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Teachers' and Principals' Perceptions of Giftedness and Gifted Programs

By

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Dedication Page

To my loving and supportive husband

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Teachers' and Principals' Perceptions of Giftedness and Gifted Programs

Dana Al Zoubi

ABSTRACT

The existent body of knowledge lacks a universally unified definition of the giftedness concept. Yet, it may be described as the manifestation of exceptional levels of aptitude and competence among individuals. Gifted programs were recognized to be effective in nurturing gifted students' abilities and promoting their academic achievements. However, in Lebanon, giftedness is largely neglected both as an educational program and as a social construct. Driven by this neglect, the purpose of this study was to explore teachers' and principals' perceptions of giftedness and gifted programs in the Lebanese context. A mixed methods approach was used to gather quantitative and qualitative data from eleven private schools in Lebanon. The quantitative data was collected through a questionnaire which measured elementary teachers' conceptions of giftedness and gifted programs provisions. The qualitative data was gathered through interviews with school principals. The interviews assessed principals' perceptions of giftedness and gifted education provision. The sample consisted of 128 elementary teachers and nine school principals. The study's results revealed that both principals and teachers highly supported and held positive attitudes toward gifted program provisions and gifted students' needs. However, none of schools have established a formal program

for gifted students. This study is among the first studies to examine teachers' and principals' perceptions of giftedness and gifted programs in Lebanon. As such, further complementary research on this topic is recommended. Additionally, this research's finding informs recommendations practice and policy.

Keywords: Giftedness, gifted program, perception, principal, teacher

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Introduction

1.1 Statement of the Problem

Giftedness is a complex multidimensional concept that can be found among individuals from diverse backgrounds. It is manifested through outstanding levels of aptitude or competence in one or more domains, including structured area activities (e.g. mathematics, music and language) and sensorimotor skill sets (e.g. painting, dance and sports) (National Association for Gifted Children [NAGC], 2007). Giftedness is a potential that has significance both in learning and in learning outcomes (Renzulli, 2012). Despite its significance, the existent body of knowledge lacks a universally unified definition of the giftedness concept. To exacerbate the matter, giftedness is highly heterogeneous across individuals with no 'one size fits all' (Sternberg, 2007). As such, giftedness is more likely to be contextually constructed, by which its conception is contingent upon social influences (Freeman, 2006; Sak, 2011; Sternberg, 2007).

In the United States, gifted education has been the focus of attention for the last few decades. The recent trend in many American high schools is to place gifted students in Advanced Placement classes, International Baccalaureate, dual-credit classes, distance education classes, seminars and/or residential schools, as opposed to differentiating instruction in the regular setting (National Association for Gifted Children, 2009). In contrast, Lebanese schools do not provide services for the gifted, as neither the Lebanese law nor the revised national curriculum mandate special provisions for gifted students (Sarouphim, 2010; 2015). In the same token, programs and instruments that identify

gifted students, address their needs, and enhance their learning experiences through different instructional practices are largely absent in the Lebanese educational context. Hence, the research problem addressed in the current study, originates from the neglect of gifted students in the Lebanese educational system.

Marland (1972) gave a potent call to Congress through stating: "intellectual and creative talent cannot survive educational neglect and apathy" (p. 6). Marland's influential report indicated that "gifted and talented youth are the most underserved group of students who have special educational needs" (p. 42). This study echoes Marland's (1972) call in the Lebanese context.

1.2 Purpose of the Study and Research Questions

Driven by the neglect of 'giftedness' in Lebanon, this study explored Lebanese educators' views of the concept. Specifically, the study examined Lebanese teachers' and principals' perceptions of giftedness and gifted program provisions in private schools at the elementary level. The focus was on the elementary level, since most elementary teachers are homeroom teachers who spend most of the day with the same students. Thus, their perceptions were considered of great significance. The focus was on the following: (1) conceptions of giftedness, (2) perceptions of gifted programs and (3) provisions for gifted students. As such, this study attempted to answer the following research questions:

1- What are elementary teachers' perceptions of giftedness?

2- What are elementary teachers' perceptions of gifted programs?

3- What are school principals' perceptions of giftedness?

4- What are school principals' perceptions of gifted programs?

1.3 Rationale

Perceptions and attitudes play a vital role in individuals' behavior (Ajzen, 2012). The terms perceptions and attitudes have been employed interchangeably in the literature. Perception refers to interpreting sensations and producing an experiential meaning of the world around us (Durmaz & Diyarbakirlioglu, 2011). 'Attitude' refers to the mental state of readiness influencing an individual's response to situations, people and ideas (Bordens & Horowitz, 2002; Donerlson, 2008). In the pedagogical context, attitudes and perceptions are believed to be acquired from a set of cultural beliefs and values (Stern & Keislar, 1975). Thus, educators' perceptions impact their behavior in various educational settings.

Educators' perceptions and attitudes play a significant role in the success and failure of educational policy and practice (Meister, 2010; Ryan & Cooper, 2013). In the giftedness context, educators have a substantial impact on students' educational development (Clark, 2013; Geake& Gross, 2008; Maker & Shiever, 2010; Plunkett & Kronborg, 2011). They play an important role in delivering differentiated curricula and educational services to enable gifted students to excel and reach their full potential (Clark, 2013; Croft, 2003; Feldhusen, 2001; Henderson, 2006; Kaplan, 2009). On the other hand, educators' negative attitude towards offering special services to gifted students might result in withholding provisions for gifted learners (Al Qarni, 2010; Curtis, 2005; Ryan & Cooper, 2013), as perceptions and attitudes moderate behavior (Hsieh, 2010; Park & Oliver, 2009).

Teachers' perceptions affect their work performance (Landvogt, 2001), and play a significant role in their identification of gifted students (Clark & Peterson, 1986;

Jacobs & Harvey, 2010; Richardson, 1994). Additionally, teachers' predetermined conceptions of gifted students guide their willingness to teach these students as well as their choice of instructional strategies (Berman, Schultz, & Weber, 2012). Extant studies have shown that teachers' perceptions affect both their own teaching practices and their gifted students' performances (McAlpine, 2004; Miller, 2009; VanTassel-Baska & Stambaugh, 2005). Consequently, understanding teachers' perceptions of giftedness in Lebanon is of paramount importance.

Perceptions determine the actions people take when they make decisions (Weiner, 1985). In addition, the leadership roles of principals comprise the key factor in school success and reform (Smylie, Wenzel, & Fendt, 2003). As such, the school principals' perceptions and attitudes, as instructional leaders and decision makers, influence the actualization of learning goals in school settings. Principals' recognition of gifted students' exceptional educational needs impacts the effectiveness of meeting them. Their perceptions of a program as a key factor to student success will determine their support of it. Martinko (1995) found that principals' perceptions of new programs, in terms of their impact on student achievement constitute an essential factor in their decision to implement them.

As principals are responsible for the academic success of all learners in their respective schools, it is imperative to examine their perceptions of giftedness and gifted program provisions. Various theories of giftedness have emerged with the advances in research, with each having a different perspective on what constitutes giftedness. As such, several giftedness programs and models were developed, with each having a different focus. For example, The DISCOVER model is an "integrated system for assessing and developing children's creative problem solving abilities in multiple

domains" (Renzulli, 2009, p. 253). Another model, the Purdue Three Stage Model aims to develop gifted students' basic thinking, intellectual and creative abilities and self-concepts and to promote independent and effective learners through three consecutive stages (Unlu, 2008). On the other hand, problem- and project-based learning are two forms of inquiry-based learning that emphasize student independence and provide authentic applications of content and skills (Gallagher & Gallagher, 2013; Wang, Huang, & Hwang, 2015). Furthermore, the triarchic enrichment program is a pull-out program influenced by Sternberg's Triarchic Theory of Intelligence which aims to promote analytical, creative and practical intelligences of gifted students (Gubbels, Segers, & Verhoeven, 2014).

Models and programs designed specifically for gifted learners were found to be effective in nurturing the ability and promoting the academic achievement of these students. For example, the effectiveness of problem- and project-based learning lies in enhancing the content knowledge and problem-solving skills of gifted students in specific subjects (Gallagher & Gallagher, 2013; Wang, et al., 2015). On the other hand, the DISCOVER and the Purdue Three Stage models as well as the triarchic enrichment program address the diverse abilities of gifted students regardless of the subjects being taught (Gubbels, Segers & Verhoeven, 2014; Sarouphim, 2009).

Therefore, implementing programs for gifted students is essential for the growth and development of these students. However, comprehensive and grounded gifted programs are nonexistent in Lebanon, due to the "lack of understanding of the construct of giftedness" (Sarouphim, 2010). Establishing programs for gifted students is an outcome behavior, which stems from a decision-making process, contingent upon perceptions, conceptions or attitudes (Ajzen and Flood, 2009; Ajzen 2012). Hence, this

study examined Lebanese educators' perceptions of giftedness and gifted programs, in an attempt to shed light on whether their conception of giftedness might pave the way for establishing gifted programs across the country.

Significance

This study is expected to have theoretical and practical implications. In terms of theory, it will provide descriptive insights into perceptions of giftedness, and as such will set a base for designing professional development frameworks to enhance the understanding of giftedness among educators. This study extends the extant literature that explores educators' perceptions of giftedness and gifted education. First, there is limited research regarding the role of principals in gifted education. The literature does not cover how the perceptions and attitudes of principals lead to the successful implementation of adequate programs for gifted students (Bingham & Gottfried, 2003). Thus, this study explores the Lebanese principals' perceptions of giftedness and will expand the literature on this topic. Secondly, the literature on giftedness has widely focused on the western contexts; this study focuses on the Lebanese context. In Lebanon, research is scarce on all aspects related to giftedness (Sarouphim, 2009). In particular, research on teachers' and principals' perceptions of giftedness and gifted programs is non-existent in the Lebanese setting. Therefore, the current study adds significantly to the literature by shedding light on an important topic not much investigated by Lebanese researchers. Consequently, from a practical perspective, this study will provide information necessary to implement future gifted programs in the country. The findings of this study might lead to a change in the status quo of gifted education in Lebanon.

1.4 Operational Definition of the terms

*Gifted***:** "Gifted and Talented children are those identified by professional, qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society" (Marland Report, 1972, p. 82).

Gifted Program is a special program, activity or provision, specifically tailored for students identified as gifted.

Principal: a person who is currently serving in a position at a school as principal, associate principal, vice principal, or assistant principal.

Teacher: a person whose occupation is to instruct in schools.

Perception is "a mental image based on observations of actual behavior data or upon preconceived data gathered from prior knowledge or experience" (Merriam-Webster Online, n.d.).

1.6 Conclusion

The neglect of giftedness and the absence of gifted programs in Lebanon steer this study's inquiry of examining Lebanese educator's perceptions of giftedness. Subsequently, this research investigates the teachers' and principals' perceptions of giftedness and gifted programs in Lebanese private schools at the elementary level. Teachers' and principals' perceptions play a central role in promoting the implementation of gifted programs. Moreover, private schools have the ability and freedom to make decisions regarding the implementation. The significance of this study lies in its extension of the literature to the Lebanese context and in its practical

implications. As such, the findings of this study are expected to have a positive impact on educational institutions in Lebanon.

Chapter Two

Literature Review

"In human affairs the logical future, determined by past and present conditions, is less important than the willed future, which is largely brought about by deliberate choices" -- René Dubos (quoted by VanTassel-Baska in Comprehensive Curriculum for Gifted Learners, 1988, p. 1)

This section provides a review of the literature relevant to this study. It includes the following subsections: (1) Conceptions of giftedness, (2) Gifted programs, (3) Teachers' and principals' perceptions of giftedness and gifted programs, (4) Predictors of perceptions and attitudes toward giftedness and (5) Gifted education in Lebanon.

2.1 Conceptions of Giftedness

According to Colangelo and Davis (2003), giftedness is a controversial concept. The existence of 32 different definitions of giftedness have challenged theorists and researchers (Coleman & Cross, 2005; Galbraith & Delisle, 1996; Subotnik, Olszewski-Kubilius, & Worrell, 2011; Sutherland, 2006). These definitions have emerged based on different perspectives. This section reviews the different perspectives that have been developed throughout the evolution of the concept.

One of the issues addressed in the conceptions of giftedness is whether giftedness is innate (nature) or affected by the environment (nurture). Research exists that supports both perspectives. With regards to the biological approach, the argument is

that giftedness is innate and related to genetic factors (Clark, 2008, 2013; Posthuma, DeGeus, & Boomsma, 2001; Porter, 2005; Thompson, Cannon, & Toga, 2002). On the other hand, some studies have challenged this perspective, with the argument that innate intelligence is only the starting point. This perspective views nurture as a necessary addition to innate intelligence, highlighting the importance of family, school, community, and other environmental and personality factors in developing giftedness (Gagné, 2003, 2004b; Renzulli, 2003; Tannenbaum, 1983). Scholars have argued that nurture and the social context are vital in enabling the maturity of giftedness; they linked potential fulfilment with general and special ability, personality, opportunity and chance (Colangelo & Davis, 2003). Clark (2008) endorsed this view and stipulated that giftedness develops in a specific context and culture where suitable interaction takes place between the person and the environment.

In the past, giftedness was thought to be related to high IQ scores, as IQ tests were the major tool used for identification purposes (Brown, Renzulli, Gubbins, Siegle, Zang, & Chen, 2005; Davis & Rimm, 2004; Matthews, 2004). However, this view has been challenged, as IQ tests measure abilities linked mostly to school achievement, thus limiting the scope of giftedness to academic domains only. Consequently, various other definitions have emerged with a wider perception of the concept of giftedness. Some scholars have highlighted the importance of moving beyond intellectual and academic ability in identifying giftedness (Bonner, Lewis, Bowman-Perrott, & Hill-Jackson, 2009). Therefore, other domains of giftedness, such as creativity, leadership ability, artistic ability, and visual arts have been incorporated into the concept (Davis & Rimm, 2004; Clark, 2008).

Kaufman and Sternberg (2008) delineate four waves, as distinct periodic frames, queued in the evolution of 'giftedness' as a concept. The first wave casted the domain-general perspective, accompanied with its models. The second, third and fourth waves delivered domain-specific, systems and developmental models respectively. Domain-general models consider higher ability and general intelligence, revealed by IQ tests, as the gist of giftedness. Domain-specific models incorporate other forms of intelligence (e.g. linguistic, logical-mathematical, spatial, musical), in addition to the general form. Systems models systemize the giftedness concept into a set of interrelated psychological processes, with multiple intelligence forms as inputs and psychological variables, such as creativity. Developmental models further expand the scope of systems models and include external factors, such as environmental influences and training programs, in the concept of giftedness (Kaufman & Sternberg, 2008).

2.1.1 Domain General Models

Domain-general models are based on the 'nature', as opposed to the 'nurture', perspective, by which giftedness is viewed as a factor of genetic heredity that indicates ability (Kaufman & Sternberg, 2008; Porter, 2005; Thompson, Cannon, & Toga, 2002). This view equates giftedness to general intelligence (e.g.. Gallagher & Courtright, 1986). Although its inception in the late 1800's with Francis Galton's book, *Hereditary Genius* (1869), this view of giftedness is still prevalent today and is embedded in many identification procedures based on IQ scores (Kauffman & Sternberg, 2008). Artifacts of the 'giftedness as a biological factor' view include Binet and Simon's (1916) scale and the Stanford-Binet Intelligence Scale (Terman, 1916). These scales comprise IQ tests and higher ability task tests.

2.1.2 Domain Specific Models

Domain-specific conceptions of giftedness widen the view of intelligence. These models consider more specific forms of intelligence in addition to the general one. The most prominent and influential domain-specific model is Carroll's (1993) three stratum theory (Kauffman & Sternberg, 2008). Carroll's theory comprises three strata that convey general intelligence, specialized abilities and specialized skills respectively. Specialized abilities comprise fluid intelligence, crystallized intelligence, general memory and learning, broad visual perception, broad auditory perception, broad retrieval ability, broad cognitive speediness, and processing speed (Kauffman & Sternberg, 2008). Caroll (1993) has adopted fluid and crystallized intelligence from Horn and Cattell (1966). Fluid intelligence is viewed as a function of the central nervous system, and crystallized intelligence is viewed as a function of experience and culture. Caroll's formulation of specialized skills extend Thurstone's (1938) set of mental abilities: verbal comprehension, verbal fluency, number, perceptual speed, inductive reasoning, spatial visualization, and memory. Parallel to models that describe hierarchical strata of intelligence, the Multiple Intelligences model of intellectual ability, devised by Gardner (1983, 1993, 1999) has illuminated researchers' and educators' understandings of giftedness (McFarlane, 2011). Gardner's proposed intelligences include (Checkley, 1997): (1) linguistic (i.e., the ability to use the structures of language well and creatively to express oneself), (2) logical-mathematical (i.e., the capacity to use good reasoning and understand numeric relationships), (3) spatial (i.e., the ability to perceive the visual-spatial world and interpret information in two or three dimensions), (4) musical (i.e., the aptitude for pattern and rhythms), (5) bodily-kinesthetic (i.e.. the capacity to use motor skills and physical co-ordination), (6) interpersonal (i.e.. the ability to deal with varied

social situations and understandings of others), (7) intrapersonal (i.e., the use of knowledge and awareness of one's own strengths, weaknesses and needs to inform behavior) , and (8) naturalist (i.e., the ability to discriminate among living things, such as plant and animals, and features of the natural world, such as clouds and rock configurations). Gardner's proposed eight multiple intelligences operate independently (Gardner, 1983). In addition, Gardner (1983) suggested that the activation of multiple intelligences is contingent upon individuals' culture (e.g., values, families, school teachers) and personal experiences (e.g., opportunities and personal decisions).

Teachers' employment of the multiple intelligences paradigm in pedagogy have enabled gifted students' identification, finer instruction and assessment (Fasko, 2001). The pedagogical adoption of the multiple intelligence model (1) has enhanced educators' views of student abilities and differentiated curriculums and (2) has provided an alternative approach in identifying culturally diverse groups of gifted students (Sarouphim, 1999). Additionally, the multiple intelligence model has added to the awareness gifted students' needs, with uneven or asynchronous development across different abilities.

