	4.48	0.369			
	More than 6 years	156	4.46	0.379			
Personality Characteristics	Less than 3 years	160	4.46	0.306	0.665	0.515	p>0.05 Insignificant
	From 3 to 6 years	134	4.45	0.302			
	More than 6 years	156	4.42	0.284			
Learning Characteristics	Less than 3 years	160	4.30	0.414	1.051	0.351	p>0.05 Insignificant
	From 3 to 6 years	134	4.35	0.418			
	More than 6 years	156	4.29	0.357			
Mental Characteristics	Less than 3 years	160	4.43	0.502	0.199	0.820	p>0.05 Insignificant
	From 3 to 6 years	134	4.47	0.425			
	More than 6 years	156	4.46	0.472			

In light of the foregoing, the findings reveal that there are no significant differences in teachers' perceptions towards the characteristics of gifted children based on the teachers' years of experience. Therefore, the number of experience years doesn't seem to have a significant impact on how teachers perceive gifted children.

Research question #4: Is there a significant difference in the teachers' perceptions towards gifted children's characteristics based on whether gifted children require a specific curriculum or not?

The Independent Samples t-Test was used by the researcher to identify if there are significant differences in teachers' perceptions of the characteristics of gifted children based on whether gifted children need a specific curriculum or not.

Table 15 shows that the mean of perceptions of teachers who said that gifted children need a specific curriculum (yes) which is related to the dimension of willingness to learn, is (M = 4.87; SD = 0.241), which is higher than the mean of perceptions of teachers who said that gifted children do not need a specific curriculum (no) (M = 4.84, SD = 0.193).

In addition, the mean of perceptions of teachers who said (yes), which is related to the dimension of expression characteristics, is (M = 4.50; SD = 0.374), which is higher than the mean of perceptions of teachers who said (no) (M = 4.36; SD = 0.380).

Moreover, the mean of perceptions of teachers who said (yes), which is related to the dimension of personality characteristics, is (M = 4.46; SD = 0.297), which is higher than the mean of perceptions of teachers who said (no) (M = 4.37; SD = 0.284).

The mean of perceptions of teachers who said (yes), which is related to the dimension of learning characteristics, is (M = 4.33; SD = 0.396), which is higher than the mean of perceptions of teachers who said (no) (M = 4.23; SD = 0.394).

Lastly, the mean of perceptions of teachers who said (yes), which is related to the dimension of mental characteristics, is (M = 4.48; SD = 0.464), which is higher than the mean of perceptions of teachers who said (no) (M = 4.33, SD = 0.483).

Table 15.

Results of the Independent t-Test of Perceptions of Pre-school Teachers According to Need a Curriculum.

Dimension	Need Curriculum	N	Mean	SD	t-value	DF	P	Explanation
Willingness to Learn	Yes	379	4.87	0.241	1.349	488	0.180	p>0.05 Insignificant
	No	71	4.84	0.193				
Expression Characteristics	Yes	379	4.50	0.374	3.017	448	0.003*	p<0.05 Significant
	No	71	4.36	0.380				
Personality Characteristics	Yes	379	4.46	0.297	2.363	448	0.019*	p<0.05 Significant
	No	71	4.37	0.284				
Learning Characteristics	Yes	379	4.33	0.396	1.871	448	0.062	p>0.05 Insignificant
	No	71	4.23	0.394				
Mental Characteristics	Yes	379	4.48	0.464	2.422	448	0.016*	p<0.05 Significant
	No	71	4.33	0.483				

** P is significant at the 0.05 level (2-tailed).*

According to the findings, there are significant differences in teachers' perceptions of whether gifted children need a specific curriculum or not in some dimensions, such as personality characteristics, mental characteristics, and expression characteristics, in favor of those who believe gifted children need a specific curriculum. It seems that mental characteristics have an effect on personal characteristics as well as characteristics of expression. Therefore, they are all considered integrative characteristics, each affecting the other. At the same time, there are no significant differences in the other dimensions, such as learning characteristics and willingness to learn.

Research question #5: What are the attitudes of pre-school teachers towards gifted children's education?

According to the findings of the analysis, the means of the questionnaire items range between 2.21 and 4.54, and the standard deviations range between 0.296 and 0.561. (Please see Table 16).

Table 16.

The Mean and Standard Deviations for the Second Scale's Items

Item	Mean	SD	Item	Mean	SD
Q1	4.21	0.413	Q8	3.54	0.561
Q2	4.25	0.434	Q9	2.76	0.502
Q3	3.42	0.494	Q10	2.21	0.413
Q4	4.38	0.523	Q11	2.49	0.500
Q5	3.09	0.296	Q12	4.54	0.498
Q6	4.37	0.485	Q13	4.50	0.500
Q7	4.40	0.490	Q14	4.30	0.462

According to the findings of the analysis, the means of teachers' attitudes toward gifted children's education in the three dimensions are as follows: needs and support (M = 4.02; SD = 0.182), resistance to objections (M = 2.84; SD = 0.272), and ability grouping (M = 3.96; SD = 0.268).

Consequently, some dimensions have a mean of more than 3.5, while some of them are less than 3.5. While the mean of teachers' attitudes in all dimensions of the scale is (M = 3.85; SD = 0.141). Therefore, pre-school teachers have a high level of awareness and positive attitudes toward gifted children's education; that is, they are knowledgeable about gifted children's education. (Please see Table 17).

Table 17.

The M and SD of the Three Dimensions in the Second Scale

Dimensions	Mean	SD	Level
Needs and Support	4.02	0.182	High
Resistance to Objections	2.84	0.272	Low
Ability Grouping	3.99	0.268	High
Total	3.85	0.141	High

Research question #6: Is there a significant difference in the teachers' attitudes towards gifted children's education regarding their academic qualifications?

The Independent Samples t-Test was used by the researcher to answer this question in order to examine the teachers' attitudes towards gifted children's education based on the teachers' academic qualifications.

Table 18 shows the mean of attitudes of teachers who have a bachelor's degree concerning the gifted children's education which is related to needs and support is (M = 4.01; SD = 0.184), which is close to the mean of attitudes of teachers who have a master's degree (M = 4.02; SD = 0.182).

In addition, the mean of attitudes of teachers who have a bachelor's degree concerning the gifted children's education, which is related to resistance to objections, is (M = 2.83; SD = 0.282), which is lower than the mean of attitudes of teachers who have a master's degree (M = 2.90; SD = 0.207). Finally, the mean of attitudes of teachers who have a bachelor's degree regarding ability grouping is (M = 3.88; SD = 0.239), which is lower than the mean of attitudes of teachers who have a master's degree (M = 3.97; SD = 0.271).

Table 18.

Results of the t-Test of Attitudes of Pre-school Teachers According to Their Academic Qualifications.

Dimensions	Academic Qualification	N	M	SD	t-value	DF	P	Explanation
Needs and Support	Bachelor	275	4.01	0.184	0.365	328	0.015*	p<0.05 Significant
	Master	55	4.02	0.182				
Resistance to Objections	Bachelor	275	2.83	0.282	-2.369	328	0.020*	p<0.05 Significant
	Master	55	2.90	0.207				
Ability Grouping	Bachelor	275	3.88	0.239	2.311	328	0.021*	p<0.05 Significant
	Master	55	3.97	0.271				

** P is significant at the 0.05 level (2-tailed).*

These findings indicate that there are significant differences in teachers' attitudes towards gifted children's education based on the teachers' academic qualifications in the three dimensions of needs and support, resistance to objections, and ability grouping in favor of master's degree holders. In general, gifted children's education requires teachers who have a master's degree to provide children with advanced development, creative and academic challenges, and a stimulating learning environment.

Research question #7: Is there a significant difference in the teachers' attitudes towards gifted children's education based on the years of experience of the teachers?

The researcher used a one-way ANOVA to determine if there are significant differences in the teachers' attitudes towards gifted children's education based on their years of experience.