2.1.3 Systems Models

Systems models extend domain-specific models by incorporating psychological processes into giftedness conceptual representations (Brody & Stanley, 2005). They elicit giftedness as a system, by which an operation of interrelated psychological processes is maintained (Kauffman & Sternberg, 2008). A prototype of systems models is Renzulli's (1978, 2005) prominent Three Ring Definition. Renzulli's model depicts an interrelation among three characteristics: well-above-average ability, creativity, and task

commitment. Well-above-average ability refers to either general ability, applicable across various domains and/or specific ability, comprising high performance in a specific domain. According to Renzulli (2002), above-average-general ability refers to being in the top level of performance in numerical and verbal reasoning, word fluency, memory, and spatial connections. This can be expressed in different domains, such as mathematics, science, languages, religion and arts. Creativity is determined by one's ability to create innovative thinking, contradictory thinking and creative accomplishments; task commitment is related to an individual's motivation and demonstrated by hard work and confidence (Renzulli, 2002). Renzulli (1978, 2005) defined individuals with well-above-average ability as those in the top 15^{th}-20^{th} percentile in a domain, as opposed to Marland's (1972) top 3^{rd}-5^{th} percentile scorers in a standardized measure of intelligence (Kauffman & Sternberg, 2008). As such, Renzulli's (2003) conception of giftedness extends beyond IQ tests to include not only high academic performance, but also creativity and perseverance. The three ring model also takes cultural context into account. Renzulli's theory enhances identification procedures and programming. It calls schools to delineate idiosyncratic apprehensions of giftedness, reflecting their respective communities' attributes.

Analogous to the Three Ring Model, the WICS model (Sternberg, 2003, 2005) is another prototype of systems models. The main tenets of the WICS model postulate that gifted individuals have (1) creativity to produce original ideas, (2) analytical abilities (i.e., academic intelligence) to evaluate these ideas with respect to their quality, (3) practical skills (i.e., practical intelligence) to transition ideas to valuable executions, and (4) wisdom to translate executed ideas to the common good.

2.1.4 Developmental Models

Developmental models widen the scope of systems models to incorporate external factors in the giftedness concept (Kauffman & Sternberg, 2008). Mönks (1992) extended Renzulli's Three Ring Model to the Multifactor model of giftedness that includes environmental factors, such as the school, family, and peers. Another prominent and widely-known developmental model is Gagne's (2005) Differentiated Model of Gifted and Talented (DMGT). The DMGT postulates that giftedness develops into talent through (1) environmental factors (e.g., home, school, parents, activities, encounters), (2) non-intellective variables (e.g., motivation and temperament), and (3) learning (i.e., training and practicing transform gifts into talents (e.g., language, science, mathematics, art, music, leadership). Gagné (2004a) differentiates between untrained exceptional natural abilities (i.e., gifts) and superior mastery of advanced skills (i.e., talents). The exhibitions of giftedness as talent is moderated by intrapersonal catalysts (e.g., personality, temperament, motivation), environmental variables (e.g., milieu or surrounding, people, events) and chance (Gagné, 2003). The DMGT conceives aptitude domains, such as the creative, socio-affective and the sensorimotor, as part of the 'giftedness' construct.

2.2 Gifted Programs

According to the National Association of Gifted Children (NAGC, 2009), gifted students need special education, enrichment and/or accelerated programs to challenge them and motivate them for continuous progress in school. Accordingly, provisions for gifted students consist of either an enrichment-based program or a holistic academic program (Rawlins, 2004). Extant research on the impact of special education gifted

programs and enrichment/accelerated programs shows their advantages, educational value and societal significance (Rawlins, 2004). Reis (2007) posits, "We will not produce future scientists, artists, mathematicians or authors, by having them spend large amounts of their time in school doing work that is too easy for them" . Reis' (2007) statement accentuates the importance of gifted programs for nurturing the abilities of gifted students. Additionally, a more important attribute is the gifted program-student fit (i.e., the 'right' gifted program for the 'right' student). Indeed, Gavin, Casa, Adelson, Carroll, Sheffield, and Spinelli (2007) argued that gifted students may cover all the content of a gifted program without reaching their full potential. Sternberg and Kaufman (2008) warned that gifted students who are not accelerated to the exact level of their capabilities may become underachievers or drop out from the program.

Gifted programs aim at optimizing the abilities of gifted students and stimulating their creativity. Several programs for gifted learners have been developed with proven effectiveness. For example, Joseph Renzulli's Triad Model and his Schoolwide Enrichment Model were both designed to aid with the curriculum of high functioning gifted students. Renzulli's Enrichment Triad Model is one of the first enrichment programs (Reis & Renzulli, 1985). This model is often used in schools as a gifted program although it was developed for all exceptionally bright students (Reis & Renzulli, 1985). Moreover, the Schoolwide Enrichment Model (SEM) that followed has been also widely used in schools. SEM was initially designed as a model for gifted students. It focuses on three main goals: (a) to develop talents in all children, (b) to provide a broad range of advanced-level enrichment experiences for all students, and (c) to provide advanced follow-up opportunities for young people based on their strengths and interests. Another popular program for gifted students is the Purdue Three-Stage

Model developed by Feldhusen and Kollof (1988). The program aims to nurture the abilities of gifted students through a fast-paced, complex instruction implemented in a stimulating educational environment. Research on the model has showed its effectiveness. In one study, Moon, Feldhusen and Dillon (1994) concluded that the model has a long-term positive impact on the cognitive, affective, and social development of most participating students.

Research on other models for gifted students has showed their effectiveness as well. For example, Maker, Muammar, Serino, Kuang, Mohamed, and Sak (2006) demonstrated the effectiveness of the DISCOVER Curriculum Model in the development of creativity in elementary students. Another study conducted by Gubbels, Segers, and Verhoeven (2014) on the triarchic enrichment program has revealed that participation in the program promotes the cognitive, socioemotional and attitudinal development of gifted children. This enrichment program enhanced gifted children's practical intelligence abilities and self-concept and maintained their motivation and enjoyment of science. In addition, studies on the effectiveness of problem-based learning and project-based learning revealed similar results. Gallagher and Gallagher (2013) posited that problem based learning can be an effective strategy to uncover the potentials of gifted students. Also, their findings show that standardized tests limit students with advanced academic potential to the level of general education students, while problem based learning fosters their high-order thinking levels and drives them towards the zone of the gifted. In the same token, Robinson, Dailey, Hughes, and Cotabish, (2014) suggested that problem based learning can be an effective strategy to enhance the scientific content knowledge and skills of gifted students. A study on the effectiveness of project based learning with gifted students revealed that project-based learning can be

an effective strategy to enhance the problem-solving skills of gifted students in computer programming (Wang et al, 2015).

In sum, programs for gifted students are essential for the development of these students' abilities to their full potential. Such comprehensive programs do not exist in Lebanon, hence the importance of this study in shedding light on the perceptions of teachers and principals of gifted programs, as these individuals are instrumental in establishing such programs in Lebanese schools.

2.3 Teachers' and Principals' Perceptions of Giftedness and Gifted Programs

Meriam Webster Dictionary defines perception as an "awareness or understanding of" (Merriam-Webster Online). Perceptions influence actions and contribute to decision-making processes (Weiner, 1985). In this study, the perceptions of teachers and principals are explored. The effectiveness of the principal in meeting the needs of gifted students depends on how he/she perceives giftedness and gifted education. As the instructional leader perceives a certain program to be a key component of student success, he/she will more likely support this program and make decisions accordingly (Martinko, 1995). Similarly, teachers' perceptions of giftedness affect their behavior and the instructional methods they choose to adopt in the classroom.

Previous studies have revealed that the needs of gifted students in many countries are not being appropriately met as a result of teachers' perceptions and/or lack of understanding of the concept of giftedness (Al Qarni, 2010; Curtis, 2005; Morgan, Ludlow, Kitching, O'Leary, & Clarke, 2010; Ryan & Cooper, 2013; Taylor & Milton, 2006, 2013). Furthermore, several studies have shown a correlation between teachers'

negative attitudes and their lack of knowledge of gifted students (Carman, 2011; Curtis, 2005).

Since educators' perceptions impact their practices and are central to the success of any new educational policy (Colangelo & Davis, 2003; Hawkins, 2009; Rae & Mckenzie, 2010; Ryan & Cooper, 2013), many studies have explored their perceptions of giftedness and gifted programs. For example, a study by Smith and Chan (1996) revealed that educators strongly supported special gifted programs and endorsed the need for required professional development in gifted education. Also, experienced educators communicated positive approaches to gifted programs. For instance, Chipego (2004) examined elementary educators' attitudes towards gifted education. His findings revealed that educators generally held positive attitudes towards gifted students and supported gifted programs. On the other hand, a study by Plunkett (2000a) emphasized that while most educators agreed that special gifted programs are needed for gifted students, few others believed that these programs fail to meet the needs of these students in the regular classroom. In a follow up study, Kronborg and Plunkett (2012) explored educator perceptions of gifted education and found that the participant educators were aware of the students' need for a supportive environment and admitted that this could be achieved through gifted programs.

Some studies revealed that the favored educational strategies of teachers of the gifted were through enrichment programs in class and that acceleration approaches were least preferred. Smith and Chan (1996) investigated teachers' perceptions of special gifted programs and concluded that teachers strongly believed that gifted students should be placed in special programs.

On the other hand, in some studies, the results showed that teachers were not in favor of having special programs for gifted learners because they believed that the high intelligence of these students will lead them to succeed in the regular classroom, thus no need exists for gifted programs or additional efforts on the part of their teachers (Colangelo & Davis, 2003; Davis & Rimm, 2004). There is a common misconception that gifted students will "get it" on their own without any need for special services (Cooper, 2009; Moon, 2009; Peterson, 2009). Yet, research has revealed that gifted students should receive a tailored and differentiated educational instruction to serve their needs (Colengelo & Davis, 2003; Clark, 2008; Maker & Shiever, 2010; Mathews & Kitchen, 2007). There is also evidence that gifted students need teachers who can identify their potential and support them accordingly, otherwise, they might not succeed on their own (Clark, 2008; DeLacy, as cited in Mendoza, 2006; Winebrenner 2000; 2009).

There are other common misconceptions that teachers hold and that may explain their resistance to having special programs for gifted students. For example, Fiedler, Lange and Winebrenner (2002) highlighted that some teachers believe in keeping gifted students in the regular classroom to facilitate the learning of average and below average students. In this sense, gifted students assist the average students to gain better understanding of the concepts taught. This belief has a negative influence on teachers' support for the needs of gifted students and their special educational programs (Begin & Gagné 1994b; Brulles, Saunders, & Cohn, 2010; Jacobs & Harvey, 2010).

The revised Lebanese curriculum established in 1995 focuses on catering to students with learning disabilities and ignores the needs of gifted students (Sarouphim, 2009). This appears to be a universally shared priority (Braggett & Moltzen, 2000;

Gallagher, 2003; Gross, 2004). Therefore, understanding Lebanese principals' and teachers' perceptions of giftedness and gifted programs will shed light on their position towards giftedness and may possibly lead to a change in the current practice adopted in Lebanese schools concerning the education of gifted students.

2.4 Predictors of Perceptions and Attitudes towards Giftedness

Extant research has studied the predictors of attitudes toward or perceptions of 'giftedness' via different instrumentations. Most studies have adopted their scales from Begin and Gagne (1994a, 1994b) and Gagne and Nadeau (1985). These studies examine predictor variables such as: needs and support, resistance to objections, ability grouping, acceleration and social values. On the other hand, other studies have examined the effect of training, teaching experience and professional development on 'giftedness' perceptions.

Wiener and O'Shea (1963) stipulated that both the educational level of teachers and their training in gifted education are potential predictor variables of perceptions toward giftedness and gifted programs. Similarly, Geake and Gross (2008) argued that professional development programs that focus on the characteristics and tendencies of gifted children reduce the negative attitudes teachers have toward gifted students. In the same token, Isaacs (1992) found that teachers and principals who had completed training sessions in gifted education were more favorable toward gifted education than their colleagues who had not received any training. Additionally, Isaacs (1992) found that teachers and principals with more than 10 years of experience in the field of education were more likely to support special programs for gifted students than were teachers and principals with fewer than 10 years of experience.

McCoach and Siegle (2007) performed a factor analysis on Gagne and Nadeau's (1985) scale to identify the most significant predictors of attitudes toward giftedness. As such, they isolated the following predictors: support, elitism, acceleration and self-perception. 'Support' refers to the "respondent's belief in the needs of gifted children and his or her support for special services for the gifted." In other words, it represents the educator's support for providing gifted programs. 'Elitism' refers to the objections to giftedness programs, based on the notion that the potentially identified students as gifted would have a favored status in schools and society. 'Acceleration' refers to educators' negative perception toward grade skipping. 'Self-perception' refers to the educator's interpretation of his or her own level of giftedness. High scores of 'support' indicate a positive attitude towards gifted programs. On the other hand, high scores on 'elitism' and 'acceleration' indicate a negative attitude towards giftedness.

2.5 Gifted Education in Lebanon

According to Sarouphim (2010), education of gifted students is emerging in Lebanon and therefore needs to be established on a solid basis. It is a relatively new construct for Lebanese educators because the country still lacks a formal system for educating gifted students. However, some enrichment activities for high achievers are available in a few private schools in the capital city (Sarouphim, 2009; 2015). Although many high achievers are identified as gifted students, not all high achievers are gifted (Whitmore, 1980). In the same token, not all gifted students are high achievers (Gagné, 2003, 2004a; Kingore 2003). Sarouphim (2009) argued that the concept of giftedness in Lebanon is limited to high academic performance. This is problematic because giftedness might not be apparent in high academic achievement. Further, gifted students

may actually underachieve under certain circumstances, such as negative attitudes towards school and lack of motivation (McCoach & Siegle, 2007). As the definition of giftedness should be based on the best available research about the characteristics of gifted individuals (Renzulli, 1998), a clear conception of giftedness needs to be developed before gifted programs could be established in Lebanon.

Chapter Three

Methodology

This chapter presents the detailed methodology implemented to explore teachers' and principals' perceptions of giftedness and gifted education. A description of the research design is presented first, followed by the sampling method, description of the instruments, data analysis, and the validity and reliability of measures of the study.

3.1 Design of the Study

This study followed a mixed method approach via administering two distinct field studies. The purpose of a field study is to collect data in natural environments, as opposed to labs and experimental settings. The mixed method approach comprised the use of: (1) a survey to gather quantitative data and (2) an interview to gather qualitative data. A survey method is "a specific type of field study that involves the collection of data from a sample of elements (e.g., adult women) drawn from a well-defined population (e.g., all adult women living in the United States) through the use of a questionnaire" (Visser, Krosnick, & Lavrakas, 2000, p.231). An interview method is a method for collecting qualitative data from respondents through structured or semi-structured interviews.

A questionnaire, consisting of two sections, was developed based on the literature (see Appendix A). The first section was developed specifically for this study. It comprised items that were drawn from the various conceptions of giftedness, time-framed in the four distinct waves, previously discussed in the Literature Review. The items in this section examined teachers' understanding/perception of giftedness and their views of the characteristics of gifted students. The second section was adopted from a previously validated and widely used questionnaire (Gagné & Nadeau, 1985; McCoach & Sielge, 2007) to investigate teachers' perceptions of gifted programs provisions.

The interview included seven interview questions that addressed school principals' views on the concept of giftedness and gifted programs (see Appendix B).

3.2 Participants and Sampling Method

A convenience and purposive sampling procedure was used to recruit participants. Convenience sampling is one type of purposeful sampling, in which the sample is selected based on convenient and easy accessibility (Merriam, 2009). Eleven private schools, located in Beirut, Mount Lebanon, and Koura were selected for this field study based on their accessibility. The sample included 128 teachers and nine principals. Some of the data was collected from teachers at schools where principals did not take part in the study. Purposive sampling was used to select participants from the 11 schools that consented to take part in this study.

3.3 Instruments

According to Baxter and Jack (2008), using more than one source of data collection improves the credibility of the study. Credibility "deals with the question of

how research findings match reality" (Merriam, 2009, p.213). The first data collection instrument employed in this study was a questionnaire; the second was an interview.

The first instrument used in this study was a questionnaire that consisted of two sections (see Appendix A). The first section (Section 1) was developed based on the four waves of 'conceptions of giftedness': domain general models, domain specific models, systems models and developmental models. It included eighteen items that reflect the aggregate attributes of the four waves. As such, this study refers to this aggregation as the 'grand wave'. The 'grand wave' comprises all attributes of the four waves' conceptions of giftedness. Table 1 illustrates the 'grand wave.' The first section in the questionnaire (Section 1) includes one item for each attribute listed in Table 1.

Table 1. *Attributes of the 'Grand Wave'*

Attributes of the 'Grand Wave'	
Attribute	***Wave***
High IQ	Domain General Models
High ability in performing tasks	
Top 3-5 percentile score in a standardized test	
High linguistic ability	Domain Specific Models
High logical-mathematical ability	
High spatial ability	
High musical ability	
High bodily-kinesthetic ability	
High interpersonal ability	
High intrapersonal ability	
High naturalist ability	
Above average ability in different domains	Systems Models
Above average ability in different domains	
Above average ability in a specific domain	
High creativity	
High task commitment	
Top 15-20% in a specific domain	
Environmental factors that help in developing giftedness	Developmental Models
Intrapersonal catalysts (e.g. motivation, temperament)	
Training and practicing	

The second section (Section 2) was adopted from McCoach and Siegle (2007). As such, this section included four subscales that investigate teachers' perceptions in the following areas: (1) support, (2) elitism, (3) acceleration and (4) self-perception. The 'support' subscale consisted of five items (e.g., "our school should offer special education services for the gifted"). The 'elitism' subscale included six items (e.g., "special programs for the gifted children have the drawback of creating elitism"). The 'acceleration' subscale consisted of four items (e.g., "most gifted children who skip a grade have difficulties in their social adjustment to a group of older students"). Finally, the "self-perceptions" subscale included five items (e.g. "people consider me gifted"). The questionnaire also included other predictors of attitudes toward giftedness, such as years of experience, educational level, and trainings as these were found to be significant variables that affect positively teachers' perceptions of giftedness. In addition, demographics, such as age and gender of the participants were investigated as well.

The first section of the questionnaire and the four subscales in the second section used a Likert-type technique which determined the direction of teachers' perceptions towards giftedness and gifted programs. Specifically, items were measured on a 1-5 scale (i.e., 'strongly disagree', 'somewhat disagree', 'neutral', 'somewhat agree', 'somewhat disagree'). Likert scale is widely used in instruments measuring opinions, beliefs, and perceptions (DeVellis, 2003). Age, years of experience, gender, educational level, and training programs exposure were measured by categorical, classification and dichotomous scales (Appendix A). The questionnaire was developed using the website Qualtrics. The duration to complete each questionnaire was about 15- 20 minutes.

The second instrument was a semi-structured interview. It consisted of seven questions on the following areas: perception of giftedness and gifted students, school provisions of gifted programs, and perceptions of gifted programs. The questions were developed after an intensive review of the literature and exploring similar studies. For example, to explore principals' perceptions of giftedness, participants were asked, "What are your views on giftedness? In other words, what do you think giftedness is?" The duration of each interview was about 20- 30 minutes. Interviews were carried out to obtain an in-depth and comprehensive view of the principals' perceptions of giftedness and gifted programs.

3.4 Validity and Reliability

According to Merriam (2009), "validity and reliability are concerns that can be approached through careful attention to a study's conceptualization and the way in which the data are collected, analyzed, and interpreted, and the way in which the findings are presented." (p. 210) In other words, validity and reliability concern all aspects of data collection and analysis methods.

Research on the survey used in this study showed that the instrument is valid and reliable (McCoach & Siegle 2007). To ensure its validity in Lebanon, the instrument was piloted on seven teachers who match the characteristics of teachers in the sample. Also, interview questions were checked by an expert on giftedness to assess their content validity.

3.5 Procedure

After the researcher received an approval letter from the Lebanese American University (LAU) Institutional Review Board (IRB; see Appendix C), the first step

towards data collection was inviting school principals to participate in the study via email (Appendix D). The email was sent to 50 private school principals. It requested their permission to conduct the research and briefly explained the aim of the study. Moreover, principals were asked to identify a list of volunteer teachers (in their schools) willing to complete the questionnaire. Also, it described the means of data collection by which school principals were provided with two options to conduct the interview questions based on their preference: 1) provide written answers for the interview questions and 2) schedule a Skype call for conducting the interview orally. They were also provided with two options for administering the questionnaire required to be taken by elementary teachers: 1) provide the researcher a list of elementary teacher email addresses to send them the questionnaire link and 2) sending the teachers the link themselves by copying and pasting it on a separate email. The link to the questionnaire was provided at the end of the email sent to the principals. Participants were informed that they have the choice to participate or not to participate in the study without any penalty. They were also told to skip questions they do not wish to answer. In addition, they were assured that they can withdraw from the study at any point they wish. The email included an attachment that comprised: a sample of the questionnaire (Appendix A), interview questions (Appendix B), consent forms (Appendix E and Appendix F), and a permission letter customized for each school (Appendix G). All attached documents were approved and stamped by the IRB prior to communicating them to principals.

Eleven schools accepted to take part in this research. Yet, some of the questionnaire data was collected from teachers in schools where the principal declined to participate. Nine principals sent the hyperlink of the questionnaires via email to the list of elementary teachers in their respective schools. The other two principals provided the

researcher with a list of elementary teachers' email addresses, and as such the link was sent directly to these teachers.

A period of two months was taken for the questionnaire and the interview questions to be completed. 145 responses were recorded on the website Qualtrics, seventeen of which were not analyzed for this study. Specifically, ten questionnaires were recorded with empty data and seven questionnaires were partially recorded. As such, the researcher dropped these 17 responses from the data. This resulted in a total of 128 questionnaires for quantitative data analysis. As for the interview questions, eight principals sent the answers to the researcher via email and two principals responded orally via Skype interviews. One of the written interview responses was discounted as it was sent with blank answers. This resulted in a total of nine interviews for qualitative data analysis.

3.6 Data Analysis

Quantitative data (i.e., teachers' responses to the questionnaire instrument) was entered into Statistical Package for the Social Sciences (SPSS) and analyzed with descriptive statistics. Measures of central tendency, such as the mean, median and mode were examined for each subscale in the questionnaire. Moreover, measures of dispersion such as standard deviation was examined. Demographic proportions and sample distributions were also examined in relation to different subscales. In the data preparation phase, data was screened to determine any irregularities such as missing values. Accordingly, missing values were handled through the single mean imputation method.

As for qualitative data (i.e., principal's answers to the interview questions), the data was analyzed through the content analysis technique. As such, coding categories were derived from the text data. Each set of recurrent themes in answers was coded as one category. Categories were further divided into subcategories. Inductive analysis was employed to identify common themes. This was accomplished through a recursive process of examining the data thoroughly and fitting together particular aspects as more general ideas, or themes (Creswell, 2007).

3.7 Ethical Considerations

This study abided by the standard ethical guidelines of research. Before data collection, a proposal was sent to the Internal Review Board (IRB) for approval. Upon receipt of the approval, participants were contacted for participation in this study (Appendix C). They were briefed about the purpose of the study and their right to withdraw from the study at any time. They were also assured confidentiality and anonymity. All relevant information was included in a corresponding consent form that was sent to all participants (see Appendix E & Appendix F).

Collected data was stored on a password protected and secured personal computer. Only the researcher has access to this data which will be destroyed within one year from the completion of the study.

This chapter presented the methodology in terms of the design of the study, participants and sampling methods, instrumentation, and the validity and reliability of the study. The next chapter presents the quantitative and qualitative results of this study.

Chapter Four

Results

The purpose of this study was to explore teachers' and principals' conceptions of giftedness and gifted programs provisions in Lebanon. Consequently, this study followed a mixed method approach, through which quantitative and qualitative data were gathered by administering a questionnaire survey and a research interview survey respectively. After data cleansing, 128 responses (N=128) from elementary teachers were retained in the questionnaire survey study. As for the interview survey, nine (N=9) responses were retained from principals who responded to the interview questions. This chapter presents the results from each method separately followed by an overview of the overall results. The primary focus of this chapter is to answer the research questions:

1- What are elementary teachers' perceptions of giftedness? (Questionnaire)

2- What are elementary teachers' perceptions of gifted programs? (Questionnaire)

3- What are school principals' perceptions of giftedness? (Interview)

4- What are school principals' perceptions of gifted programs? (Interview)

4.1 Quantitative Results

Quantitative results were extracted from the questionnaire responses (N=128). The first step in the analysis of the questionnaire was to conduct a descriptive statistical analysis using SPSS. Frequencies, mean responses, and standard deviations were computed. Quantitative results are presented in the following subsections: demographic and related variables, conceptions of giftedness, and provisions of gifted programs (the four subscales). An overview of the quantitative results sums up this section.

4.1.1 Demographics and related variables

This subsection presents the demographics and other related data of the 128 elementary teachers that completed the questionnaire. It includes the following demographic variables: 1) gender, 2) age and 3) educational level of the participants. Moreover, the other variables, which were revealed to be significant in positively affecting teachers' perceptions of giftedness (McCoach and Siegle, 2007), include: 4) years of experience and 5) giftedness trainings. Figures 1-5 and Tables 2-6 depict the sample percentage proportions of the above variables.

Gender. Results from the teacher demographic data revealed that of the 128 teachers who responded, 119 (93%) of the sample were females, while 9 (7%) were males. This gender imbalance is aligned with the gender representation within the teaching profession in Lebanon, whereby the majority of elementary teachers (86.4%) are females (Center for Educational Research and Development CERD, 2014). Figure 1 and Table 2 outline the gender percentages of participants and their frequencies.

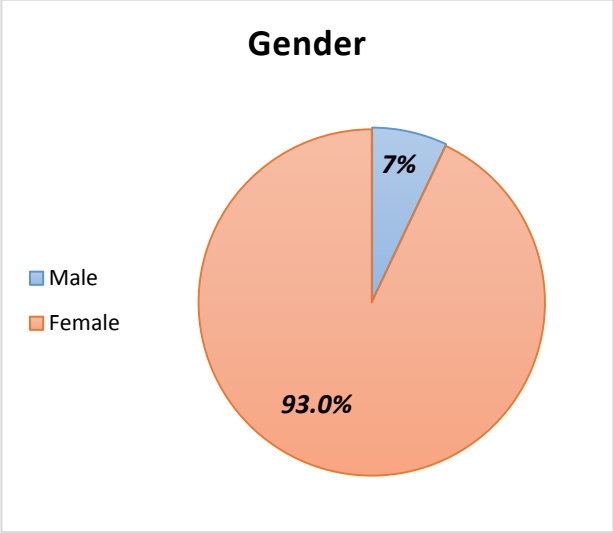

Table 2. *Gender frequencies/ percentages*

Gender	Frequency	Percent
Male	9	7.0%
Female	119	93.0%
Total	128	100.0%

Figure 1. Gender proportion of participant teachers

Age. Data analysis of the participants' age revealed a reasonable response rate distribution across age groups. The highest percentage (i.e. 40.6%) corresponded to

participants below 30 years of age. 36.7% of participants' age was between 31 and 40. Finally, the lowest percentage (i.e. 14.1%) of teachers belonged to the age group of above 40 years. Detailed percentages are outlined in Figure 2 and Table 3 with a range of 9 years in each age group.

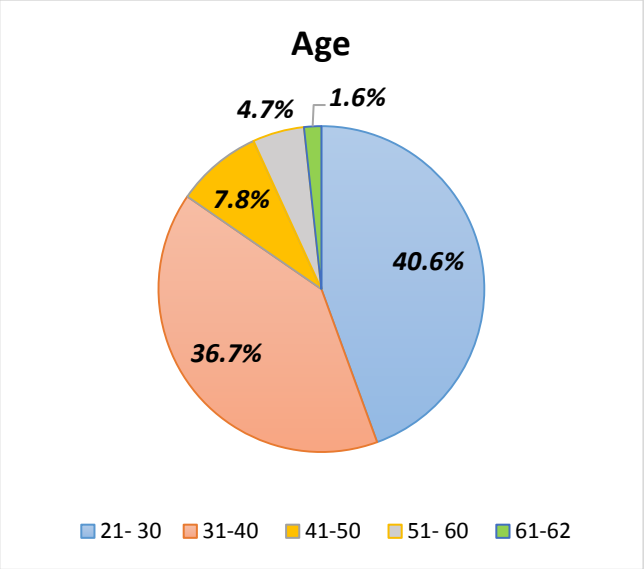

Table 3. *Age frequencies/ percentages*

Age	Frequency	Percent
21- 30	52	40.6%
31-40	47	36.7%
41-50	10	7.8%
51- 60	6	4.7%
61-62	2	1.6%
Total	128	100.0%

Figure 2. Age distribution of participant teachers

Educational Level. The educational level attained by each participating teacher was explored, using the following categorical scale: (1) High School, (2) University Bachelor's Degree, (3) Graduate or Post Graduate and (4) other. Between the four categories of the educational level, the highest percentage (i.e. 52.34%) represented teachers holding a University Bachelor's Degree. 35.94% of teachers held a Graduate or Post-graduate degree and 10.16% described their educational level as other. The lowest percentage (i.e. 1.56%) represented teachers holding a High School Diploma. Figure 3 illustrates the educational level distribution according to each category with the

percentages rounded to the nearest whole number. Table 4 outlines the frequencies of participating teachers and the precise percentages accordingly.

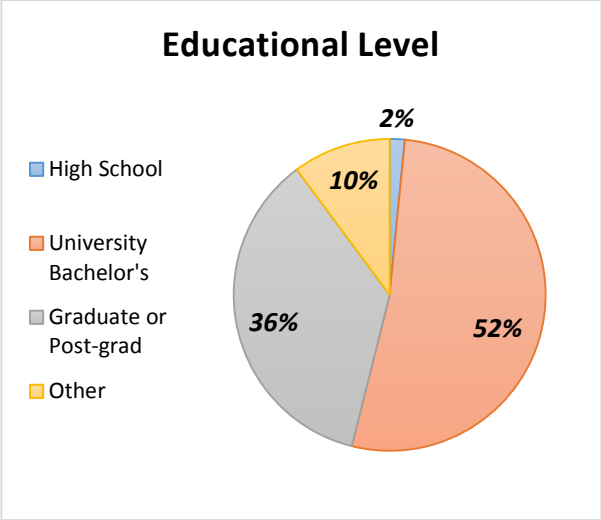

Table 4. *Educational level frequencies/ percentages*

Educational Level	Freq	Percent
High School	2	1.56%
University Bachelor's	67	52.34%
Graduate or Post-grad	46	35.94%
Other	13	10.16%
Total	128	100.00%

Figure 3. Educational Level of participant teachers

Years of Experience. The categorical scale used for the years of experience variable was: 1) 0- 5 years 2) 6-9 years 3) 10-14 years and 4) 15+ years. Overall, the group of teachers who participated in the questionnaire had a reasonable level of teaching experience in terms of years. Slightly over half of the participant teachers (i.e. 57%) had less than 10 years of experience in the field. The percentage of teachers having 10 -14 years of experience (i.e. 21.1%) was almost equivalent to the percentage having more than 15 years of experience (i.e. 21.9%). Figure 4 and Table 5 illustrate the percentages and frequencies of each category.

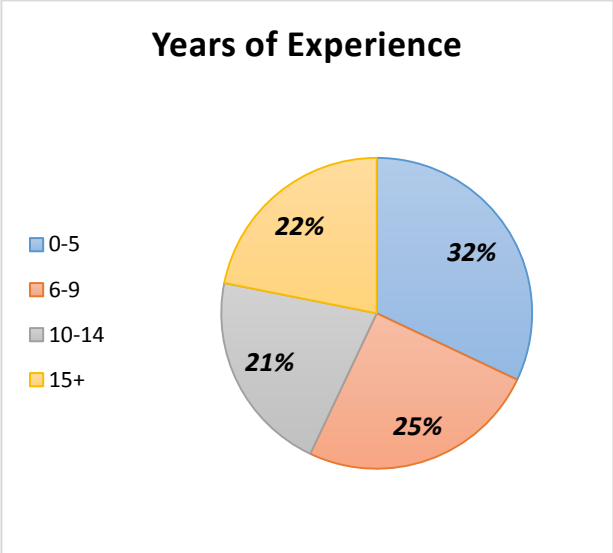

Figure 4. Participants' years of experience percentage distribution

Table 5. *Years of experience frequencies/ percentages*

Years of Experience	Frequency	Percent
0-5	41	32.0%
6-9	32	25.0%
10-14	27	21.1%
15+	28	21.9%
Total	128	100.0%

Giftedness Training. The item scale used for giftedness training variable was dichotomous with a yes or no answer to whether or not the participants were ever exposed to trainings or workshops in gifted education. Results revealed that 35% of participants were exposed to giftedness training. This was relatively a high and unexpected percentage, given the absence of giftedness coverage in teacher education programs (Sarouphim, 2009). It is more likely that there is a misconception among teachers between training programs that focus on differentiation and those that focus on giftedness education. Figure 5 and Table 6 outline the percentages and frequencies of participants who were previously exposed to giftedness training and those who were not.

Table 6. *Giftedness training frequencies/ percentages*

Training	Frequency	Percent
Previously Trained	45	35.2%
Not Trained	83	64.8%
Total	128	100.0%

Figure 5. Percentage of giftedness training

4.1.2 Conceptions of Giftedness

This subsection provides answers to the first research question: "What are elementary teachers' perceptions of giftedness?" These answers were extracted from the responses of the first section of the questionnaire which comprised eighteen items. The items were developed based on the four waves of *conceptions of giftedness* (domain general models, domain specific models, systems models and developmental models). The items utilized a five- point Likert scale for participant responses (1=strongly disagree, 2=somewhat disagree, 3= neutral, 4=somewhat agree, 5=strongly agree). Means, standard deviations, and ratings of the responses for items Q1 to Q18 were calculated and arranged from the highest mean value to the lowest one (see Table 7). For descriptive analysis purposes, and as suggested by Gagne (1991) and implemented by McCoach and Siegle (2007), ratings were classified according to the mean scores as follows: mean scores ranging between 4 and 5 indicated a high positive perception (HP), mean scores in the range of 3.25 to 3.99 were classified as positive (P), mean scores between 2.75 and 3.24 were interpreted as ambivalent (A) and mean scores between 2 to

2.74 were inferred to be negative (N). Mean scores less than 2 designated a high negative perception (HN).

Table 7. *Means, Standard Deviations, and Ratings of Teachers' Perceptions of Giftedness and Gifted Students*

Item Number (Q)	***Item***	***Mean (M)***	***Std. Deviation (SD)***	***Rating***
18	Training and practicing help gifted students in developing their giftedness into tangible talents	4.65	0.68	HP
16	Environmental factors such as family and school help gifted students in developing their giftedness	4.56	0.80	HP
17	Personal characteristics, such as motivation and temperament help gifted students in developing their giftedness	4.49	0.75	HP
12	Gifted students have an above-average ability in a specific domain	4.49	0.91	HP
15	Gifted students rank in the top 15-20% in a specific domain	4.12	0.92	HP
1	Gifted students have a high IQ	3.97	1.03	P
13	Gifted students are highly creative	3.91	0.97	P
2	Gifted students have a high ability in performing tasks	3.90	1.00	P
14	Gifted students are highly motivated to persist working on a task until completion	3.69	1.12	P
10	Gifted students have a high ability to discriminate among living things, such as plant and animals, and features of the natural world, such as clouds and rock configurations	3.66	0.89	P
5	Gifted students have a high ability in using good reasoning and understand numeric relationships	3.65	1.12	P
3	Gifted student score in the top 3-5 percentile on standardized (IQ) tests	3.64	1.03	P
4	Gifted students have a high ability in using language well and creatively for expressing themselves	3.39	1.18	P
7	Gifted students have a high ability in using body-motor skills and physical coordination	3.16	1.00	A

Item Number (Q)	*Item*	*Mean (M)*	*Std. Deviation (SD)*	*Rating*
9	Gifted students are highly aware of their own strengths, weaknesses and needs	3.13	1.11	A
6	Gifted students have high musical ability	3.06	1.08	A
8	Gifted students have a high ability to deal with varied social situations and understandings of others	2.94	1.05	A
11	Gifted students have an above-average ability in all domains	2.70	1.19	N

The results revealed that items related to 'developmental models wave' (i.e. Q18, Q16, Q17) elicited the highest mean scores (i.e. 4.65, 4.56, 4.49 respectively) indicating highly positive ratings. Also, these items had the smallest standard deviations (0.68, 0.80, 0.75) signifying a closer range agreement among participants. The responses to these items indicate that participant teachers highly perceive that the following factors impact giftedness development:

1) Learning such as training and practicing (highest mean)

2) Environmental factors such as family, school, etc.

3) Intrapersonal catalysts such as motivation and temperament

Also, two items related to the 'systems models wave' (Q12, Q15) indicated highly positive ratings (M=4.49 and M=4.12 respectively). This reflected that participant teachers highly perceive that in a specific domain, gifted students have an above-average ability and rank in the top 15-20%. However, the only negatively rated mean score (M=2.70) corresponded to the item which indicated that gifted students have high abilities in all domains. Therefore, participants perceive that gifted students have high abilities in specific domains but not in all domains.

Moreover, each of the three items (Q1, Q2, and Q3) which were associated with ‘domain general models’ revealed positive rating mean scores. This implies that participants perceive giftedness as a biological factor equivalent to general intelligence by which it is identified through high scores in IQ tests and higher ability task tests. Furthermore, five items related to ‘systems models’ and ‘domain specific models’ revealed positive ratings as well. These items indicate that teachers perceive that gifted students are highly creative and have multiple intelligences specifically in the following domains: (1) linguistics, (2) logical- mathematics, (3) spatial world, and (4) naturalistic abilities.

Finally, four items associated with ‘domain specific models’ were rated ambivalent ($2.75 < M < 3.24$). Thus, participants did not have a clear decision whether gifted students are highly able in the following domains: 1) bodily- kinaesthetic (use motor skills and physical coordination), 2) music, 3) interpersonal (dealing with varied social situations), and 4) intrapersonal (understanding their strengths, weaknesses and needs).