As shown by Table 19, the number of years of teachers' experience range between less than 3 years, from 3 to 6 years, and more than 6 years.

There are significant differences between the teachers' attitudes towards gifted children's education and the number of years of teachers' experience regarding needs and support, $F (2; 327) = 3.749$, ($p < 0.05$), resistance to objections, $F (2; 327) = 2.168$, ($p < 0.05$), and ability grouping, $F (2; 327) = 0.056$, ($p < 0.05$).

Table 19.

One-way ANOVA of the Attitudes of Pre-school Teachers Based on Their Years of Experience.

Dimensions	Domains	N	M	SD	F	P	Explanation
Needs and Support	Less than 3 years	102	3.82	0.201	3.749	0.025*	p<0.05 Significant
	From 3 to 6 years	106	4.11	0.171			
	More than 6 years	122	4.16	0.170			
Resistance to Objections	Less than 3 years	102	2.80	0.308	2.168	0.016*	p<0.05 Significant
	From 3 to 6 years	106	2.82	0.248			
	More than 6 years	122	2.89	0.257			
Ability Grouping	Less than 3 years	102	3.90	0.256	0.056	0. 045*	p<0.05 Significant
	From 3 to 6 years	106	3.91	0.281			
	More than 6 years	122	3.96	0.267			

** P is significant at the 0.05 level (2-tailed).*

In light of the above findings, these results reveal that there are significant differences in teachers' attitudes according to their years of experience in gifted children's education in the three dimensions of needs and support, resistance to objections, and ability grouping, in favor of those with more than 6 years of experience. Overall, the findings confirmed that the number of years of a teacher's experience significantly affects the teachers' attitudes towards gifted children. That is, the more years of experience the teachers have, the more positive their attitudes are towards the education of gifted children.

Research question #8: Is there a significant difference in the teachers' attitudes towards gifted children's education based on whether gifted children require a specific curriculum or not?

The Independent Samples t-Test was used by the researcher to identify if there are significant differences in teachers' attitudes towards gifted children's education regarding whether gifted children require a specific curriculum or not.

As shown by Table 20, the mean of attitudes of teachers who said that gifted children need a specific curriculum (yes), which is related to the dimension of needs and support, is (M = 4.21, SD = 0.183), which is higher than the mean of attitudes of teachers who said that gifted children do not need a specific curriculum (no) (M = 4.03, SD = 0.177).

Additionally, the mean of attitudes of teachers who said (yes), which is related to the dimension of resistance to objections, is (M = 2.85, SD = 0.271), which is higher than the mean of attitudes of teachers who said (no) (M = 2.79, SD = 0.0.277).

Lastly, the mean of attitudes of teachers who said (yes), which is related to the dimension of ability grouping, is (M = 3.99, SD = 0.272), which is higher than the mean of attitudes of teachers who said (no) (M = 3.90, SD = 0.247).

Table 20.

Results of the Independent t-Test of Attitudes of Pre-school Teachers According to Need a Curriculum.

Dimensions	Need Curriculum	N	Mean	SD	t-value	DF	P	Explanation
Needs and Support	Yes	276	4.21	0.183	-0.579	328	0.023*	p<0.05 Significant
	No	54	4.03	0.177				
Resistance to Objections	Yes	276	2.85	0.271	1.421	328	0.016*	p<0.05 Significant
	No	54	2.79	0.277				
Ability Grouping	Yes	276	3.99	0.272	-0.857	328	0.032*	p<0.05 Significant
	No	54	3.90	0.247				

** P is significant at the 0.05 level (2-tailed).*

The findings indicate that there are significant differences in teachers' attitudes toward gifted children's education concerning whether gifted children require a specific curriculum or not, in all dimensions, according to the needs and support, resistance to objections, and ability grouping in favor of those who said

that gifted children need a special curriculum. Gifted children require a specific curriculum, such as the differentiated curriculum that enables teachers to discover children's giftedness.

Qualitative Results

The explanatory sequence is conducted to follow up the quantitative results with qualitative data.

As a result, the qualitative data is used in the subsequent interpretation and clarification of the results from the quantitative data analysis.

The data from the in-depth semi-structured interview form is determined. Furthermore, the themes and sub-themes (categories) are identified and then analyzed using frequency distributions and percentages.

Regarding the first question, the characteristics of gifted children according to pre-school teachers' perceptions:

The findings of the in-depth semi-structured interview, as shown in Table 21, indicate that the teachers are aware of the characteristics of gifted children.

Two rounds of peer review are conducted: the first round, which focuses on the characteristics of gifted children, results in the identification of 9 themes and 28 sub-themes (categories).

While the second round of peer review includes the closely related themes as well as the sub-themes (categories). This round reveals the consensus on 7 main themes and 24 sub-themes (categories).

The teachers' responses are classified as follows: characteristics of mental 30%; cognitive 21%; psychomotor 4%; social 9%; creative 12%; personal 14%; and linguistic 10%.

Table 21.

The Characteristics of Gifted Children from the Point of View of Pre-school Teachers.

Themes	**Sub-themes (Categories)**
Characteristics Cognitive Total = 28 21%	1. Curiosity (10) 2. Asking questions (9) 3. Rapid learning ability (9)
Mental Characteristics Total = 41 30%	1. Excellent memory (7) 2. Ability to concentrate deeply (8) 3. Keen powers of observation (11) 4. Academic excellence (6) 5. Ability to play complex games (5) 6. Ability to connect ideas together (4)
Social Characteristics Total = 12 %9	1. Make social relationships (4) 2. Friendship sharing (6) 3. Interested in social issues (2)
Creative Characteristics Total = 17 12%	1. Unusual imagination (5). 2. Problem-solving ability (6) 3. Creative energy (6)
Psychomotor Characteristics Total = 5 4%	1. High level of energy (5)
Personal Characteristics Total = 19 14%	1. Calmness (2) 2. Self-reliance (3) 3. Self-confidence (3) 4. Leadership (9) 5. Flexibility (1)
Linguistic Characteristics Total = 14 10%	1. Use of long and complex sentences (4) 2. A large amount of vocabulary (5) 3. Expression fluency (5)

Some of the interviewers focus on the mental characteristics of gifted children:

T1: "They have minds that store and remember information; they have a good memory. They observe the somethings and someones carefully. They are able to concentrate deeply without getting bored".

T3: "They have a high level of mental skills. They have a strong memory and an ability to concentrate deeply. They play complex and challenging games. They are able to rapid learning".

T6: "They have a quick intuition and a strong memory. They prefer to play creativity and innovation games."

T14: "They have an excellent memory, exceptional academic performance, and keen powers of observation".

T18: "They have high academic achievement and the ability to connect ideas together quickly. They are doing well in school".

There are those who focus on the linguistic characteristics of gifted children:

T7: "They have a rapid learning, fluency of expression, a large amount of vocabulary, and complex sentences".

T15: "They have fluency of expression, they may read a great deal on their own, and prefer to use long and complex sentences".

While others emphasize the cognitive characteristics of gifted children:

T2: "The ability to learn reading and writing early. They are able to make good judgments and quick decisions. They have a curiosity and a love of knowledge and discovery. They ask many questions".

T16: "They are curious, have variety of interests, and ask many questions".

Some of the interviewers combine two characteristics of gifted children:

Mental and cognitive characteristics:

T11: "They have curiosity, intelligence, a strong memory, and observation skills. They are able to ask many questions".

T20 : "They are curious, they have great academic achievement"

Therefore, they are unusual thinkers".

Cognitive and personal characteristics:

T12: "They are calm and self-reliant. They have leadership skills and the ability to ask many questions and learn quickly. They are curious".

T15: "They have leadership skills, a love of curiosity and discovery, more information than their peers, and flexibility".