Figure 6 illustrates a bar graph of all items of the first section in the questionnaire, arranged from the highest mean score to the lowest one. Items belonging to a specific model are coded with the same color. As such, items related to ‘developmental models’ are color coded as red, items related to ‘systems models’ are color coded as green, items related to ‘domain general models’ are color coded as yellow and items associated with ‘domain specific models’ are color coded as blue.

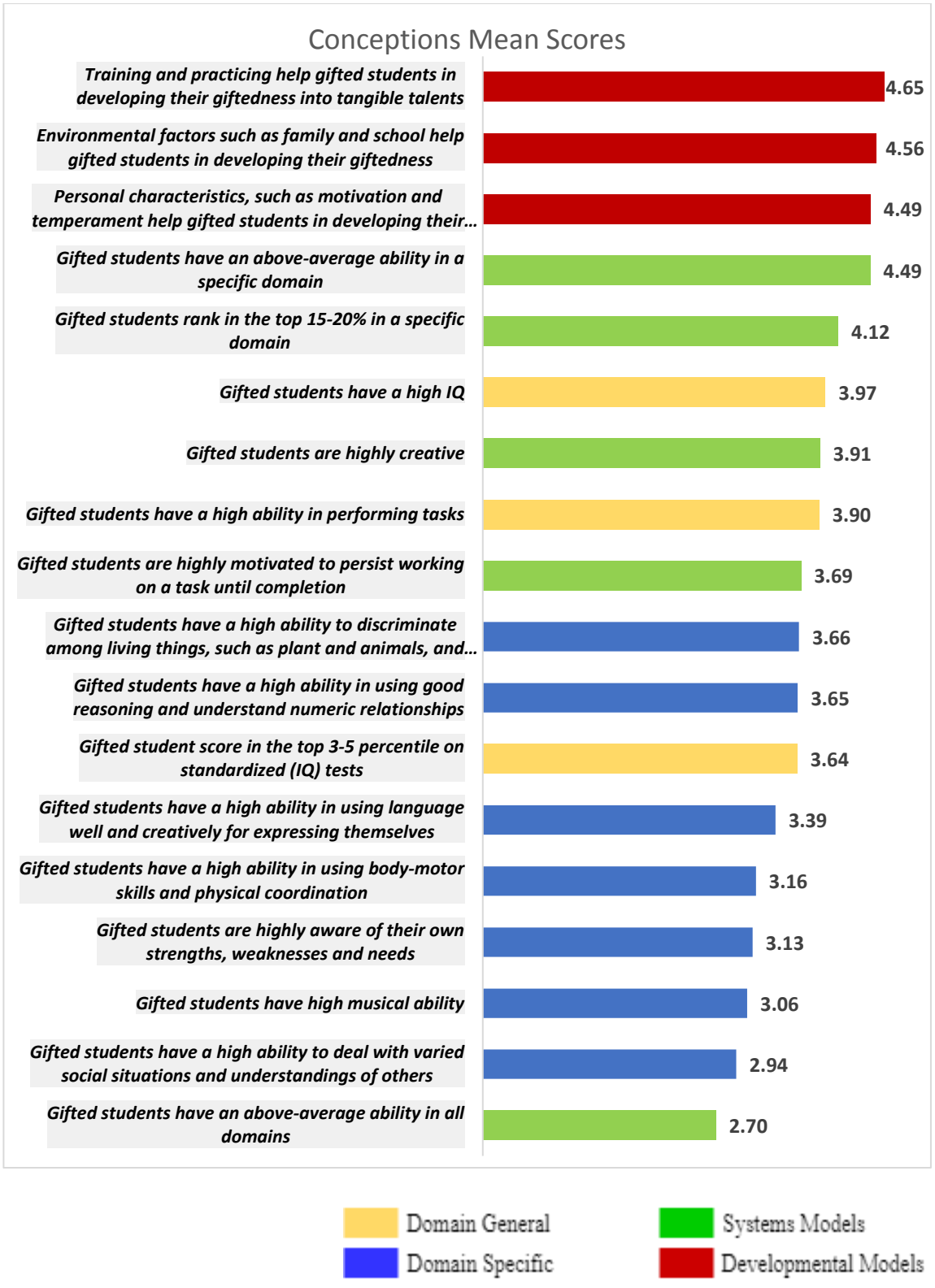

Figure 6. Conceptions of giftedness mean responses

Sample Distribution. Means of the item scores in each of the four conception models were computed. Histograms of the frequency of participants as a function of mean score range are illustrated in the subsections below: domain general models, domain specific models, systems models, and developmental models.

Domain General Models. The histogram (Figure 7) is skewed to the right with 75 participants in the highly positive mean score range ($4 < M < 5$) and 31 participants in the positive mean score range ($3.25 < M < 3.99$). Only four participants scored in the highly negative mean range ($M < 2$).

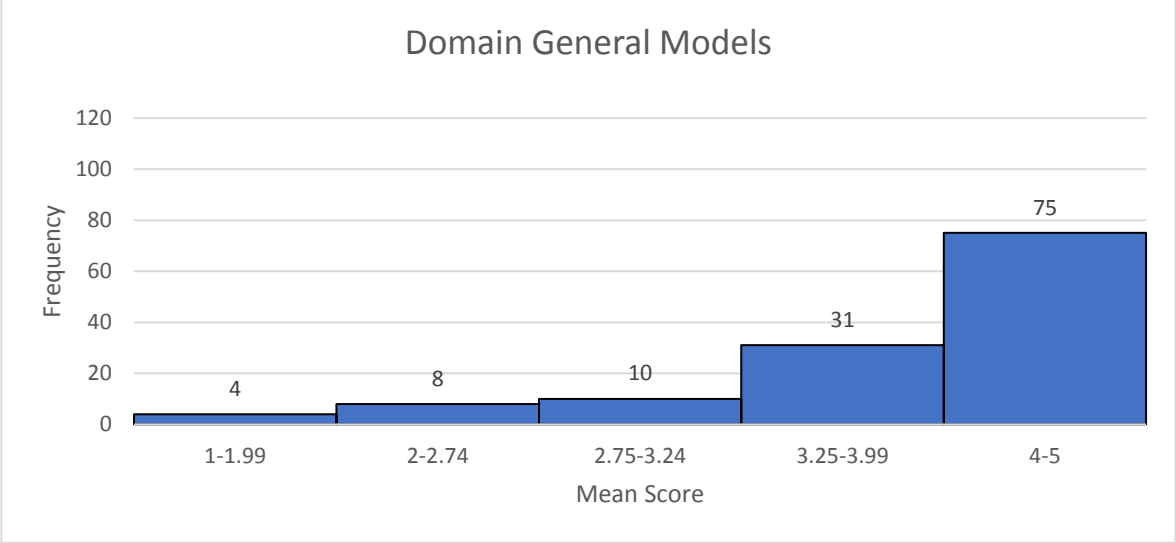

Figure 7. Domain general models mean distribution

Domain Specific Models. The histogram (Figure 8) reveals that the highest number of participants (i.e. 59) fit in the positive mean score range ($3.25 < M < 3.99$). Also, there is an equivalent number of participants (24) who scored in the ambivalent mean score range ($2.75 < M < 3.24$) and the negative mean score range ($2 < M < 2.74$).

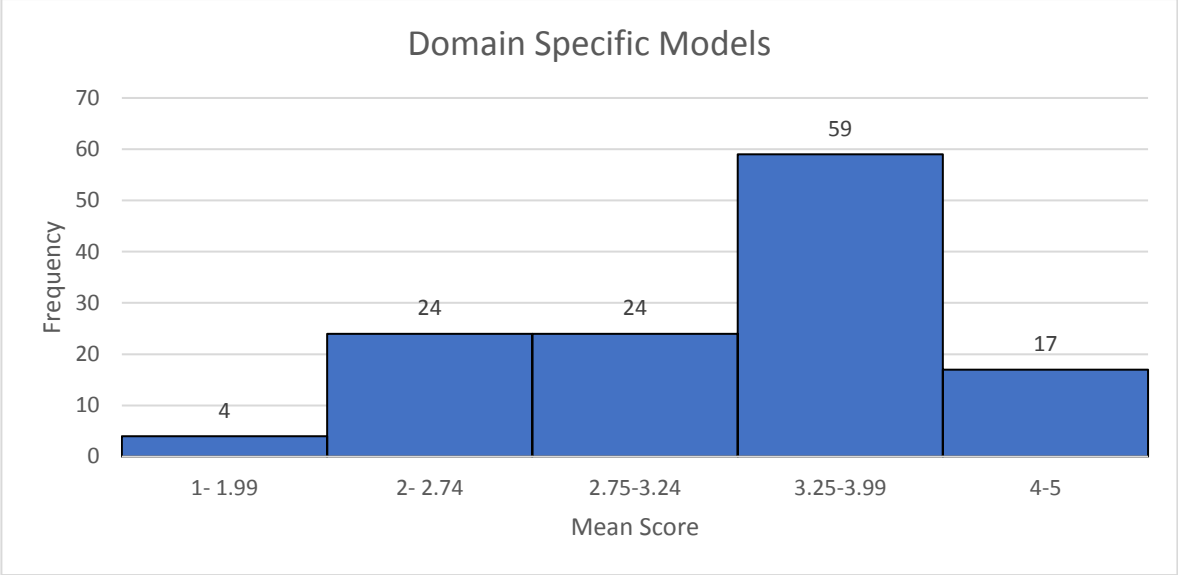

Figure 8. Domain specific models mean distribution

Systems Models. The histogram (Figure 9) is skewed to the right with the highest number of participants (59) fitting in the highly positive mean score range (4 < M< 5). Following, 46 participants scored in the positive mean score range (3.25< M< 3.99).

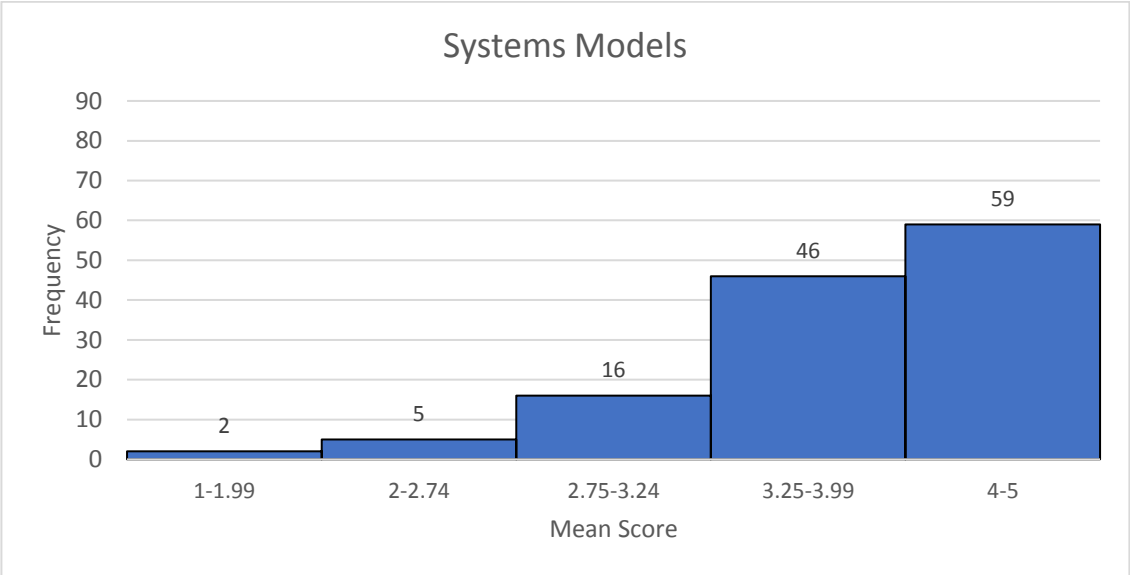

Figure 9. Systems models mean distribution

Developmental Models. The histogram (Figure 10) is skewed to the right with almost all participants (i.e. 113 out of 128) scoring in the highly positive mean score range ($4 < M < 5$). Also, twelve participants scored in the positive mean score range. Only three participants scored in the ambivalent and negative mean score range. These scores indicate that participants highly perceived giftedness as suggested by the 'developmental models'.

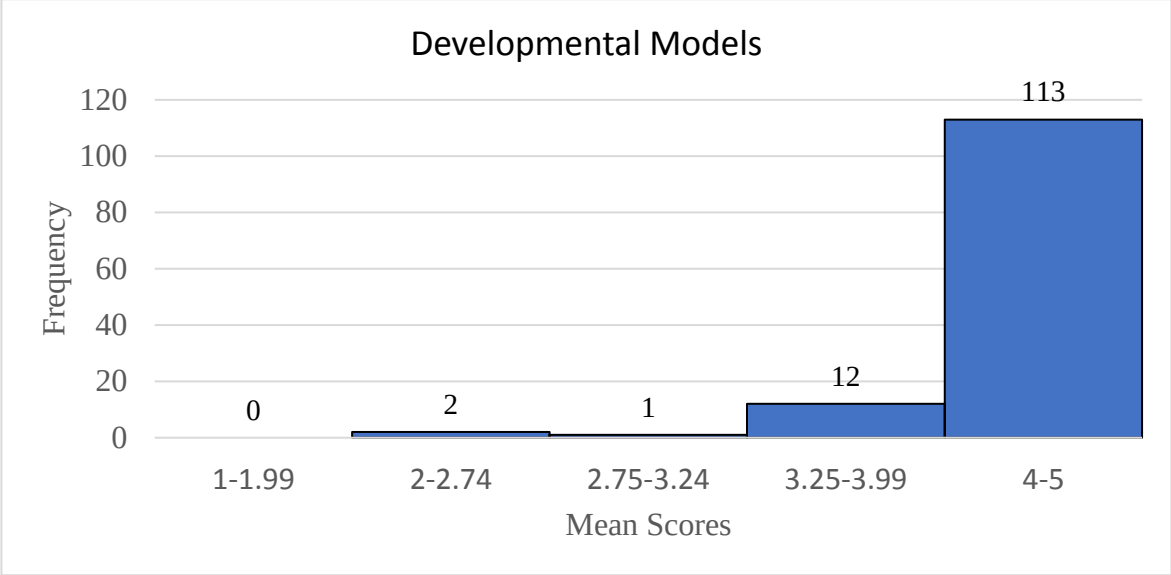

Figure 10. Developmental models mean distribution

Conceptions of Giftedness Means and Standard Deviations. Means and standard deviations were computed for the four conception models (see Table 8). Results revealed that 'developmental models' items had the highest mean score (M= 4.57), which reflects the highly positive rating range. Also, they had the least standard deviation (SD=0.58). Moreover, 'domain general models' scored slightly more than 'systems models' items in the positive range mean scores. However, the standard deviation of 'system models' items was lower than 'domain general models' items'. This

indicated higher agreement among participants towards ‘systems models’ items than ‘domain general models’. Finally, the least positive mean score corresponded to items in ‘domain specific models’. Results also revealed the highest standard deviation (SD = 0.71) corresponded to items in ‘domain specific models’.

Table 8. *Mean scores and standard deviations of conceptions of giftedness*

Model	Mean	Std. Deviation	Rating
Developmental Models	4.57	0.59	HP
Domain General Models	3.84	0.83	P
Systems Models	3.78	0.63	P
Domain Specific Models	3.28	0.71	P

4.1.3 Provisions of Gifted Programs’ Subscales

This subsection provides answers to the second research question: “What are elementary teachers’ perceptions of gifted programs?” These answers were extracted from responses to the second section of the questionnaire, which was adapted from McCoach and Siegle (2007) as discussed previously. The items in this section were divided into four subscales: support, elitism, acceleration and self-perception. A five-point Likert scale was utilized for participant responses (1=strongly disagree, 2=somewhat disagree, 3= neutral, 4=somewhat agree, 5=strongly agree). Mean scores of items which were negatively worded (Q21, Q23, Q33) were reversed to align with other items, whereby a higher mean score in these items indicated a higher degree of positivity. The findings of each subscale are presented separately, then a line graph of the cumulative results is outlined.

Support. The support subscale contained five items that assessed participants' belief in the needs of gifted children as well as their support for special services for the gifted. Mean scores, standard deviations, and ratings were computed and outlined in Table 9. High mean scores on items in this subscale indicate positive attitudes towards the gifted (McCoach and Siegle, 2007). Therefore, mean score (M) ranges were rated as follows: 4 <M< 5 indicate highly positive (HP) attitude, 3.25 <M< 3.99 indicate positive (P) attitude, 2.75<M<3.24 show ambivalent attitude, 2 <M< 2.74 show negative attitude, and M<2 indicates highly negative attitude. Two items (Q22, Q23) in this subscale were negatively worded so their corresponding score was reversed. For example, the mean score of item Q22 was M=1.95. By reversing its score to keep in line with other items in this subscale, the mean score was replaced with M=4.05 (M=6 – 1.95).

Table 9. *Means, standard deviations, and ratings of teachers' responses to Support items*

Item Number (Q)	***Item***	***Mean (M)***	***Std. Deviation***	**Rating**
Q19	Since programs for children with learning difficulties exist, programs for gifted children should be established as well	4.61	0.61	HP
Q20	Our schools should offer special education services for the gifted	4.51	0.78	HP
Q21	The gifted need special attention to fully develop their talents	4.50	0.81	HP
Q22	Schools should not offer special education for the minority of children who are gifted *(reverse scored)*	4.05	1.17	HP
Q23	All special programs for the gifted should be abolished *(reverse scored)*	4.02	1.19	HP

The mean scores for responses to items in the *support* subscale revealed that participant teachers highly believe in the needs for gifted students (see Q19, Q21 in Table 9). Also, participants highly support special services for the gifted (Q19, Q20,

Q22, Q23). All items in this subscale were rated highly positive indicating that participant teachers highly acknowledged the educational needs of the gifted and supported special services tailored for them. The item which recognized the support of special programs to gifted students as equivalent to learning difficulties programs had the highest mean (M=4.61) and the least standard deviation (SD=0.61). Figure 11 illustrates participants' mean responses to the items in the *support* subscale, arranged in a descending order.

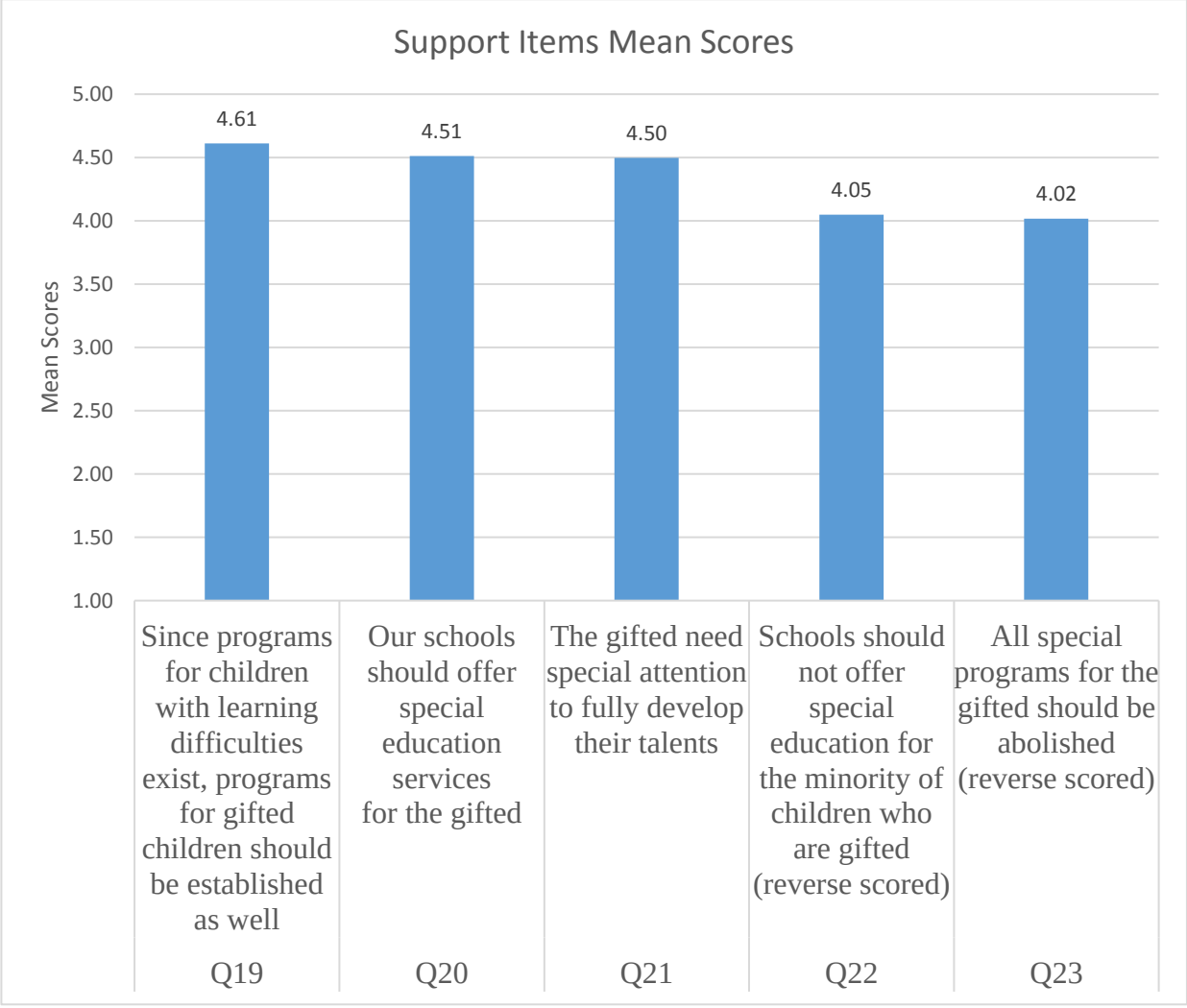

Figure 11. Support items mean scores

Support subscale sample distribution. Means of the item scores in the *support* subscale were computed. Histograms of the frequency of participants as a function of mean score ranges are illustrated in Figure 12. The histogram (Figure 12) is skewed to the right with 93 participants scoring in the highly positive mean range ($4 < M < 5$) and 28 participants in the positive mean score range ($3.25 < M < 3.99$). This distribution reveals that the majority of participants highly support educational programs for gifted students and recognize gifted students' needs.

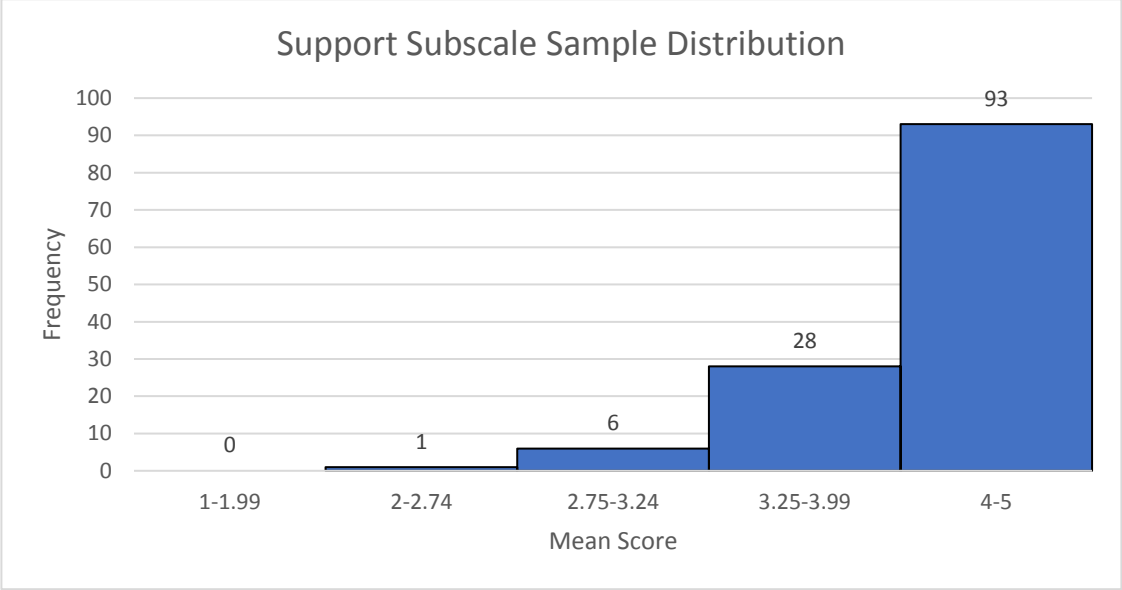

Figure 12. Participant teachers' support sample distribution

Elitism. Elitism subscale contained six items that measured participants' objections and resistance to gifted programs based on the favoured status gifted students may have in schools and the concerns about elitism. Mean scores, standard deviations, and ratings were computed and outlined in Table 10. High mean scores on items in this subscale indicate more negative attitudes towards the gifted (McCoach and Siegle, 2007). Therefore, in contrary to the support subscale, mean scores (M) ranges were rated as follow: $4 < M < 5$ indicate highly negative (HN) attitude, $3.25 < M < 3.99$ indicate

negative (N) attitude, 2.75<M<3.24 show ambivalent attitude, 2 <M< 2.74 show positive attitude, and M<2 indicates highly positive attitude.

Table 10. *Means, standard deviations, and ratings of teachers' responses to Elitism items*

Item Number	***Question***	***Mean***	***Std. Deviation***	***Rating***
Q25	Special educational services for gifted children are a mark of privilege	3.37	1.15	N
Q27	By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good, etc	3.29	1.22	N
Q26	When the gifted are put in special classes, the other children feel devalued	3.03	1.13	A
Q28	The gifted are already favoured in our schools	2.90	1.12	A
Q29	Gifted children might become vain or egotistical if they are given special attention	2.86	1.08	A
Q24	Special programs for gifted children have the drawback of creating elitism	2.85	0.94	A

The mean scores for responses to items in *elitism* subscale reported negative attitudes in two items (Q25, Q27). Participant teachers perceived special educational services for gifted children as a mark of privilege (Q25, M=3.37). They also somewhat agreed that by separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good, etc. (Q27, M=3.29). However, participants had an ambivalent attitude in the other four items (Q26, Q28, Q29, Q24). They were not certain whether gifted programs have the drawback of creating elitism, nor whether gifted students become vain when given special attention. Standard deviations were between 0.94 and 1.15 revealing a large variance in agreement among participants. Figure 13 illustrates participants' mean responses to the items in *elitism* subscale.

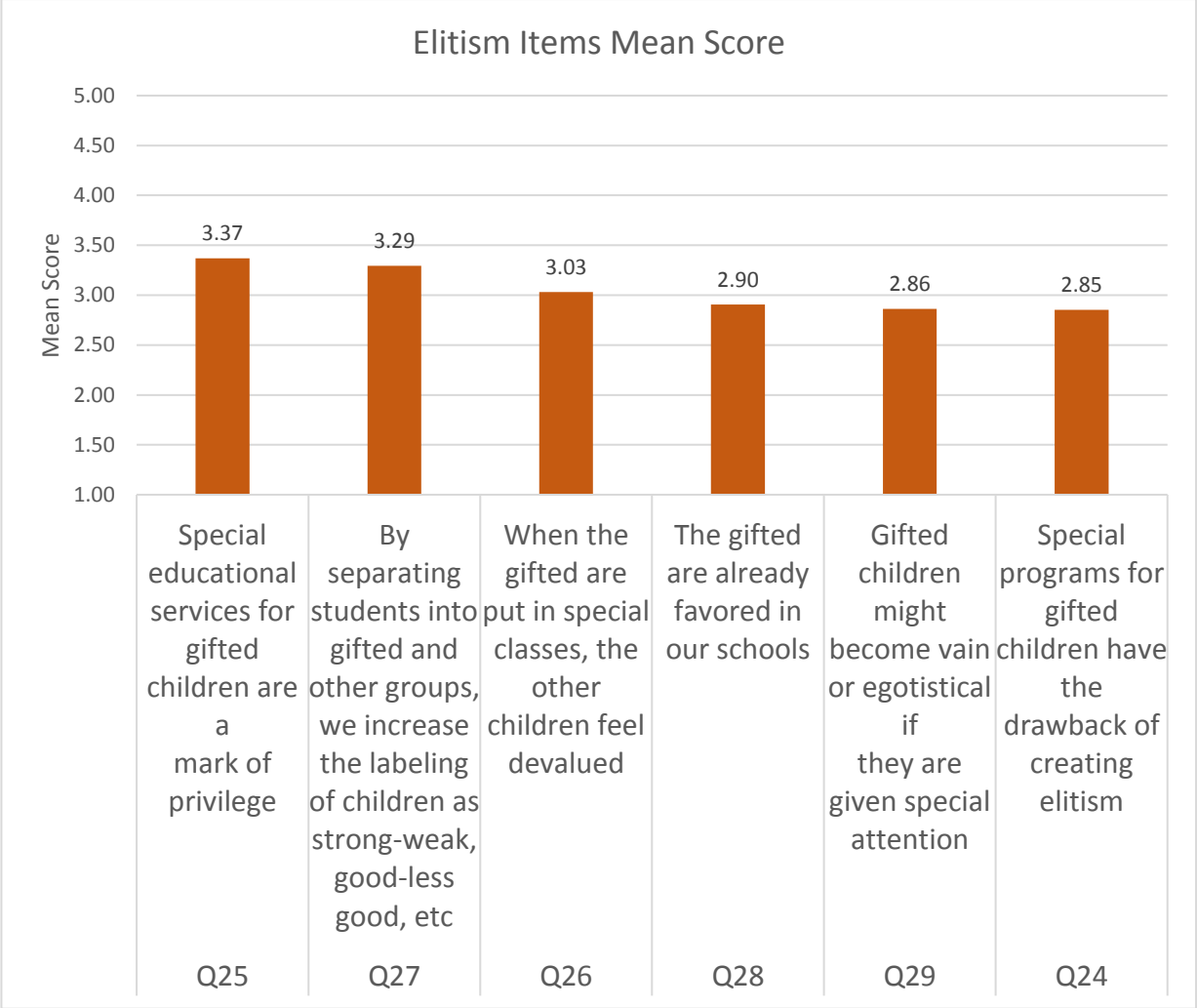

Figure 13. Elitism items mean scores

Elitism subscale sample distribution. Means of the item scores in the *elitism* subscale were computed. Histograms of the frequency of participants as a function of mean score range are illustrated in Figure 14. The histogram reveals a normal distribution among participants in the mean score ranges. Equivalent frequencies in the ambivalent and negative mean score range were recorded. Also, a similar number was noted in the positive mean score range. Highly positive and highly negative response rates corresponded to the lowest number of participants.

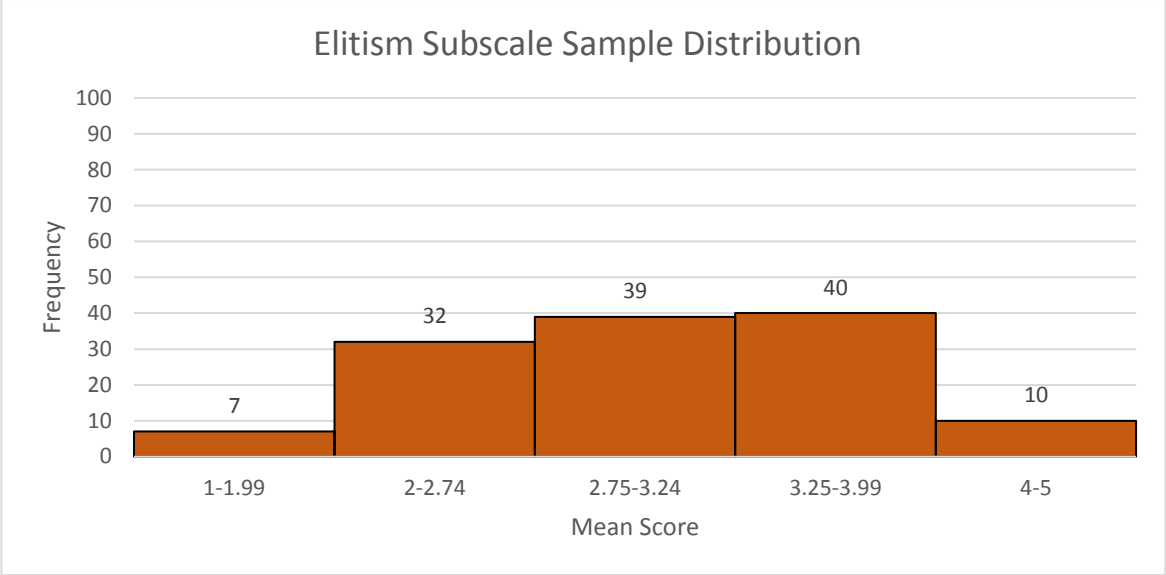

Figure 14. Participant teachers' elitism sample distribution

Acceleration. The acceleration subscale contained four items that measured participants' perceptions towards acceleration for gifted students. Mean scores, standard deviations, and ratings were computed and outlined in Table 11. High mean scores on items in this subscale indicate negative attitudes towards the gifted (McCoach and Siegle, 2007). Therefore, similar to the elitism subscale, mean scores (M) ranges were rated as follows: 4 <M< 5 indicate highly negative (HN) attitude, 3.25 <M< 3.99 indicate negative (N) attitude, 2.75<M<3.24 show ambivalent attitude (A), 2 <M< 2.74 show positive attitude (P), and M<2 indicates highly positive attitude (HP). Item (Q33) in this subscale was negatively worded so its corresponding score was reversed.

Results revealed that the four acceleration item mean scores were negatively rated. Item Q33 (M=3.37) indicated that participants do not support the notion that gifted students should skip a grade. This may be due to concerns that gifted students who skip a grade have difficulties in their social adjustments to older students (Q30) and that skipping a grade would result in missing important ideas (Q32). The highest mean score

corresponded to the item (Q31) which indicates that teachers perceived that children who skip a grade are pressured to do so by their parents. Figure 15 illustrates participants' mean responses to the items in the *acceleration* subscale.

Table 11. *Means, standard deviations, and ratings of teachers' responses to Acceleration items*

Item Number	***Question***	***Mean***	***Std. Deviation***	***Rating***
Q31	Children who skip a grade are usually pressured to do so by their parents	3.52	0.95	N
Q30	Most gifted children who skip a grade have difficulties in their social adjustment to a group of older students	3.43	1.02	N
Q33	A greater number of gifted children should be allowed to skip a grade (reverse scored)	3.37	1.12	N
Q32	When skipping a grade, gifted students miss important ideas (they have holes in their knowledge)	3.26	1.16	N

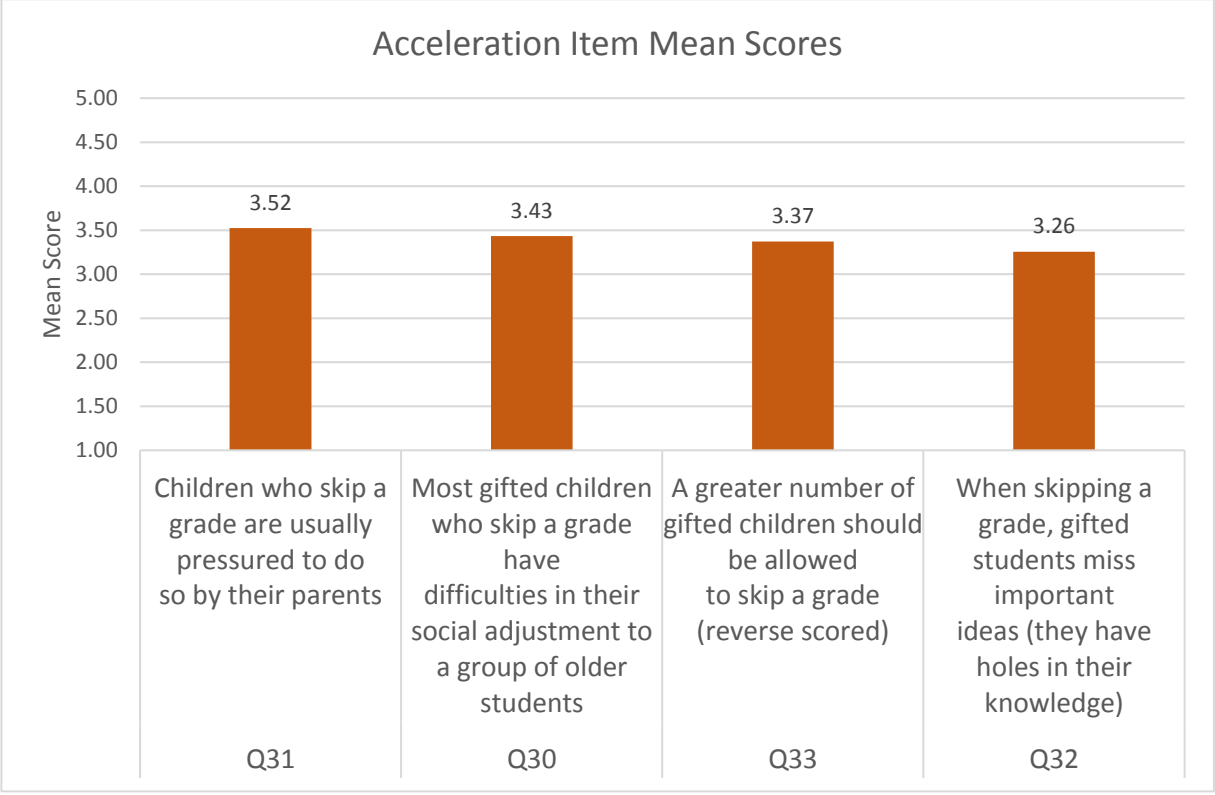

Figure 15. Acceleration items mean scores

Acceleration subscale sample distribution. Means of the item scores in the *acceleration* subscale were computed. Histograms of the frequency of participants as a function of mean score range are illustrated in Figure 16. The histogram reveals that more than half the participants scored in negative mean score ranges.