Creative and social characteristics:

T9: "They tend to discuss and dialogue with their friends and ask many questions. They are interested in social issues, readily make social relationships and share their friends, and are able to solve problems because they are quick-witted".

T17: "They are interested in social issues and have good communication skills with their friends. They have the creative energy to use many different alternatives and approaches to problem solving. Therefore, they are unusual thinkers".

There are those who combine more over two characteristics of gifted children:

T5: "They are able to learn quickly without requiring a lot of training courses, and they prefer complex games. They are able to connect ideas quickly and are very curious. They have fluency of expression because they have a large amount of vocabulary and use long and complex sentences. They have great academic achievement".

T4: "They have linguistic skills, intelligence, and a good memory. They tend to be self-reliant when carrying out activities, and prefer using puzzle games to be creative. They have a high concentration".

T8: "They have a strong memory, a wide imagination, and an ability to find relationships between ideas. Early language acquisition, leadership skills, making social relationships, friend sharing, physical skills".

T10: "They have confidence, curiosity, creativity, innovation, and strength of observation. They have the ability to communicate with their friends".

T13: "They have creativity, innovation, sensation, flexibility, leadership skills, communication skills, and imaginative expression. They are enthusiastic about unique interests and topics. They have an ability to discover and shape new ways".

T19: "They are willing to solve their problems, and they have an unusual imagination. They also have a high degree of energy. They work independently, and have leadership skills and self-confidence".

T20: "They have leadership skills and self-confidence. They have an unusually good vocabulary; they often have a large storehouse of long and complex sentences about a variety of topics".

T17: "They may read a great deal on their own, preferring to use long and complex sentences, thus having fluency of expression".

Research question #9: What are the preferred strategies and programs for teaching gifted children?

As shown in Table 22, the findings of the in-depth semi-structured interview reveal the variety of educational strategies and programs that teach for gifted children, and they revealed the preferred strategies and programs for teaching gifted children to meet their needs.

Two rounds of peer review are conducted: the first round, which focuses on the preferred strategies and programs for teaching gifted children, results in the identification of 4 themes and 16 sub-themes (categories), while the second round of peer review includes the closely related themes as well as the sub-themes (categories).

This round reveals consensus on 2 main themes and 13 sub-themes (categories), the two main themes are: gifted children education strategies 61% and gifted children education programs 39%.

The interviewers' responses about the preferred strategies and programs for teaching gifted children are summarized as:
acceleration 22%, curriculum compacting 16%, grouping 18%, pull-out 10%, independent study 5%, student-centered learning 14%, problem-based learning 17%, critical thinking 20%, play-based learning 8%, discovery learning 14%, education enrichment 33%, reality simulation 17%, project-based learning 7%.
(Please See Table 22).

Table 22.

The Preferred Strategies and Programs for Teaching Gifted Children

Themes	Sub-themes (Categories)	*f*	%	%
Gifted Children Education Strategies (76)	Independent Study	4	5%	61%
	Student-Centered Learning	11	14%	
	Problem-Based Learning	13	17%	
	Critical Thinking	15	20%	
	Play-Based Learning	6	8%	
	Discovery Learning	11	14%	
	Reality Simulation	11	17%	
	Project-Based Learning	5	7%	
Gifted Children Education Programs (49)	Education Enrichment	16	33%	39%
	Acceleration	11	22%	
	Curriculum Compacting	8	16%	
	Grouping	9	18%	
	Pull-Out	5	10%	

Here are some teachers' responses based on the preferred strategies and programs for teaching gifted children:

Gifted children's education strategies:

T14: "Gifted children do learn differently from their peers; they have an ability to think abstractly and exceptional problem-finding abilities. Therefore, critical thinking is an important strategy for gifted children. When children become better critical thinkers, they are more prepared to make better decisions in their professional or personal lives later on".

T5: "If the children have shown that they do not understand abstract concepts, it is preferable to follow the simulation of reality, and look for a real-life problem in the school, to embodiment of abstract concepts, and allow children to apply their talents. Consequently, a simple concept will be a real-world experience".

T4: "Presenting the most challenging concepts first to allow gifted children the chance to move on to deeper content. Therefore, if the children understand the most difficult part of a lesson, there is no need for them to sudy the simpler and easier concepts that lead up to it".

T7: "Creating gifted children's sense of belongingness through daily class meetings, which breaks down the idea that "I am better or smarter", and this will decrease the labelling of children as strong-weak, good-less-good, etc. Therefore, the children will be comfortable and have an interactive relationship with their peers".

T9: "Allow gifted children to give suggestions and solutions to solve the problems that they face in their learning, and the children will feel appreciated and that they are at the centered of the educational process".

T10: "Gifted children thrive with activities and assignments that let them explore topics of interest in new ways. For this reason, the children need to think in more abstract, sophisticated ways and be challenged to feel valued".

T16: "Playing can be used to develop children's skills and engage them in activities for enjoyment and learning. In addition, the reality simulation helps children develop skills; it provides a safe playing field for children to try new roles, skills, and responsibilities; and it motivates children through real-world, relevant events".

T17: "A school garden is a fantastic opportunity for children to gain hands-on knowledge about growing, playing, and discovering".

T18: "Gifted children have a strong sense of curiosity and they are enthusiastic about unique interests and topics. Therefore, the student-centered learning strategy enhances their skills and moves them from passive receivers of information to active participants in their own discovery process".

Gifted children's education programs:

T8: "To meet the individual needs of gifted children, it should not be just given them more of the same, but should be provided lessons that have more enrichment, and the purpose of enrichment is to provide extended learning opportunities and challenges. Enrichment gives the children more time to study concepts with greater depth, breadth, and complexity".

T1: "Gifted children need gifted education programs, enrichment, and accelerated programs in order to achieve continuous success, progress in school and help them develop gradually".

T2: "Grouping gifted children together according to their skills and talents, and they are put in special classes to meet their educational needs, therefore, it is preferable to adopt the grouping strategy".

T3: "Some children may be gifted with advanced language skills, and others may excel in mathematics, and after checking the characteristics of gifted children, they are sorted and grouped. It may take a long time, but the results can be more positive and meaningful".

T20: "Grouping gifted children with similarly motivated and intelligent peers will enable them to advance more quickly than children of a similar age".

T11: "Teachers can let gifted children research a new interest in a classroom topic, and that is done through engaging gifted to pull-out programs for one to four hours each week".

T12: "Gifted children may do basic calculations like the addition or subtraction of numbers with sums of less than 99 at pre-school and, therefore, earn credit at primary school. In this form of acceleration, it is beneficial. But, for some children, skipping a grade can be harmful to their emotional and social development. Therefore, this leads to being away from age-group peers".

T13: "If gifted children have a complete understanding of the mathematics curriculum being taught, a curriculum compacting strategy should be used to enable gifted children to skip normal content and substitute for the challenging content. Therefore, curriculum compacting enables gifted children to skip normal content that can be substituted for the challenging content and provides opportunities to learn advanced concepts".

T19: "Gifted children have a good memory and an ability to save a wide amount of information. They also learn quickly and early. Therefore, acceleration is a strategy to match the curriculum to children's abilities".

Some of the interviewers combine both strategies and programs for teaching gifted children:

T6: "Gifted children should take responsibility for their own learning. By using information gathered from the last lessons, the curriculum can be compacted

for gifted learners, which will offer related extension activities and more independence".

T15: "There are activities that allow students to design, create, and learn without limits, and there are after-school enrichment activities that give the children a chance to learn a new skill. Therefore, the children's learning should be extended by having them explore or research a topic in greater detail, in addition the problem solving skill and discovery learning strategy are critical for all children and they feel comfortable using throughout their lives".

Research question #10: Is the curriculum adequate to meet the needs of gifted children?

There are some teachers who show that the curriculum is adequate to meet the needs of gifted children. While others emphasize that the curriculum is inadequate to meet the needs of gifted children.

Gifted children need an education curriculum that enables them to achieve continuous advancement in their learning. Therefore, the curriculum should be integrated, comprehensive, and sufficient.

Two rounds of peer review are conducted: the first round, which focuses on the curriculum of gifted children, results in the identification of 3 themes and 20 sub-themes (categories), while the second round of peer review includes the closely related themes as well as the sub-themes (categories). This round reveals consensus on 2 main themes and 18 sub-themes (categories).

There are some teachers who show that the curriculum is adequate to meet the needs of gifted children, their percentage is 44%. The interviewers use some words to answer the research question about whether the curriculum is adequate to meet the needs of gifted children or not: sufficient, adequate, satisfactory, acceptable, appropriate, compatible, harmonious. While others emphasize that the curriculum is inadequate to meet the needs of gifted children, their percentage is 56%.

They also use some words to answer the research question about whether the curriculum is adequate to meet the needs of gifted children or not: insufficient, improved, developed, lacking, imperfect, unsatisfactory, unable, unqualified, modified. (Please see Table 23).

Table 23.

Investigating Whether the Curriculum is Adequate to Meet the Needs of Gifted Children or Not

Themes	Sub-Themes (Categories)	%
Adequate	Some of the words that interviewers use to answer the research question about whether the curriculum is adequate to meet the needs of gifted children or not: sufficient, adequate, satisfactory, acceptable, appropriate, suitable, compatible, harmonious	44%
Inadequate	Some of the words that interviewers use to answer the research question about whether the curriculum is adequate to meet the needs of gifted children or not: insufficient, improved, developed, lacking, imperfect, unsatisfactory, unable, unqualified, modified, inadequate	56%

Here are some teachers' responses about whether the curriculum is adequate to meet the needs of gifted children or not.

The curriculum is adequate to meet the needs of gifted children:

T1: "The curriculum is based on the needs of gifted children. The curriculum is in appropriate and adequate shape and reflects the needs of the individual."

T4: "The curriculum is sufficient to meet the needs of gifted children, and it is harmonious and comprehensive to meet their challenges."

T5: "The curriculum is satisfactory because it provides a framework for what gifted children learn."

T7: "Content goals for gifted children are acceptable and adequate; practices that take the individual needs of children into consideration are suitable."

T9: "The curriculum is adequate and competent; it provides gifted children with the necessary knowledge."

T14: "Curriculum adaptation is an important form of development that promotes meeting the needs of gifted children."

T15: "The curriculum is harmonious with gifted children's needs."

T19: "The curriculum is suitable for children because it is challenging and supportive of gifted children, and it provides real-world experiences."

T20: "The curriculum is compatible with gifted children's characteristics, and it is satisfactory and rich in opportunities for practicing social, intellectual, academic, and life skills."

The curriculum is not adequate to meet the needs of gifted children:.

T2: "There are learning gaps between what children are expected to have learned and what they actually need. Therefore, the curriculum is unable to fully meet their needs."

T3: "The curriculum needs to be improved to adapt it to the characteristics of gifted children."

T6: "There is a lack of proper teaching materials and teaching methods in the curriculum, and this creates a gap between gifted children and their needs."

T8: "The curriculum is insufficient and inadequate to meet the needs of gifted children; it is lacking in creativity and flexibility."

T10: "There is a need to ensure effective use of curriculum resources so as to meet the needs of gifted children and make the curriculum relevant to their needs."

T11: "The curriculum must be modified and improved to meet the needs of gifted children."

T12: "The curriculum is unsatisfactory because it does not provide sufficient scope for the cultivation of unique skills, interests, and attitudes."

T13: "The curriculum needs to be continuously developed based on gifted children's needs."

T16: "The curriculum did not offer enough of the gifted children's needs."

T17: "The curriculum is unqualified effectively, which is reflected in the poor performances of children and consequently causes dissatisfaction among parents."

T18: "The curriculum is designed generally by a set of objectives that relate to normal children, regardless of the gifted children's needs. Therefore, the curriculum is imperfect".

CHAPTER V
Discussions

UNICEF works in the State of Palestine to help children attain all their rights as well as realize and develop their full potential, which leads to future success. Therefore, the obstacles that children suffer from must be addressed in order for them to meet their needs. As a result, the Ministry of Education and Higher Education has taken great steps to improve the quality of education by promoting child-centered learning and teaching and by integrating skills with life (UNICEF, 2018).

As previously explained, gifted children are those who have certain intellectual, artistic, creative, leadership, or academic abilities that are superior to the average ability of students. Therefore, they need different educational services and a special curriculum (Syafril et al., 2020).

Early childhood experts are still developing tools and methods for identifying gifted children (Cetinkaya, 2020). As for this current study, the "Scale for Rating the Behavioral Characteristics of Gifted and Talented Students" was used to examine the teachers' perceptions towards the characteristics of gifted children. In addition, the "Scale for Attitudes towards Gifted Education" was used to examine the teachers' attitudes towards the education of gifted children. Additionally, the in-depth semi-structured interview was conducted.

Overall, the main purpose of the current study is to examine the perceptions and attitudes of pre-school teachers towards gifted children and their education in Palestine.

This chapter presents the discussion of findings that are related to quantitative data that was obtained from the questionnaires and qualitative data that was obtained from interviews, in addition to comparing them with the studies in the previous literature.

What are the major characteristics of gifted children, according to the perceptions of preschool teachers?

The quantitative analysis findings show that the mean of teachers' perceptions is at a high level in the five dimensions of the characteristics of gifted children. The five dimensions are: willingness to learn, expression characteristics, personality characteristics, learning characteristics, and mental characteristics.

Consequently, each dimension has a mean of greater than 3.5. While the mean of teachers' perceptions in all dimensions of the scale is 4.54, overall, the teachers have high and positive perceptions towards the characteristics of gifted children.

This is consistent with the findings of qualitative data in this study, which indicate that the teachers are aware of the characteristics of gifted children and have positive perceptions of the characteristics of gifted children, and their responses are categorized as: cognitive characteristics, mental, social, creative, psychomotor, personal, and linguistic.

In addition, the majority percentage of teachers' perceptions towards the characteristics of gifted children was mental characteristics, as it was 30%, and the teachers' responses are classified as follows: characteristics of cognitive 21%; psychomotor 4%; social 9%; creative 12%; personal 14%; and linguistic 10%.

There is a list of gifted children's characteristics, which include investigation and interest; emotional maturation; social development; creativity; abstract thinking; curiosity; asking questions, unusual imagination; leadership, using of long and complex sentences; expression fluency; interested in social issues, making social relationships; processing a large amount of vocabulary; problem-solving ability, which are all advanced stages of development.

Children who have mental characteristics that will lead to good cognitive characteristics, such as rapid learning ability, curiosity and asking questions, which is consistent with Şahin's study (2012).

Thus, the cognitive and mental characteristics will reflect on the child's personal characteristics, such as calmness, self-reliance, self-confidence, leadership, and flexibility. Accordingly, these characteristics will affect the creativity and innovation of children, and they will have creative characteristics such as an unusual imagination, ability to solve problems, and creative energy. Moreover, the linguistic or expression characteristics, which include use of long and complex sentences, processing a large amount of vocabulary, and fluency of expression. In addition, social characteristics, which include making social relationships, friendship sharing, and interest in social issues.

The results of the current study are in harmony with Aldosari's study results (2021) that showed that pre-school teachers believe gifted children have greater cognitive abilities than their peers.

Likewise, there is conformity in Bildiren's study results (2018) that demonstrated that gifted children have different characteristics in linguistic, cognitive, affective, and psychomotor skills than other children.

In addition, this is consistent with Altıntas and Ilgun's study results (2016) indicated that gifted children have characteristics that are superior to their peers, including creativity characteristics, academic characteristics, personality characteristics, physical characteristics, social characteristics, and congenital characteristics.