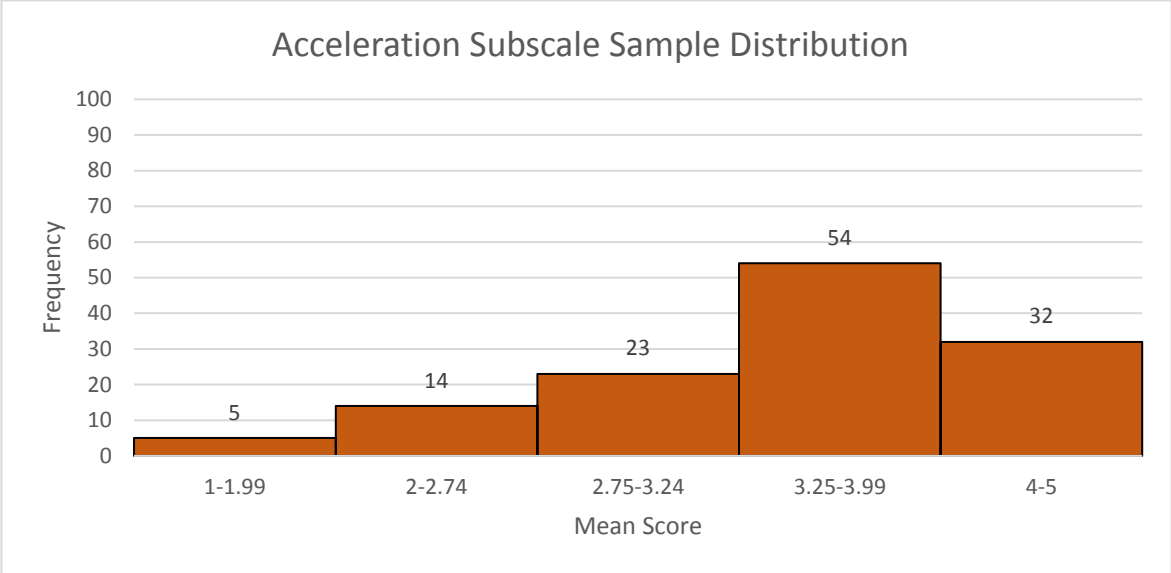

Figure 16. Participant teachers' acceleration sample distribution

Self-perception. The self-perception subscale contained five items which measured participants' own perception of themselves as gifted. Mean scores, standard deviations, and ratings were computed and outlined in table 12. High mean scores on items in this subscale indicate that participants perceive themselves as gifted (McCoach and Siegle, 2007). Therefore, similar to support subscale, mean scores (M) ranges were rated as follow: 4 <M< 5 indicate highly positive (HP) attitude, 3.25 <M< 3.99 indicate positive (P) attitude, 2.75<M<3.24 show ambivalent attitude, 2 <M< 2.74 show negative attitude, and M<2 indicates highly negative attitude.

The mean results for responses to items in the *self-perception* subscale indicated that participant teachers do not perceive themselves nor their families and friends as

gifted (Q34. Q36). Also, they do not agree with the item which stated that they were or could have been in a gifted program in school. Figure 17 illustrates participants' mean responses to the items in the *self-perception* subscale.

Table 12. *Means, standard deviations, and ratings of teachers' responses to Self-perception items*

Item Number	***Item***	***Mean***	***Std. Deviation***	***Rating***
Q34	Most of my family and friends are gifted	2.49	1.05	N
Q35	I was or could have been in a gifted program in school	2.50	1.05	N
Q36	I am gifted	2.62	1.04	N
Q37	Most of my family and friends consider me gifted	2.64	0.97	N
Q38	People consider me gifted	2.65	1.01	N

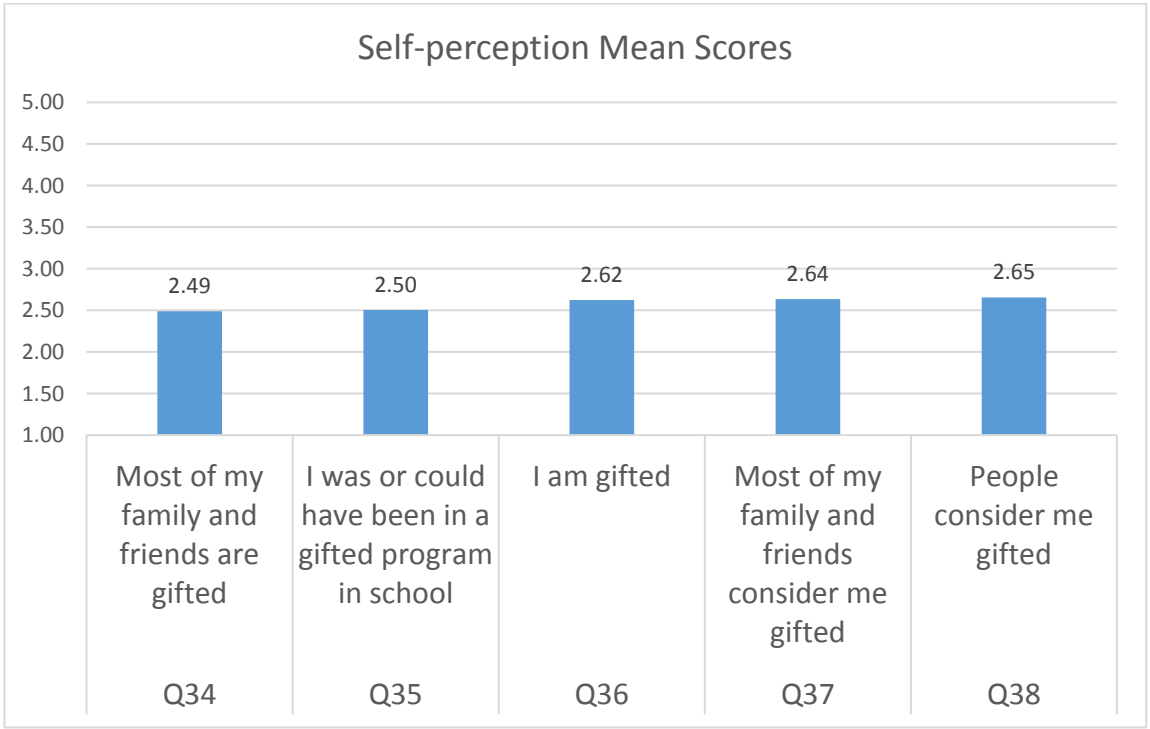

Figure 17. Self-perception items mean scores

Self-perception subscale sample distribution. Means of the item scores in the *self-perception* subscale were computed. Histograms of the frequency of participants as a function of mean score range are illustrated in figure 18. Half of the number of participant teachers scored in the highly negative and negative mean score ranges. Also, a reasonable number of participants (32) had ambivalent attitudes towards their gifted status. The smallest portion of participants scored in the positive and strongly positive mean score range.

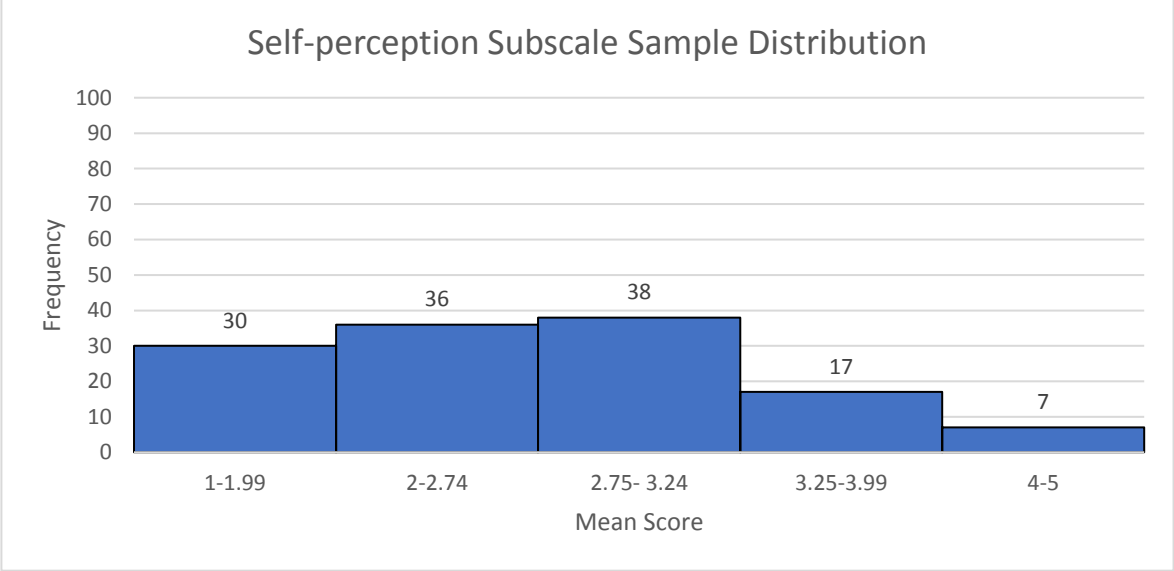

Figure 18. Participant teachers' self-perception sample distribution

Mean scores of subscales. Mean scores and standard deviations were computed for each subscale (see Table 13). Results revealed that the mean score of the 'support' subscale was in the highly positive range, which indicates that participant teachers highly supported the needs of gifted students for gifted programs provisions. However, 'elitism' subscale's mean score was ambivalent revealing teachers' unclear decision on whether gifted students would have a favoured status in schools and society.

Additionally, acceleration and self-perception subscales' mean scores were in the negative range. Accordingly, participants had negative perceptions toward grade skipping. Also, their interpretation of their own level of giftedness was negatively perceived. The standard deviation of the support subscale (SD = 0.63) was the lowest, whereas the standard deviation of self-perception subscale (SD = 0.87) was the highest with respect to the other subscales.

Table 13. *Mean scores and standard deviations of subscales*

Subscale	Mean	Std. Deviation	Rating
Support	4.34	0.63	HP
Elitism	3.05	0.66	A
Acceleration	3.40	0.78	N
Self-perception	2.58	0.87	N

4.1.4 Summary of Quantitative Results

In sum, this section provided the quantitative results of the survey questionnaire. The results of the questionnaire's first section showed that elementary teachers highly adopt giftedness views depicted by developmental models. In other words, they perceived that training/practice, environmental factors and personal characteristics highly impact gifted students' development. They also perceived that gifted students have high abilities in specific domains but not in all domains. The results of the second section in the questionnaire implied that teachers highly support gifted program provisions. Additionally, their attitude towards elitism was ambivalent, and their attitude towards acceleration and self-perception was negative. Further exploration of the results showed that roughly 50% of the participant teachers scored more than: 4.4 on the

support subscale, 3.14 out of 5 on the elitism subscale, 3.4 out of 5 on the acceleration subscale, 2.6 out of 5 on the self-perception subscale (Figure 19).

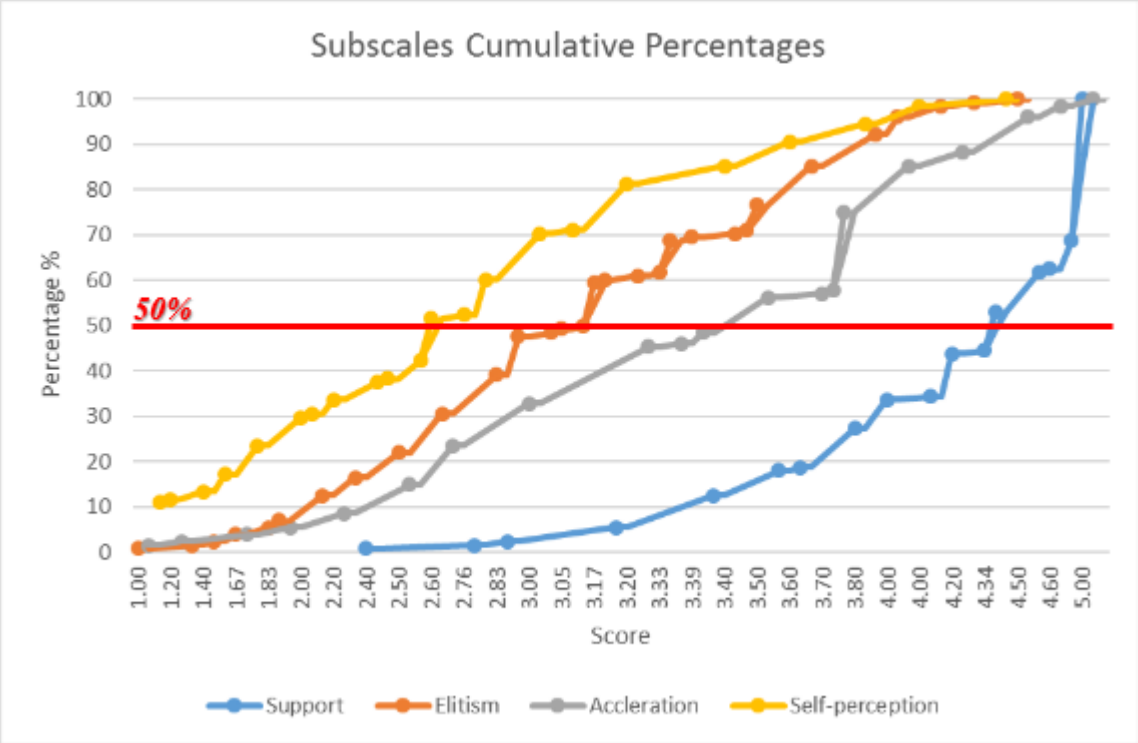

Figure 19. Cumulative Percentages of Support, Elitism, Acceleration and Self-perception Scores

4.2 Qualitative Results

Qualitative results were based on the interview responses completed by nine principals from nine out of the eleven schools where elementary teachers completed the questionnaires (see Appendix H). The qualitative data was organized into themes that emerged from the thematic analysis of the interview responses. Thematic analysis is a process by which themes are extracted through "careful reading and re-reading of the data" (Rice & Ezzy, 1999, p.258). The interviews addressed school principals' perceptions of giftedness and gifted program provisions. Accordingly, six main themes emerged from the analysis of the interviews:

1) Principals' understanding of giftedness and gifted students' traits
2) Educational provisions of outstanding students
3) Needs and support for gifted programs
4) Schools' current gifted programs provisions
5) Barriers to gifted programs provisions
6) Conceptions of an ideal gifted program

4.2.1 Principals' understanding of giftedness and gifted students' traits

'Principals' understanding of giftedness and gifted student traits' emerged as one of the key themes after iteratively analyzing principals' interview responses. This theme captured principals' views toward giftedness and their perceptions of gifted students' traits. It was classified into two categories: 1) academic features and 2) personality and creativity features. Categories were further divided into eight subcategories: unique traits, natural traits, advanced traits, social traits, personal traits, creativity traits and musical and artistic traits. Table 14 illustrates the thematic categories and subcategories, with excerpt phrases from interviewees' responses.

Principals described giftedness in terms of: (1) academic features and (2) personality and creativity features. Two of the nine principals starkly restricted giftedness to academic aspects. This restriction was eminent in statements such as: "a child could be gifted in one specific area as mathematics or gifted in most subject areas" and "giftedness is when a child has a significantly high performance in one subject area or more." In contrast, six principals extended their description of giftedness to personality aspects. Statements such as "giftedness is excelling in any aspect whether it's academic, skills, personal traits" and "… can be intellectual, creative, social, and even physical," "the concept of being gifted is not only related to the academic

achievement" or to school life and "it manifests through the learner's personality, attitude, way of thinking, creativity, social, artistic and other attributes" depict this extension.

Principals who conceived giftedness as a function of academic features highlighted several gifted student traits, which were categorized into: advanced, unique and natural. Eight principals, out of the nine who responded to the interview questions, associated the concept of giftedness with advanced traits such as 'more developed skills', 'high intellectual ability', 'above the average potential', 'excelling in any aspect', 'outstanding talents and potentials', 'significantly high performance'. One principal had a unique view of giftedness and described a gifted student as "a student who learns differently, has different skills and abilities, thus…will need different techniques." Moreover, three of the participant principals described giftedness as innate (i.e. attributed to nature) in phrases such as "this is due to hereditary factors", "natural potential" and "inborn strength and natural motivation". Also, another view, aligned with viewing giftedness as innate, associated giftedness with high IQ scores, as it was stated that giftedness "could be [the] definition of a child of high IQ".

Principals who conceived giftedness as a function of personality and creativity features also highlighted several gifted student traits, that were categorized into: social, personal, creativity and musical/artistic. Principals who highlighted social traits as attributes of gifted students used phrases such as: "can have social potential and skills" and "leadership qualities." Phrases related to personal traits included "self-directed," "speedy in thinking" and "day dreamers." Creativity and musical/artistic traits were expressed by phrases such as "creative and innovative" and "high musical abilities" respectively.

It was clear that principals not only associated the characteristics of gifted students with positive terms as ‘smart’, ‘creative’, ‘social’, ‘artistic’, ‘talented’, ‘rapid learners’, and ‘curious’ but also with negative ones such as ‘withdrawn’, ‘annoying’, ‘disruptive’, ‘bored’, ‘angry’, ‘depressed’ and ‘approval-seeking’. These negative characteristics were highlighted as a depending variable on the gifted child’s environment. One principal also assured that these negative attitudes escalate when gifted students “are not spotted or detected”.