This emphasizes that gifted children have exceptional learning abilities and are characterized by cognitive, personal, social, psychomotor, and mental characteristics. Consequently, it is essential to identify gifted children because the identification process allows for the discovery of children who are hiding their talents, capabilities, and interests.

In general, teachers perceive gifted children to have abilities in language and thought, a keen sense of observation and extraordinary memory, an ability to comprehend material several grade levels above their age peers, a strong sense of curiosity, enthusiasm for unique interests and topics, and depth of perception. In addition, they learn more quickly and independently than other children of their own age, and they are extremely motivated, especially for difficult tasks. As a consequence, all teachers should recognize the characteristics of gifted children and identify their related academic and social-emotional needs.

Is there a significant difference in the teachers' perceptions towards the characteristics of gifted children regarding their academic qualifications?

The findings demonstrate that there are significant differences in teachers' perceptions based on their academic qualifications in the two following dimensions: personality characteristics and learning characteristics, in favor of master's degree holders. Pre-school teachers who have a master's degree have more knowledge, experience, and years of study. This may explain why they perceive the characteristics of gifted children. Meanwhile, there are no significant differences in the dimensions of mental characteristics, expression characteristics, and willingness to learn.

A similar conclusion was reached by Konrad and Gabrijelčič's study (2015) emphasized the importance of academic qualifications, further education, and professional training in identifying gifted children and their characteristics. The

findings revealed that some teachers have inadequate competence in identifying gifted children's characteristics and in the appropriate use of teaching strategies.

This is contrary to the findings of Kaya's study (2019) that indicated that there is no significant difference in teachers' opinions and attitudes according to academic qualifications in all dimensions of the scale.

Based on previous findings, there is a research gap in exploring teachers' perceptions of the characteristics of gifted children based on their academic qualifications. As a result, the teachers' perceptions, according to their academic qualifications, reflect the deficiencies in introducing training programs regarding the identification of gifted children into colleges and universities, and this emphasizes the need for more training programs related to gifted children.

Based upon the review of the literature, Renzulli (1992) summarized that the characteristics of teachers of gifted children that are necessary are advanced competence in the area of academic specialization and qualifications. And on the whole, gifted children require proper academic rigor. Consequently, in order to become teachers of gifted children, this requires first obtaining a bachelor's degree in a specific field of instruction in elementary or secondary education. Moreover, qualifying to teach the gifted also frequently requires a master's degree specific to teaching advanced learners.

In general, it is important to examine how teachers perceive gifted children's characteristics. Understanding the perceptions of teachers on this issue may be influenced by their academic qualifications. Consequently, they are able to provide new insights to help solve some of the difficulties that they faced in the identification of both gifted children, and this is what the findings indicated. In addition, when a teacher and a gifted child have a positive relationship, it will help the child have a strong sense of self-worth.

Is there a significant difference in the teachers' perceptions towards the characteristics of gifted children based on the years of experience of the teachers?

The findings reveal that there are no significant differences in teachers' perceptions towards the characteristics of gifted children according to the teachers' years of experience. Therefore, the number of experience years doesn't seem to have a significant impact on how teachers perceive gifted children.

Contrary to the findings of Polyzopoulou et al.'s study (2014), which indicated that teachers' perceptions towards the characteristics of gifted children are influenced by their years of experience.

A contradictory conclusion was also reached by Scepanovic and Lazarević 's study (2019), which demonstrated that the teachers' years of experience significantly affected their perceptions of gifted children. Teachers who do not have sufficient experience of engaging with pupils who are gifted do not have positive perceptions about their characteristics. So, teachers need to be given more chances to learn how to recognize, work with, and teach gifted children and how to understand their characteristics and educational needs.

Additionally, the teachers who have more knowledgeable about characteristics of gifted children have positive perceptions toward them.This is because experience teaching with gifted children is very important and the identification of gifted children is essential for the gifted children's teacher to meet their needs.

On the whole, there are major differences in the perceptions of teachers towards the characteristics of gifted children based on their years of experience. Therefore, teachers who have a lot of potential, experience, and have worked with gifted children are better teachers for gifted children than teachers who have never worked with gifted children, and have more positive perceptions towards them.

Is there a significant difference in the teachers' perceptions towards gifted children's characteristics based on whether gifted children require a specific curriculum or not?

The findings indicate that there are significant differences in teachers' perceptions based on whether gifted children require a special curriculum or not in some dimensions, such as personality characteristics, expression characteristics, and mental characteristics, in favor of those who believe that gifted children require a special curriculum. It seems that mental characteristics have an effect on personal characteristics as well as characteristics of expression. Therefore, they are all considered integrative characteristics, each affecting the other. At the same time, there are no significant differences in the other dimensions, such as learning characteristics and willingness to learn.

These basic findings are consistent with Watters and Diezmann's study (2003) showing that there are learners with exceptional talents and abilities in the

majority of Australian schools, and they need a special curriculum. Therefore, the development of policies and programs that are related to gifted learners and their implementation are necessary to assist these learners to reach their potential.

Moreover, this is consistent with what has been found in Bate et al.'s study, which found that gifted children need a special curriculum and concluded that certain aspects of the curriculum can be adapted for gifted learners in order to meet their needs.

Gifted children have different learning, emotional, and social needs than their peers, and they need learning, social, and emotional support. Therefore, curricula for gifted children require coherent and comprehensive frameworks to achieve those objectives and goals.

In general, gifted children need a special curriculum that gives them knowledge and skills, a framework that helps them improve their conceptual learning, thinking, and emotional domain skills, as well as well-designed learning experiences that combine both enrichment and acceleration strategies, in addition to instructional strategies that keep them engaged at the appropriate level of challenge.

What are the attitudes of pre-school teachers towards gifted children's education?

The findings of the analysis indicated that the mean of teachers' attitudes in all dimensions of the scale was 3.85, and the three dimensions are: needs and support, resistance to objections, and ability grouping. Therefore, pre-school teachers have a high level of awareness and positive attitudes toward gifted children's education; that is, they are knowledgeable about gifted children's education.

This result ties well with Sayı's study (2018), which indicated that the teachers had positive attitudes towards all parts of the training program for gifted education.

Moreover, these findings are in accordance with Polyzopoulou et al.'s study findings (2014) that found teachers' attitudes towards gifted children's education were positive.

Overall, gifted education is a broad term that refers to a set of strategies, procedures, and theories that are employed in the education of gifted children.

Therefore, gifted children need a public school with a self-contained gifted program, or a school specifically for gifted learners.

In contrast with the above findings, Kaya's study (2019) revealed that classroom teachers lack understanding of diagnosing and educating gifted children and need training in this area.

Gifted children's education is an important endeavor that aims to achieve outcomes that flow into the bowl of progress and the creation of a prosperous and advanced society. It is not solely about gifted children's education and their skills, abilities, and talents; rather, the educational process aims to broaden and stimulate their creative potential, as well as provide them with opportunities for innovation in all fields of education. This leads to improving the quality of gifted children's education by focusing on some effective and constructive methods, activities, and strategies. Therefore, gifted children need appropriate teaching methods and strategies for their abilities and talents.

In addition, a teacher's personality may play a role in teaching gifted children. Therefore, it is the duty of a teacher to take students' interests into consideration when developing programs for gifted children.

Is there a significant difference in the teachers' attitudes towards gifted children's education regarding their academic qualifications?

These findings indicate that there are significant differences in teachers' attitudes towards gifted children's education based on teachers' academic qualifications in the following three dimensions: needs and support, resistance to objections, and ability grouping in favor of master's degree holders. In general, gifted children's education requires teachers who have a master's degree to provide children with advanced development, creative and academic challenges, and a stimulating learning environment.

In general, to appropriately identify and develop gifted children, teachers must be aware of the educational strategies, practices, and instruments that are related to gifted children's education. In addition, they should at least have a bachelor's degree.