Table 14. *Principals’ understanding of giftedness and gifted students’ characteristics*

Categories	**Subcategories**	**Excerpt Phrases from the interview responses**
Academic Features	Unique traits	learn differently
	Natural traits	natural potential that is clearly above the average potential
		High IQ
		hereditary factors
	Advanced traits	significantly high performance in one area or more
		academic abilities way above their peers
		outstanding learning performance
		excelling in academic aspect
		in one specific area such as mathematics or in most subject areas
		high grades
		high achievers
		excel in specific academic fields
		rapid learners, grasps concepts quickly
		excellent memory
		developed language (word hints, comparisons and abstract ideas)
		above average in most school performance
		ask intelligent, precise questions
		do excellent work , do not need help in their school work, learn themselves
Personality and Creativity features	Social traits	can have social potentials and skills
		due to environmental factors
		extremely sensitive with social behavior

		leadership qualities/ skills
		louder than others, annoying, disruptive, with drawn, sad, talkative
		angry, bored, approval-seeking
	Personal traits	excelling skills and personal traits
		outstanding talents and potentials
		high levels of accomplishments
		learner's personality, attitude, way of thinking, creativity, social, artistic
		self-directed / independent
		personal skills/ presentation skills
		curious/ show strong feelings and opinions/ curious to learn more
		extremely motivated and deeply involved in the work
		persistent in completing tasks
		worry about social and political matters and inequalities
		use their effort to reach their goals
		speedy in thinking
		inconsistent in their work
		not organized
		day dreamers
		inborn strength
		natural motivation
	Creativity traits	outstanding creativity
		high critical thinking abilities
		creative and innovative
		vibrant imaginations
	Musical and Artistic traits	high musical abilities
		high artistic abilities/ skills

In sum, the majority of participant principals viewed giftedness as a concept associated with advanced abilities in specific domains rather than all domains. It was also revealed that they acknowledged the personality and creativity factors associated with giftedness, and few principals emphasized that this concept was not limited to academic achievement and school performance.

4.2.2 Educational provisions of outstanding students

The theme "Educational Provisions of Outstanding Students" describes the provisions offered by the participant schools to cater to the needs of outstanding students. One principal stated that their school doesn't cater nor have any special programs to enhance outstanding students' abilities. Yet, other principals described different educational provisions provided by the teachers for the aforementioned reason. These provisions were classified into three categories: 1) differentiation in teaching methods, 2) special programs and 3) other (i.e. academic award and leadership roles).

Differentiation in teaching methods. Differentiation in teaching methods was described by six principals as a school strategy practiced by teachers as a means of catering to the needs of outstanding students. One principal explained that for main subjects (i.e. math, sciences and language), different subject levels (i.e. high, standard, low) were offered according to students' performances. It was evident that there was no clear policy for differentiation, since most principals mentioned that they counted on teachers to differentiate in classrooms based on students' abilities. The following are excerpts from principals' responses:

- "Asking teachers to create different strategies for the gifted students to be shown…Try to give them extra work or projects."
- "Provide him with challenging questions/ brainteasers / assignments…"
- "Teachers use different teaching/learning techniques and strategies."

Special Programs. Two principals described the special programs offered by their schools to outstanding and gifted students. One school had implemented structured individualized programs for gifted students and was moving toward a 'Universal Design for Learning,' as stated by the school's principal. This school principal stated that "while

the department focuses largely on learning difficulties, it could be termed a 'department of learning diversity' that could also provide supports and challenges for gifted children, *should we have any*". The other school principal asserted that the school had recently launched a program "Introduction of the Gifted and Talented" monitored by a specialist in gifted education. This program was considered as an extracurricular activity that came along with a set of differentiation methods provided by the school.

Other (Academic awards and Leadership roles). Other educational provisions provided by the participant principals included: academic awards and leadership roles. One school principal implied that although their school caters for students with learning difficulties and offer special programs for them, they do not cater for outstanding students in classrooms. Yet, students are provided with either scholarships or nominations on honor lists as a positive reinforcement to promote their performance. Another school principal stated that outstanding students were given the roles of 'academic' helpers in their classrooms.

In sum, the most dominant strategy practiced by schools to cater to outstanding students' needs is *differentiation in teaching methods*. Two schools offered special programs for both outstanding students and students with learning difficulties while one school didn't cater to outstanding students at all. Other schools provided outstanding students with awards or leadership roles.

4.2.3 Needs and support for gifted programs

The theme "Needs and support for gifted programs" was another key theme that emerged from the principals' interview responses. This theme communicates participating principals' attitudes toward gifted programs and the reasons behind their attitudes. All principals had positive attitudes toward offering special programs for

gifted students in Lebanese schools. Yet, one principal suggested that "taking gifted students out of their classes is not a good idea; they should stay to ensure a heterogeneous classroom; they can work as helpers." Consequently, he/she was more inclined to offer these services in the afternoon. The main reasons for support for gifted programs provisions were: 1) equality and equity and 2) challenging gifted students.

Equality and equity. Equality and equity are two strategies used to promote fairness. While equity in education provides students what they need to be successful, equality entices treating all students the same. Three principals highlighted the importance of gifted programs provisions in light of believing in equity and equality between them and students with learning difficulties. One principal stated that "all children are entitled to educational programs that help them reach their potential." He/she added to this that "as children with special educational rights, these children should be provided for with care and by those with knowledge in the field." Additionally, another principal judged that "it is unfair for those students to be placed in a classroom that does not offer special giftedness programs." Furthermore, a third principal described their school as an inclusive one. Consequently, this school "provide[d] services for underachievers" and the principal assured that they "…do not only think that special programs should be offered in schools in Lebanon, we [school principals] believe in equity."

Challenging gifted students. Six principals perceived that gifted programs provisions are indispensable for developing gifted students potentials. Otherwise, they implied that gifted students "…will be bored", "[will be] unable to develop study skills", and this may lead to "learning difficulties status". Furthermore, three principals highlighted the challenges of the 21st century and the importance of preparing students to

meet these challenges, thus they stated that "schools must integrate special programs for the gifted students". Finally, one principal acknowledged the significance of training teachers for the aforementioned special programs.

In sum, all participant principals highly supported gifted programs provisions. Their beliefs concentered around challenging gifted students to optimize their potentials and providing them with equality and equity in education.

4.2.4 Schools' current gifted programs' provisions

The theme "Schools' current gifted programs provisions" describes any special services offered by participant schools for gifted students. Seven principals assured that their schools do not provide special programs for gifted students while the other two principals referred to the provisions for outstanding students discussed previously. Two principals assured that they will implement a special program for gifted students in the future. Another principal assured that "gifted students are given the opportunity to develop their giftedness, to a certain level, through clubs and extracurricular activities and performances…"

In sum, two participant schools reported that they offered special programs for outstanding and gifted students. One program was referred to as the "Universal Design for Learning" which aimed at "catering to the needs of all children". The other program was "Gifted and Talented Program," described as a program whereby "outstanding students are [were] screened for their significant abilities and provided with challenging tasks".

4.2.5 Barriers to gifted programs provisions

The theme "Barriers to gifted programs provisions" describes the reasons for the absence of special services for gifted students in Lebanese private schools. Two main

reasons were extracted from the interview responses: 1) Lebanese curriculum and 2) resource constraints.

Lebanese curriculum. Five principals described the reasons for the absence of gifted programs provisions in Lebanese schools to be due to the tight Lebanese curriculum. They assured that without any curricular reform, there would not be any efficient time for special programs. They also agreed that the Lebanese standardized tests consumed a lot of planning and teaching time. The following are excerpts from the interview responses:

- "There are no educational reforms in in Lebanon"
- "Demands of the Lebanese curriculum, the pressure and the time restrictions for completing the curriculum on specific time. Also, we are guided by the curriculum to focus on different areas and neglect others."
- "We are under the pressure of the standardized tests that consume the time and energy of the staff members and students; The Lebanese society still holds big credit to those tests and finds it difficult to not follow the official curricular standards."
- "Official exams limited to certain subject areas and do not evaluate other areas; Curricula implemented in schools are tight in time and resources"

Resource constraints. Four principals shed the light on the importance of resources for implementing special gifted programs. Resources outlined in the responses included: finances, professional development and time. The following excerpts were extracted from the interview responses.

- "You need extra resources / physical/ space/ stations/ educational games / good quality / technological tools like ipads for example."

- "We also have difficulty finding the efficient trainings for our staff in this field of expertise. Time and Finances also count among the boundaries."
- "Lack of expertise; financial issues…"
- "Parents in our schools are not able to pay high fees for such programs."

In sum, principals perceived that the restrictions of the Lebanese curriculum and constraints of resources such as finances, professional development and time have hindered the implementation of gifted programs in Lebanon.

4.2.6 Conceptions of an ideal gifted program

The theme 'Conceptions of an ideal gifted program' describes principals' perceptions of an ideal program for gifted students. Principals had various suggestions for ideal programs that included: differentiation, class heterogeneity, self-contained programs, staff expertise in the area, accelerating learners and extra-curricular activities. Two principals implied that they need to research more on this topic as they do not have enough knowledge about this matter.

In sum, diverse suggestions regarding ideal programs were described by participant principals.

4.3 Summary of quantitative and qualitative results

This chapter presented a descriptive statistical analysis of the quantitative results gathered from the survey questionnaire and content analysis of the qualitative data gathered via the interview research. The results addressed the research questions of the study that focused on teachers' and principals perceptions of giftedness and gifted programs. Findings of this research, based on both quantitative and qualitative data, revealed that most educators (i.e. teachers and principals) perceived giftedness as a

valuable concept and that they were aware of the significance of supporting gifted students to develop their potentials.

The analysis of teachers' responses revealed an agreement among teachers on the conceptions of giftedness as well as on supporting gifted programs. Results indicated that participant teachers (N=128) had a positive attitude toward gifted students' needs. On average, they scored high on the *support* subscale, adopted from McCoach and Siegle (2007). However, participants indicated an ambivalent attitude toward *elitism*. Furthermore, the *acceleration* and *self-perception* subscales were perceived negatively.

The analysis of principals' responses revealed an agreement among them on the general perceptions of giftedness conceptions. The participant principals (N=9) perceived (1) personality and creativity features and (2) academic features as the main traits of gifted students. Additionally, they all supported gifted programs provisions and perceived them as essential for challenging gifted students and promoting equity and equality in education. Yet, some participants had conservative reservations in relation to offering special gifted programs within regular classrooms.

The next chapter discusses the results of this study, assumptions and limitations of the study and provides a set of recommendations for future research and practice.

Chapter Five

5.1 Discussion

The purpose of this study was to examine elementary teachers' and principals' perceptions of giftedness and gifted programs in Lebanese private schools. The study followed a mixed-methods approach, by which a survey and an interview were

employed to collect quantitative and qualitative data respectively. Quantitative data was used to examine participant teachers' perceptions of giftedness (via the first section of the questionnaire) and gifted programs (via the second section of the questionnaire). Another instrument, a semi- structured interview, was used to collect qualitative data for exploring school principals' conceptions of giftedness, perceptions of gifted programs and gifted program provisions. Findings of this study revealed that educators highly supported the needs of gifted students and held positive attitudes toward gifted program provisions. More specifically, the results of the questionnaire suggested that teachers' conceptions of giftedness in terms of the four temporal waves rank as follows (from highest to lowest):

- Wave 4: Developmental models (mean score M=4.57, highly positive)
- Wave 1: Domain general models (M=3.84, positive)
- Wave 3: Systems models (M= 3.78, positive)
- Wave 2: Domain specific models (M=3.28, positive)

Results also showed that teachers highly supported the need of providing gifted programs (M= 4.34). However, they had an ambivalent attitude toward elitism (M=3.05) and a negative attitude toward both acceleration (M=3.40) and self-perception (M=2.58). The results of the interview analysis revealed that principals viewed giftedness as an abstraction of academic, personality and creativity features, previously highlighted in Table 14. Also, principals highly supported gifted program provisions. Yet, they highlighted the barriers of establishing them. Two schools reported that they provided special programs for outstanding and gifted students. However, none of the schools had an established formal program for gifted students.

This chapter discusses the major findings of this research in light of the relevant literature. Furthermore, it presents the theoretical and practical implications of the study. Assumptions, limitations, recommendations for future research and practice and a conclusion are outlined.

The results of this study align with the literature in several ways. First, the findings of the questionnaire reinforce the evolution of the giftedness concept in four temporal waves: domain general, domain specific, systems and developmental models (Kauffman & Sternberg, 2008). Teachers' responses to this study's questionnaire suggested that they predominantly conceive giftedness as a concept derived from developmental models. The 'developmental models' represent the fourth wave of the concept's evolution in the literature, by which external factors were addressed (Kauffman & Sternberg, 2008). These external factors included environmental factors (e.g., home and school), non-intellective variables (e.g., motivation and temperament), and learning (i.e., practice and training). In addition, participant teachers perceived giftedness concept as suggested in the 'domain general models' and 'systems models' but less positively. While 'domain general models' view giftedness as an ability originating from hereditary factors (Kauffman &Sternberg, 2008; Porter, 2005), 'system models' elicit giftedness as a system that incorporates psychological processes (Brody & Stanley, 2005). Besides, results from the interview responses suggested that some principals viewed giftedness as innate (nature) while others viewed it to be fostered by personality and environmental factors (nurture). Thereby, findings from the questionnaire and interview responses reflected the literature's prolonged nature vs. nurture debate on giftedness (Clark, 2008, 2013; Colangelo & Davis, 2003; Gagné,

2003, 2004b; Porter, 2005; Thompson, Cannon, & Toga, 2002; Renzulli, 2003; Tannenbaum, 1983).

Moreover, the findings of this study align with previous studies (e.g. Smith & Chan, 1996; Chepigo, 2004; Kronborg & Plunkett 2012) which highlighted that educators strongly support gifted program provisions in schools and have positive attitudes toward the needs of gifted students. Additionally, the interview responses revealed that participant principals believed that the potential of gifted students would not be optimized unless they were enrolled in special programs. This aligns with previous findings which suggested that educators believed that gifted students might not succeed on their own unless supported with special programs (e.g. Clark, 2008; Winebrenner 2000; 2009). In Lebanon, where giftedness is largely neglected both as an educational program and as a social construct, it was unexpected to have such high positive support attitudes. This suggests that educators acknowledge the needs of gifted students and recognize the status of inequality gifted students withhold.

On the other hand, some results in this study were incompatible with previous research. For example, some previous studies highlighted educators' lack of support for gifted program provisions and their beliefs that gifted students succeed in a regular classroom due to their high intelligence (Colangelo & Davis, 2003; Cooper, 2009; Davis & Rimm, 2004; Moon, 2009; Peterson, 2009). On the contrary, this study revealed that educators highly supported gifted program provisions and assured that gifted students need special programs to challenge them and optimize their potential. One explanation for Lebanese educators' high support for gifted program provisions might be the complete neglect of gifted students in Lebanon, while there is intense attention drawn to students with learning difficulties. Also, the literature stressed that people who perceive

themselves as gifted are more likely to support gifted programs (McCoach & Siegle, 2007). However, this study revealed that teachers had negative attitudes towards perceiving themselves as gifted, yet, they highly supported gifted programs. One explanation might be that teachers were affected by the Lebanese culture which does not encourage people to perceive themselves as gifted. Moreover, previous studies, in other countries, highlighted either a positive or a negative attitude toward elitism (e.g. Gagne & Nadeau, 1985; McCoach & Siegle 2007). Yet, results in this study showed that Lebanese teachers had an ambivalent attitude toward elitism. It might be that the lack of teachers' experience with gifted programs in Lebanon neutralized their views on elitism.

Moreover, principals' perceptions of ideal gifted programs did not reflect the theoretical framework of giftedness programs which includes various models such as Renzulli's Triad Model and his Schoolwide Enrichment Model, previously discussed. This reflects a discrepancy between Lebanese principals' positive attitude in supporting the needs of gifted students and their conceptions of an ideal gifted program. Also, while some studies showed that differentiation in a regular classroom had negative impact on teachers' support for the needs of gifted students and gifted program provisions (Begin & Gagne, 1994b; Jacobs & Harvey, 2010), Lebanese principals highlighted differentiation in teaching methods as a main attribute of gifted programs. A possible explanation for this might lie in Lebanese schools' adoption of differentiation methods which are tailored for students with learning difficulties. Principals might be inclined to impose a level of equity between gifted students and students with learning difficulties, and as such stress differentiation as an attribute of gifted programs.

This study has theoretical and practical implications. On a theoretical level, it expanded the literature on the giftedness topic in Lebanon. In the Lebanese context,

research on giftedness is scant (Sarouphim, 2009), and research on school principals' perceptions is non-existent. This study provided descriptive insights into educators' perceptions of giftedness. As such, it is a first step towards designing theoretical frameworks that explain Lebanese educators' attitude toward giftedness and gifted programs. Additionally, this study extends the previous literature that limited the construct of giftedness in Lebanon to high academic performance (Sarouphim 2009), as it highlighted significant environmental/personality and academic factors related to the giftedness concept.

The role of educators is highly significant. First, educators' perceptions shape the success of educational policy and practice (Meister, 2010; Ryan & Cooper, 2013). Second, educators have a significant impact on students' educational development (Clark, 2013; Geake & Gross, 2008; Maker & Shiever, 2010; Plunkett & Kronborg, 2011). As such, previous studies in different countries highlighted the negative impact of educators' negative perceptions of giftedness on satisfying the needs of gifted students (Curtis, 2005; Ryan & Cooper, 2013; Taylor & Milton, 2006, 2013). In this study, results indicated that Lebanese educators have positive attitudes toward gifted student needs and gifted program provisions. Yet, giftedness is by far and at large neglected on a national level. Therefore, on a practical level, this study first contributes to the field of education in Lebanon by describing how Lebanese educators recognized the needs of gifted students and highly supported gifted programs provisions. This implies that gifted programs might be established in the future. Second, this study revealed that the neglect of giftedness is not attributed to educators' perceptions. Rather, it is attributed to a higher order system, comprising governmental policies and practice. Inferentially, the

Lebanese curriculum might be the major impediment in establishing giftedness programs in Lebanon.

5.2 Recommendations for Practice

Gifted programs take the form of either an enrichment-based program or a holistic academic program (Rawlins, 2004). Responses from the interview with principals revealed that they lacked knowledge on these programs.

Recommendation 1. Professional development and training on gifted programs should be provided for principals to educate them on existing programs in other countries.

Recommendation 2. A clear conception of giftedness should be developed through providing training to educators.

Recommendation 3. Course designers and university educators should offer education courses that address giftedness as a subject area in the Lebanese context.

A universally shared priority is catering for students with special needs and ignoring the needs of gifted students (Braggett & Moltzen, 2000; Gallagher, 2003; Gross, 2004). According to Sarouphim (2010), education of gifted students is emerging "slowly but surely" and therefore needs to be established on a solid basis. One of the most influential reasons for principals supporting gifted programs provisions was the perception of equity and equality in education.

Recommendation 4. Gifted programs should be equivalent to learning difficulties programs with respect to their prevalence.

A significant challenge, revealed from principals' responses, was the Lebanese curriculum's rigidity and the limitation of resources.

Recommendation 5. Lebanese policy makers should consider reforming the curriculum by considering the needs of gifted students.

5.3 Recommendations for Future Research

Based on the results of the study, the following recommendations for future research in gifted education in Lebanon are presented:

1- Further studies on educators' perceptions of giftedness and gifted programs must be carried out with larger samples representative of the population in order to generalize the results to the Lebanese population.
2- Future research should examine the relationships of the explored subscales (i.e. support, acceleration, elitism and self-perception) through statistical analysis.
3- Further research should focus on the effect of giftedness training on educators' perceptions in Lebanon through an experimental approach.
4- Further research should explore parents' perceptions of giftedness and gifted programs.