In line with previous findings, Sayı's study (2018) also found the teachers have a positive opinion of the training program for gifted education, and there is a significant difference in their opinions according to the pedagogical qualifications of the teachers.

This is consistent with what has been found in findings by Uğraş et al.'s study (2016) that confirmed that pre-school teachers reported that gifted children differed significantly from normal children in their characteristics. Pre-school teachers proposed that a new curriculum should be created to develop the skills of these children, and that the teachers who would teach that curriculum should have academic qualifications in gifted children's education, be trained in specialized education, and have enough information about gifted children.

A similar conclusion was reached by Konrad and Gabrijelčič (2015), who revealed the importance of education, professional training and academic qualifications in the field of gifted children's education. Therefore, pre-school teachers who do not have enough information about gifted children have inadequate competence in identifying gifted children's characteristics and in the appropriate use of teaching strategies.

Contrary to the findings of Mills's study (2003), which demonstrated that certification and formal training in gifted education may not be sufficient factors to consider when selecting teachers of gifted students, it may be equally important to select teachers with a strong background in the academic discipline and those who have a passion for the subject matter.

Is there a significant difference in the teachers' attitudes towards gifted children's education based on the years of experience of the teachers?

The findings reveal that there are significant differences in teachers' attitudes according to their years of experience in gifted children's education in the following three dimensions: needs and support, resistance to objections, and ability grouping, in favor of those with more than 6 years of experience.

Overall, the findings confirmed that the number of years of a teacher's experience significantly affects their attitudes towards gifted children education. That is, the more years of experience the teachers have, the more positive their attitudes are towards the education of gifted children.

In addition, the results of the previous research question showed that preschool teachers have positive attitudes towards the education of gifted children, and this appears consistent with the results of the current question, which revealed teachers' awareness of the necessity to meet and support children's needs, in addition to their response to services for gifted children. They also demonstrated their ability to create an effective educational environment for gifted children.

wherein teachers' experience plays crucial role in enhancing creative and inventive achievements in gifted children. On the other hand, gifted children are positively influenced by their teachers when they are aware of their educational needs and have experience in gifted children's education.

This is congruent with the the findings of Sanchez-Escobedo's study (2020) which found there is a positive relation between teachers' experience and training and their knowledge of gifted students. This is because teachers' experience and knowledge of gifted children is essential for enhancing teacher-training programs concerning gifted education.

In contrast with the above findings, Kaya and Tortop's study (2020) showed that there are no significant differences in teachers' perceptions of gifted children on the following three dimensions: needs, support, and resistance to objections according to years of experience. However, there is a significant difference in the ability grouping dimension in favor of those with 11–19 years of experience. The second result is that although counselors have a positive attitude towards gifted education, the counselors' years of experience slightly affect their attitudes toward teaching gifted children. Therefore, there are problems in the education and diagnosis of gifted students.

Is there a significant difference in the teachers' attitudes towards gifted children's education based on whether gifted children require a specific curriculum or not?

The findings indicate that there are significant differences in teachers' attitudes toward gifted children's education according to whether gifted children need a special curriculum or not, in all dimensions, regarding needs and support, resistance to objections, and ability grouping in favor of those who said that gifted children need a special curriculum.

A similar conclusion was reached by Uğraş et al.'s study (2016), which demonstrated that the pre-school teachers proposed that a new curriculum should be created to develop the skills of gifted children, and that the teachers who would teach that curriculum should be trained in specialized education and have enough information about gifted children.

Furthermore, a similar pattern of results was obtained in Watters and Diezmann's study (2003), which confirmed that there are learners with exceptional talents and abilities. Therefore, the development of policies and curriculum that are

related to gifted learners and their implementation are necessary to assist these learners to reach their potential.

In addition, the findings are directly in line with Papadopoulos's study (2021) findings that revealed that gifted children need to implement a social-emotional learning curriculum in their schools.

Moreover, this is consistent with Bate et al.'s study (2012) that explained that the curriculum was designed by specialist teachers who work with gifted learners, which enables teachers to respond to individual learners' needs and understand the methods that support the effectiveness of the curriculum.

Gifted children need a special educational curriculum that meets their needs and abilities so that they can make continuous progress in their learning and because the public education program is not yet ready to meet the needs of gifted children. Therefore, it is preferable to choose an appropriate academic environment that will allow them to maximize their potential.

Another benefit of gifted curriculum is that individuals who participated in gifted programs maintained their interests over time and remained interested in creative and productive work after finishing college and graduate school.

The additional advantage of gifted education program is to develop the all characteristics of gifted children. From this standpoint, all teachers should recognize the gifted education program, personal, creative, psychomotor, linguistic, cognitive, and affective characteristics of gifted children, and identify their related academic, social, and emotional needs.

Without a doubt, gifted children learn differently than normal children, but questions remain about the optimal curriculum for giving gifted children the best opportunity to realize their full potential in many areas.

Anyway, It is the responsibility of the classroom teacher to identify gifted children and provide them with a special educational curriculum to meet their needs. Therefore, it is important for all teachers of gifted children to familiarize themselves with the curriculum strategies, educational practices, and pedagogy theories to enhance the learning of gifted students.

What are the preferred strategies and programs for teaching gifted children?

The in-depth semi-structured interview findings demonstrate the variety of educational programs that are used to teach gifted children, and they reveal the

preferred strategies for teaching gifted children to meet their needs. In order to provide an appropriate educational context for gifted children, teachers must be able to recognize gifted children using adequate educational strategies and programs be knowledgeable about several aspects of gifted children's education, such as identification and be aware of the social value of their education.

There are many strategies and programs that pre-school teachers will often use to meet the needs of gifted children. The interviewers' responses were summarized as: acceleration, curriculum compacting, grouping, pull-out, independent study, student-centered learning, problem-based learning, critical thinking, play-based learning, discovery learning, education enrichment, reality simulation, project-based learning.

This indicates that teachers are aware of the teaching strategies and programs that are used in educating gifted children, which is consistent with the findings of the two previous research questions, which revealed that teachers have a positive attitude toward the ability grouping dimension. That is, putting gifted children in special classes. This confirms the need for a special curriculum for gifted children.

Overall these findings are in accordance with findings reported by Watters and Diezmann's study (2003) that demonstrated that there are gifted learners with exceptional abilities, and there are many broad strategies for gifted children's support.

A similar conclusion was reached by Altıntas and Ilgun's study (2016) indicated that it is necessary to create an appropriate educational environment for gifted children and to employ appropriate strategies to meet their educational needs.

Is the curriculum adequate to meet the needs of gifted children?

The findings indicate that there are some teachers who showed that the curriculum is adequate to meet the needs of gifted children 40%. While others emphasized that the curriculum is inadequate to meet the needs of gifted children 60%.

In summary, gifted children need an education curriculum that enables them to achieve continuous advancement in their learning, and should be integrated, comprehensive, and sufficient.

These findings are consistent with VanTassel-Baska's study (2021) that stated the curriculum and teaching methods that are designed for all learners have a

lot of real promise for the gifted, and one of the best strategies to work with gifted learners is to use inquiry.

The study emphasizes that education is a fundamental human right and thinks that it should, as far as possible, be appropriate for each individual. Moreover, the gifted education curriculum should include some skills that are differentiated in content and assessment from the public curriculum, such as creative thinking, which helps children to search for innovative solutions that enable them to solve their problems. Therefore, gifted children will recognize their needs, strengths, and potential and will develop skills and ideas to achieve their abilities.

Consequantly, gifted children require a curriculum that not only challenges their current abilities but also pushes them into new areas of learning and allows gifted children to enhance and expand their understanding through content enrichment strategies that provide them with the opportunity to engage with a challenging curriculum.

From this standpoint, the curriculum should be integrated, comprehensive, and sufficient, and with the use of the right strategies, the needs of gifted children will be met, and their abilities will be developed.

In short, gifted education, in general, seeks instructional practices and strategies and programs that move gifted children from basic understanding to deeper levels of understanding. Thus, it is important to keep meeting the needs of gifted students with the rigorous and challenging curriculum that these learners need to make continuous progress.

CHAPTER V
Conclusions and Recommendations

This study is based on the mixed method approach and seeks to examine the perceptions and attitudes of pre-school teachers towards the characteristics of gifted children and their education in Palestine.

This chapter presents the conclusions and recommendations based on the research findings that were obtained from the main research questions and sub-questions.

Conclusion

The purpose of the current study is to examine the perceptions and attitudes of pre-school teachers towards gifted children and their education in Palestine.

By exploring pre-school teachers' perceptions of gifted children's characteristics according to their academic qualifications and years of experience, also whether gifted children need a special curriculum or not. Additionally, exploring pre-school teachers' attitudes towards gifted children's education according to their academic qualifications and years of experience, as well as whether gifted children need a special curriculum or not, identifying the appropriate educational strategies and programs for teaching gifted children in order to meet their needs, determine whether the curriculum is adequate to meet the needs of gifted children or not.

Gifted children are defined as those who have exceptional abilities, advanced potential, and demonstrate outstanding levels of aptitude in one or more activities compared with their peers.

In light of the above, the findings of this study lead to the following conclusions:

The main conclusion that can be drawn is that pre-school teachers have a high level of awareness and positive perceptions toward gifted children's characteristics; that is, they are knowledgeable about gifted children's characteristics.

Overall, the findings demonstrate that there are significant differences in teachers' perceptions according to academic qualifications in the two following dimensions: personality characteristics and learning characteristics in favor of master's degree holders. At the same time, there are no significant differences in

the three following dimensions: expression characteristics, mental characteristics, and willingness to learn.

In addition, the findings explain that there are no significant differences in teachers' perceptions towards the characteristics of gifted children according to the teachers' years of experience. That is, the number of years of experience has no effect on teachers' perceptions of gifted children's characteristics.

Moreover, the findings provide additional information about whether gifted children need a special curriculum or not, wherein the findings indicate significant differences in teachers' perceptions according to whether gifted children need a special curriculum or not in the following dimensions: expression characteristics, personality characteristics, and mental characteristics, in favor of those who say that gifted children need a special curriculum. At the same time, there are no significant differences in the other dimensions, such as learning characteristics and willingness to learn.

This is an important finding in the knowledge that pre-school teachers have a high level of awareness and positive attitudes toward gifted children's education; that is, they are knowledgeable about gifted children's education.

More generally, the main findings are in line with sub-findings that show that there are significant differences in teachers' attitudes toward gifted education based on their academic qualifications in the three following dimensions: needs and support, resistance to objections, and ability grouping in favor of master's degree holders.

Importantly, the findings confirmed that the number of years of a teacher's experience significantly affects the teachers' attitudes towards gifted children. Therefore, the findings provide evidence that there are significant differences in teachers' attitudes according to their years of experience in gifted children's education in the dimensions of resistance to objections, ability grouping, and needs and support in favor of those with more than 6 years of experience.

The previous findings confirm this conclusion that argues whether gifted children need a special curriculum or not. Overall, the results demonstrate significant differences in teachers' attitudes toward gifted children's education according to whether gifted children need a special curriculum or not, in all dimensions, regarding needs and support, resistance to objections, and ability grouping in favor of those who said that gifted children need a special curriculum.

On this basis, the in-depth semi-structured interview findings demonstrate the variety of educational programs that are used to teach gifted children, and they reveal the preferred strategies for teaching gifted children to meet their needs, as: acceleration, curriculum compacting, grouping, pull-out, independent study, student-centered learning, problem-based learning, critical thinking, play-based learning, discovery learning, education enrichment, reality simulation, project-based learning.

In final conclusion, it seems that there are some teachers who show that the curriculum is adequate to meet the needs of gifted children, while others emphasize that the curriculum is inadequate to meet the needs of gifted children. In short, gifted children need an education curriculum that enables them to achieve continuous advancement in their learning and should be integrated, comprehensive, and sufficient.

Recommendations

The Palestinian Government declared its intention to continue its efforts to achieve its goal of guaranteeing quality and inclusive education for all (State of Palestine, 2018). As a result, attention will be given to an important issue, that of gifted children in pre-school, emphasizing the necessity and importance of understanding the characteristics of gifted children and how to teach them through adequate educational practices, strategies, and programs to meet their needs.

Recommendations According to Findings

The following recommendations are made to policymakers, practitioners and Ministries of Education:

1. It is proposed to create an international cooperation platform with professionals who work with gifted children to share their experiences and best practices for teaching gifted children, and it might be an inspiration for all other countries.
2. It is suggested that Palestinian universities adopt bachelor's and master's programs related to gifted children at the pre-school stage.
3. It is recommended that the kindergarten or pre-school stage should be available in public primary schools, and for all children.
4. It will be important that teachers are trained in methods of early identification of gifted children and adequate educational strategies for teaching these children. In addition to a comprehensive guide for gifted children's teachers,

this will help teachers become more aware of and understand the needs of gifted children better.

5. It is suggested that the Ministry of Education formulate a special vision and educational goals that define the priorities of gifted children's education.
6. Providing financial support in order to provide seminars and workshops for teachers of gifted children.
7. Pre-school teachers should inform parents about the giftedness identification procedure so that the gifted child can be identified at a young age.
8. The educational curriculum should recognize and respect the individual differences of gifted children in order to allow them to gain access to adequate educational opportunities that allow them to fully develop their abilities. This is both for their individual benefit and the benefit of society as a whole. Therefore, no country can afford to waste its abilities and human resources.
9. In the meantime, it is advised that the pre-service teacher training programs offer strategies for the identification of gifted children, and all individuals who work with children (parents, teachers, social workers, doctors, and ministries of education) should have sufficient information about gifted children.
10. It is suggested that the normal school system should be made adaptable enough to meet the gifted children's needs. Therefore, enrichment and acceleration of the curriculum are recommended.
11. It is proposed that the Palestinian Ministry of Education establish a committee comprised of sociologists, psychologists, and educationalists with relevant specializations in gifted children.

Recommendations for Further Research

This study is a first step that can be followed by further research:

1. Future studies could be conducted on more participants. This is helpful because it will produce more accurate and broad findings, allowing for comparisons and providing a more profound perspective.
2. Future studies may include a larger sample, such as gifted children and their parents.
3. It is recommended that content analysis be conducted on the studies that explore gifted children in order to improve identification procedures.
4. Future research could focus on experimental research to investigate the characteristics of gifted children and their education.

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APPENDICES

Appendix A

Approval from Ethics Committee of Near East University

NAER EAST UNIVERSITY

SCIENTIFIC RESEARCH ETHICS COMMITTEE

30.07.2021

Dear Reem Mashhour Jawabreh

Your application titled "**Perceptions and Attitudes of Pre-school Teachers Towards Gifted Children and Their Education in Palestine**" with the application number NEU/ES/2021/712 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

Direnç Kanol

Appendix B

Consent Form

Near East University

Institute of Graduate Studies

Informed Consent Form

I, _____ hereby agree to participate in the research thesis of Reem Jawabreh entitled: "Perceptions and Attitudes of Pre-school Teachers Towards Gifted Children and Their Education in Palestine".

I have read and understood what participation entails as set out in the information sheet. I have had an opportunity to ask questions and I am satisfied with the answers I have received.

I freely agree to participate in this research project as described and understand that:

- Participation in this study is voluntary.
- No information that may identify me will be included in the research report, and my responses will remain confidential.
- I may withdraw information from the study at any time.
- There are no risks or benefits associated with the study.
- I may choose not to answer any questions that I would prefer not to answer.
- The study may be written up for publication in a journal or presented at a conference; therefore, raw data will be stored safely and destroyed when the thesis discussion is completed.

Signature:

Date:

Appendix C

Tools of the Study

The Scale for Rating the Behavioural Characteristics of Gifted and Talented Children (1)

My dear colleague

This questionnaire form has been prepared for the doctoral dissertation study on " Perceptions and Attitudes of Pre-school Teachers Towards Gifted Children and Their Education in Palestine". The purpose of the survey is to take advantage of your valuable opinions. It will be sufficient to mark the option (X) that suits you. The opinions given in this survey will only be used for research. Therefore, you do not need to write your name. Thank you for your interest in the survey and your sincere answers.

Personal Information

1. Your gender: a) Female b) Male
2. Your academic qualification:
3. School district where you work: a) Rural b) Urban
4. Experience

() 1-5 years

() 6-10 years

() 11-15 years

() 16-20 years

() 21 years and above

5. How many students do you think are gifted in your class?
6. Would you recommend preparing a program for gifted students?

≠	Items and Dimensions	1	2	3	4	5
Willingness to Learn	1. They are very sensitive to events around them and in their environment.					
	2. They are patient.					
	3. They want their rules to be accepted.					
	4. They like collecting stones and insects.					
	5. They are perfectionists.					
	6. They are curious.					
	7. They are very sociable.					
	8. They want people to respect their interesting ideas and dreams.					
	9. Their reasoning talent is very sophisticated.					
Linguistic	10. They express details in their ideas.					
	11. Eager to take part in reading and writing activities.					
	12. Physically more developed compared to their peers.					
	13. Ask too many questions.					
	14. Like reading books that are one-two years above their grade.					
	15. Like a challenge.					
	16. Have the talent to openly present detailed and productive ideas.					
	17. Easily learn and remember.					
Personality	18. Physically energetic.					
	19. They have a highly-developed imagination.					
	20. They are so sensitive that their feelings can get hurt easily.					
	21. Don’t like to be ordered to do something.					
	22. They place themselves as leaders in groups.					
	23. Make friends with people that are one-two years older than themselves.					
Learning	24. Successful in dance, drama and music.					
	25. They don’t need to study.					
	26. Can remember something they heard for a long time.					
	27. Can remember something they read for a long time.					
	28. They have their original interests.					
	29. Have the feature to question existing rules.					
Mental	30. They have acquired abstract concepts regarding things =					
	31. Have high mental energy.					
	32. Like solving puzzles, mazes and other mental games.					
	33. Have a high ability to achieve academic success.					

The Scale for Attitudes about the Gifted and their Education (2)

≠	Items	1	2	3	4	5
Needs and Support	Gifted children are often feeling bored in preschools because their educational needs are not adequately met.					
	Gifted children are wasting their time in regular preschools because their educational needs are not adequately met.					
	The specific educational needs of the gifted are too often ignored in our preschool.					
	The society must develop the talents of gifted children to a maximum.					
	*Our preschools are already adequate in meeting the needs of the gifted.					
	Supplementary funds should be invested for gifted children.					
	The regular preschool programs reduce the intellectual curiosity of gifted children.					
Resistance	*Special programs for gifted children have drawback of creating elitism.					
	considered a mark of *Special educational services for gifted are privilege.					
	*Gifted children might become vain or egotistical if they are given special attention.					
Ability Grouping	When the gifted children are put in special classes, their educational needs will be adequately met.					
	*When gifted children are put in special classes, other children will feel undervalued.					
	*Gifted children should be left in regular classes, since they serve as an intellectual stimulant for the other children.					
	*When children are separated into gifted groups and other groups, this will increase the labeling of children as strong-weak, good-less good, etc.					

Appendix D

The Ministry of Higher Education Consent

State of Palestine
Ministry of Education
Center for Educational Research and Development

دولة فلسطين
وزارة التربية والتعليم
مركز البحث والتطوير التربوي

الرقم: و ت /منكم داخلية/ ٢٩٣
التاريخ: 21 / 4 /2021م

حضرة الأخ مدير عام التعليم العام المحترم

"تسهيل مهمة بحثية"

يهديكم مركز البحث والتطوير التربوي أطيب تحية، ويرجو منكم التكرم بتسهيل مهمة الباحثة:

"ريم مشهور جوابرة"

من **Near East University** للحصول على المعلومات اللازمة لإعداد دراستها بعنوان:

" Characteristics of Gifted Children by Perspectives of the Pre-school Teachers"

ملاحظات:

- تتضمن الدراسة استهداف طلبة مرحلة ما قبل المدرسة (رياض الأطفال) التابعة للحكومة وليست الخاصة.
- ت/يتولى الباحث/ة أنشطة جمع البيانات، بتنسيق مع "منسق البحث والتطوير والجودة" في المديرية.
- الاستجابة على الأدوات البحثية من قبل عينة المبحوثين طوعية.
- نظراً لظروف الجائحة يتم تطبيق أدوات البحث عبر النماذج المحوسبة دون تواصل وجاهي مع المبحوثين.

مع الاحترام،،

د. محمد مطر
/مدير مركز البحث والتطوير التربوي

دولة فلسطين
وزارة التربية والتعليم

نسخة:
عطوفة وكيل الوزارة المحترم.
عطوفة الوكلاء المساعدين المحترمين.
د. Dr.Ipek Danju– المحترم/ المشرف على الدراسة– بريد الكتروني ipek.danju@neu.edu.tr

Appendix E

Turnitin Similarity Report

Reem Jawabreh Thesis (PhD)

ORIGINALITY REPORT

14%	10%	6%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.mdpi.com Internet Source	2%
2	researchoutreach.org Internet Source	2%
3	digitalcommons.liberty.edu Internet Source	1%
4	stars.library.ucf.edu Internet Source	1%

Curriculum Vitae

1. Personal Information

Full Name: Reem Mashhour Jawabreh

Address: Tulkarm, West Bank, State of Palestine

Email: reem.jawabreh@stu.najah.edu

2. Education

1. High School Certificate, Scientific Section, Al-Adawiya Secondary School, Tulkarm, State of Palestine, 2007.
2. Bachelor Degree in Mathematics, Faculty of Science, An-Najah National University, Nablus, State of Palestine, 2013.
3. Master Degree in Method of Teaching Mathematics, Faculty of Graduate Studies, An-Najah National University Nablus, State of Palestine, 2017.
4. PhD Candidate in Educational Programs and Instruction, Faculty of Graduate Studies, Near East University, Nicosia, Cyprus, 2018 – 2022.

PUBLICATIONS

Title	Publication Year
• The Effect of "Daniel's Model" on Seventh Grade Female Students Achievement and Tendency towards Mathematics in the Governmental Schools in Tulkarm.	2019
• Content Analysis of Articles That Related to the Use of Google Classroom and Gamification in Education from 2016 to 2020.	2020
• Quality of Pre-school Learning Environment in Palestine.	2020
• Content Analysis of Curriculum Development Related Studies During: 2000-2019.	2021
• E-learning and its Impact on the Educational Outcomes during the COVID-19 Pandemic in the Palestinian (Universities in Gaza Strip as Model).	2021
• Exploring the Characteristics of Gifted Pre-School Children: Teachers' Perceptions.	2022

CONFERENCES

Name of Conference	Place
• Technology Integration in Higher Education.	Palestine
• Information Security in the Higher Education.	Iraq
• International Virtual Conference on Interdisciplinary Educational Reflections.	Nicosia
• E-learning and its Impact on the Educational Outcomes during the COVID-19 Pandemic in the Palestinian (Universities in Gaza Strip as Model).	Turkey
• International Virtual Conference on Interdisciplinary Educational Reflections.	Nicosia
• International Virtual Conference on Interdisciplinary Educational Reflections.	Nicosia
• Micro learning in the Digital Age.	Iraq
• Interactive Content Design and Students' Assessment Tools for Distance Learning.	Maghreb