5.4 Assumptions/ Limitations

In this study it was assumed that the participants responded honestly and truthfully to the items in the questionnaires and to the interview questions. Another assumption was that the researcher was not biased towards any aspect of the topic while designing the questionnaire and deciding on the interview questions.

Limitations of the study include:

1. Small and non-randomized sample size of principals and teachers. Therefore, the results cannot be generalized to the entire Lebanese population of principals and teachers.
2. Instruments used lend themselves to possible distortion of the truth, especially interviews that might lead participants to withhold or distort information to put themselves in good light.
3. Lack of actual gifted programs in the country, so participants have to hypothesize a situation to answer the questions.

5.5 Conclusion

In conclusion, findings of this study were predominantly compatible with the literature. The overall results showed Lebanese educators' high support of gifted programs provisions and positive attitudes toward giftedness. Most notably, barriers to transforming these attitudes and perceptions to practice were identified. They included the rigidity of the Lebanese curriculum and resource constraints. The outcome of this study suggests the need for specific educational experiences to improve educators' awareness of giftedness conceptions, and consequently provide gifted students with optimal learning experiences. The failure to cater to gifted students in Lebanon may result in limiting their potential and accordingly decreasing their contribution to the society.

In a country such as Lebanon, which values education highly (Bahous & Nabhani, 2008), and is still not providing any formal program for highly able/gifted students (Lebanese Association for Educational Studies (LAES), 2006; Sarouphim,

2010), the results of this study hold promise for positive change in the status quo of gifted education in Lebanon.

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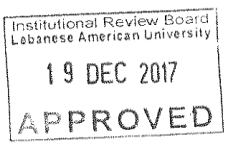
Appendix A

Appendix A

Questionnaire

Table A1. Questionnaire - Section 1					
Please rate how strongly you agree or disagree with the following statements. In answering each question, use a range from (1) to (5) where (1) stands for strongly disagree and (5) stands for strongly agree. Please circle only one response choice per question. Please answer as spontaneously as possible.	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
Gifted students have a high IQ					
Gifted students have a high ability in performing tasks					
Gifted student score in the top 3-5 percentile on standardized (IQ) tests					
Gifted students have a high ability in using language well and creatively for expressing themselves					
Gifted students have a high ability in using good reasoning and understand numeric relationships					
Gifted students have high musical ability					
Gifted students have a high ability in using body-motor skills and physical co-ordination					
Gifted students have a high ability to deal with varied social situations and understandings of others					
Gifted students are highly aware of their own strengths, weaknesses and needs					
Gifted students have a high ability to discriminate among living things, such as plant and animals, and features of the natural world, such as clouds and rock configurations					
Gifted students have an above-average ability in all domains					
Gifted students have an above-average ability in a specific domain					
Gifted students are highly creative					
Gifted students are highly motivated to persist working on a task until completion					



	abolished. (Reverse scored)					
Elitism	Special programs for gifted children have the drawback of creating elitism.					
	Special educational services for gifted children are a mark of privilege.					
	When the gifted are put in special classes, the other children feel devalued.					
	By separating students into gifted and other groups, we increase the labeling of children as strong-weak, good-less good, etc.					
	The gifted are already favored in our schools.					
	Gifted children might become vain or egotistical if they are given special attention.					
Acceleration	Most gifted children who skip a grade have difficulties in their social adjustment to a group of older students.					
	Children who skip a grade are usually pressured to do so by their parents.					
	When skipping a grade, gifted students miss important ideas. (They have holes in their knowledge.)					
	A greater number of gifted children should be allowed to skip a grade. (Reverse scored)					
Self-perceptions	I was or could have been in a gifted program in school.					
	Most of my family and friends consider me gifted.					
	I am gifted.					

	Most of my family and friends are gifted.					
	People consider me gifted.					
	Please indicate your:					
	Years of Experience:					
	0-5					
	6-9					
	10-15					
	15+					
	Educational Level:					
	High School					
	University Bachelors or equivalent					
	Graduate or Post Graduate					
	Other:					
	Have you ever had or were exposed to training or workshops in gifted education?					
	Yes					
	No					
	Please indicate your year of birth:					
	Please indicate your gender					
	Male					
	Female					
	Other					

Appendix B

Semi Structured interview questions

1- What are your views on giftedness? In other words, what do you think giftedness is?
2- In your opinion, what are the characteristics of gifted students?
3- How does your school cater to the needs of outstanding students?
4- Do you think that special programs for gifted students should be offered in schools in Lebanon?
5- Does your school offer any special services for gifted students? If yes, please describe these services.
6- If not, what are the reasons these services are lacking at your school and/or schools in Lebanon in general?
7- In your opinion, what would be an ideal program for gifted students?

Appendix C
IRB Approval Letter

LAU
الجامعة اللبنانية الأميركية
Lebanese American University
Institutional Review Board (IRB)

لجنة الأخلاقيات

NOTICE OF IRB APPROVAL – EXEMPT STATUS

To: Ms. Dana Al-Zoubi
Advisor: Dr. Ketty Sarouphim McGill
School of Arts & Sciences

APPROVAL ISSUED: *19 December 2017*
EXPIRATION DATE: *NA*
REVIEW TYPE: EXEMPT

Date: December 19, 2017
RE: ***IRB #:*** *LAU.SAS.KS6.19/Dec/2017*
Protocol Title: *Teachers' and Principals' Perceptions of Giftedness and Gifted Programs*

Your application for the above referenced research project has been approved by the Lebanese American University, Institutional Review Board (LAU IRB). This research project qualifies as exempt under the following category:

B. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:

(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and

(ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

This approval is limited to the activities described in the Protocol Exempt Application and all submitted documents listed on page 2 of this letter. **Enclosed with this letter are the stamped approved documents that must be used.**

APPROVAL CONDITIONS FOR ALL LAU APPROVED HUMAN RESEARCH PROTOCOLS - EXEMPT

LAU RESEARCH POLICIES: *All individuals engaged in the research project must adhere to the approved protocol and all applicable LAU IRB Research Policies. PARTICIPANTS must NOT be involved in any research related activity prior to IRB approval date or after the expiration date.*

EXEMPT CATEGORIES: *Activities that are exempt from IRB review are not exempt from IRB ethical review and the necessity for ethical conduct.*

MODIFICATIONS AND AMENDMENTS: *Certain changes may change the review criteria and disqualify the research from exemption status; therefore, any proposed changes to the previously approved exempt study must be reviewed and approved by the IRB before implementation.*

NOTIFICATION OF PROJECT COMPLETION: *A notification of research project closure and a summary of findings must be sent to the IRB office upon completion. Study files must be retained for a period of 3 years from the date of notification of project completion.*

IN THE EVENT OF NON-COMPLIANCE WITH ABOVE CONDITIONS, THE PRINCIPAL INVESTIGATOR SHOULD MEET WITH THE IRB ADMINISTRATORS IN ORDER TO RESOLVE SUCH CONDITIONS. IRB APPROVAL CANNOT BE GRANTED UNTIL NON-COMPLIANT ISSUES HAVE BEEN RESOLVED.

BEIRUT CAMPUS
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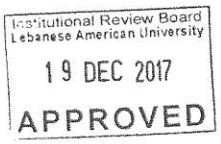
If you have any questions concerning this information, please contact the IRB office by email at irb@lau.edu.lb

The IRB operates in compliance with the national regulations pertaining to research under the Lebanese Minister of Public Health's Decision No.141 dated 27/1/2016 under LAU IRB Authorization reference 2016/3708, the international guidelines for Good Clinical Practice, the US Office of Human Research Protection (45CFR46) and the Food and Drug Administration (21CFR56). LAU IRB U.S. Identifier as an international institution: FWA00014723 and IRB Registration # IRB00006954 LAUIRB#1



Dr. Costantine Daher
Chair, Institutional Review Board

[redacted]

DOCUMENTS SUBMITTED:

IRB Exempt Protocol Application	Received 13 December 2017
Letter to School	Received 18 December 2017
Consent form for Interview	Received 13 December 2017
Semi Structured interview questions	Received 13 December 2017
Consent form for questionnaire	Received 13 December 2017
Questionnaire	Received 13 December 2017
NIH Training – Ketty Sarouphim	Cert. # 1961841 Dated (21 January 2016)
NIH Training – Dana Al-Zoubi	Cert.# 2424559 Dated (24 September 2017)

Appendix D
Sample of the Email Sent to Principals

Subject: An Invitation to Participate in Giftedness Study (LAU Research Project)

Dear Mr/ Ms..,

My name is Dana Al Zou'bi. I am conducting a study for the fulfillment of the requirements for an MA in education under the supervision of Dr Ketty Sarouphim-McGill, at the Lebanese American University.

The purpose of this email is to kindly request your cooperation in participating in my study entitled "Teachers' and Principals' Perceptions of Giftedness and Gifted Programs". You have been chosen to be part of my sample.

This research aims to investigate principals' and elementary teachers' perceptions of giftedness and gifted education in Lebanese private schools.

As a participating principal, you will be sent 7 interview questions to which you can respond by either emailing me your answer at your own convenience or should you prefer to be interviewed, I could conduct the interview through Skype or a WhatsApp call at a convenient time for you.
Data collection from teachers consists of surveys that I can either send to the participating teachers directly (for this I will need their emails), or I can provide you, the principal, with a link to the survey that you are kindly requested to forward to your elementary teachers.
The following is the link for the questionnaire to be completed by teachers:
https://iastate.qualtrics.com/jfe/form/SV_2uE82pzOBJs3x7D

Your participation is highly appreciated. I know that my request might be an imposition on your already very busy schedule, but without your participation this study cannot be carried out, and given that I am currently outside Lebanon, data collection through electronic means is my only choice.

If you choose to be part of the study, kindly find the attached documents, stamped by the LAU IRB department, that include a letter from Dr Ketty Sarouphim, the consent forms, samples of the interview questions (for principal) and the questionnaire (for elementary teachers).

Thank you for your consideration. Looking forward to hearing from you, I remain
Sincerely yours,
Dana Al-Zou'bi
MA in Education candidate

Appendix E

Consent to participate in an Interview
Teachers' and Principals' Perceptions of Giftedness and Gifted Programs

I would like to invite you to participate in a research project. You are being asked to complete a short interview. I am a student at the Lebanese American University and I am completing this research project as part of fulfillment of MA in Education. This interview aims to investigate Lebanese principals' perceptions of giftedness and gifted programs

The information you provide will be used to enhance and improve our understanding of giftedness. Completing the interview will take 20 – 30 minutes of your time.

By continuing with the interview, you agree with the following statements:

1. *I have been given sufficient information about this research project.*
2. *I understand that my answers will not be released to anyone and my identity will remain anonymous. My name will not be written on the questionnaire nor be kept in any other records.*
3. *I understand that all responses I provide for this study will remain confidential.* ***When the results of the study are reported, I will not be identified by name or any other information that could be used to infer my identity.*** *Only researchers will have access to view any data collected during this research however data cannot be linked to me.*
4. *I understand that I may withdraw from this research any time I wish and that I have the right to skip any question I don't want to answer.*
5. *I understand that my refusal to participate will not result in any penalty or loss of benefits to which I otherwise am entitled to.*
6. *I have been informed that the research abides by all commonly acknowledged ethical codes and that the research project has been reviewed and approved by the Institutional Review Board at the Lebanese American University*
7. *I understand that if I have any additional questions, I can ask the research team listed below.*
8. *I have read and understood all statements on this form.*
9. *I voluntarily agree to take part in this research project by answering the research questions.*

If you have any questions, you may contact:

Name (PI)	*Phone number*	*Email address*
Dana Al Zoubi	*+515 460 2380 (via whatsapp)*	*Dana.alzoubi@lau.edu*

If you have any questions about your rights as a participant in this study, or you want to talk to someone outside the research, please contact the:

IRB Office,
Lebanese American University
3rd Floor, Dorm A, Byblos Campus
Tel: 00 961 1 786456 ext. (2546)

Appendix F

Consent to participate in a Questionnaire
Teachers' and Principals' Perceptions of Giftedness and Gifted Programs

I would like to invite you to participate in a research project by completing the following questionnaire/ survey. I am a student at the Lebanese American University and I am completing this research project as part of fulfillment of MA in Education. The purpose of this questionnaire aims to explore teachers' perceptions of giftedness and gifted programs.

Completing the questionnaire will take 15- 20 minutes of your time.

By continuing with the questionnaire, you agree with the following statements:

10. I have been given sufficient information about this research project.
11. I understand that my answers will not be released to anyone and my identity will remain anonymous. My name will not be written on the questionnaire nor be kept in any other records.
12. ***When the results of the study are reported, I will not be identified by name or any other information that could be used to infer my identity.*** *Only researchers will have access to view any data collected during this research however data cannot be linked to me.*
13. I understand that I may withdraw from this research any time I wish and that I have the right to skip any question I don't want to answer.
14. I understand that my refusal to participate will not result in any penalty or loss of benefits to which I otherwise am entitled to.
15. I have been informed that the research abides by all commonly acknowledged ethical codes and that the research project has been reviewed and approved by the Institutional Review Board at the Lebanese American University
16. I understand that if I have any additional questions, I can ask the research team listed below.
17. I have read and understood all statements on this form.
18. I voluntarily agree to take part in this research project by completing the following survey/Questionnaire.

If you have any questions, you may contact:

Name (PI)	*Phone number*	*Email address*
Dana Al Zou'bi	*+ 515 460 2380 (via whatsaap)*	*Dana.alzoubi@lau.edu*

If you have any questions about your rights as a participant in this study, or you want to talk to someone outside the research, please contact the:

IRB Office,
Lebanese American University
3rd Floor, Dorm A, Byblos Campus
Tel: 00 961 1 786456 ext. (2546)
irb@lau.edu.lb

Appendix G
Template Letter to Schools

LAU
الجامعة اللبنانية الأميركية
Lebanese American University

Chartered in the State of New York

To: [School Name]
[Address]
[Beirut, Lebanon]

December 22, 2017

Object: Consent to collect data for an LAU research study entitled "Teachers' and Principals' perceptions of Giftedness and Gifted Programs".

To whom it may concern,

I am writing to request permission for my student to be able to collect data from your school. The study involves interviewing the principal and asking 10-15 teachers to complete a questionnaire. Dana AlZoubi is an MA student at the Lebanese American University (Department of Education) and would be contacting you via email in order to complete a research project related to examining teachers' and principals' perceptions of giftedness and gifted programs.

The data collected, which is based on a (20-30 min) semi structured interview with principals (see attached questions) and a (15-20 min) questionnaire for teachers (link to survey) will be kept anonymous and will not be used for any other purpose.

Please do not hesitate to contact me should you need any additional information.

If you have any questions about this study, or you want to talk to someone outside the research, please contact the: IRB Office, Lebanese American University 3rd Floor, Dorm A, Byblos Campus. Tel: 00 961 1 786456 ext. (2546)

Sincerely yours,
Ketty Sarouphim- McGill

Ketty Sarouphim- McGill,
Associate Professor
School of Arts and Sciences
Department of Education
Tel. +961 1 786456 ext. 1496
P.O.Box: 36-Byblos, Lebanon

Institutional Review Board
Lebanese American University
19 DEC 2017
APPROVED

Acknowledgement

Name:

Signature:

Date:

Appendix H

Transcribed Interview Responses

Interview Response A

1- Giftedness is a student who learns differently, has different skills and ability to learn. Different skills than the mass, thus any kind of people different from the mass will need different techniques.

2- Characteristics of gifted, if they are not spotted or detected, they will be a bit louder than others, withdrawn, annoying or disruptive. If they do not get the message across, they get bored or if they do not feel belonging then they tend to use negative attention seeking behaviour. So they either become sad, depressed or they become talkative and disruptive.

3- Well, this year I enrolled a student whom I suspect to be gifted student, he is too depressive with high academic achievement,he has ability beyond classmates of his age.

   a- He is put in small groups because in his classroom he won't get the right differentiation.

   b- A bit of acceleration was done where we provide him with challenging questions/ brainteasers / assignments where he can connect things.
   He is almost 13, this allows him to explore things like sex so we make him involved in projects like assembling a computer by the end of the year.
   If we had at our school a technology teacher then he will be part of the whole but NOW he takes it all as he is putting all the parts together.

4- Definitely do because of the boom of learning difficulties this should be done.
The future of the gifted students will be learning difficulties if they were neglected and undetected or undealt with properly, he will not use his energy so he will have gaps and this will lead to the LD status.

5- No, in the future

6- In Lebanon because education is eminent (more advanced) , superior in the Arab world but it is still conventional, not outside the box, we are still in the community that education is inside the box . Elementary for example, should be taking project based learning which is not based in the school.
There are no educational reforms in in Lebanon, since we are there, so there is no progress in education so that is why we don't know how to cater for the gifted students (who learn unconventionally)

7- First of all for the program to be ideal, gifted students should not be in classes alone. Cooperative learning style, and independent learning + self learning and technological tools (like ipdas) accelerate things for gifted children and customize it for them.
On the other hand, learning difficulties pull down the other students whereas gifted students pull them up. So they will be role model for achievement / egocentric.
An ideal program thus will be a support program and a resource room where you can send gifted students to for more challenging tasks.

Interview Response B

1- When the skills of students are more developed than children of his age.

2- Talented/ smart/ not organized / social

3- We have special education for students that are lacking behind, but for the gifted students on a higher grades we provide them with scholarships and put them on honor lists.

4- Definitely, if not well developed and organized programs then differentiation in classrooms.

5- No we don't

6- There are two main reasons

a- Demands of the Lebanese curriculum, the pressure and the time restrictions for completing the curriculum on specific time. Also, we are guided by the curriculum to focus on different areas and neglect others.

b- You need extra resources / physical/ space/ stations/ educational games / good quality / technological tools like ipads for example.

7- An ideal program will be curriculum core standards based on differentiated objectives

Levels/ values (respect…) integrated in class. Like IEP for lacking behind IEP for gifted.

Interview Response C

1. Giftedness is a higher intellectual ability in a child. A child could be gifted in one specific area as mathematics or talented or gifted in most subject area. It could be definition of a child of high IQ.

2. Gifted child means he is intellectual, creative, artistic, and has leadership skills.

3. By motivating them all the time, create or used different learning and teaching strategies. By providing constant positive feedback to promote their performance. Asking teachers to create different strategies for the gifted students to be shown. Try to give them extra work or projects.

4. Definitely, especially in 21 century and the empowerment of technology.

5. Honestly, we don't have a special program and unfortunately am new in this school but am trying to implement this.

6. Simply the work of other principal and as I mentioned before am new.

7. Creating a healthy learning environment and trying to find a program that may be implemented in our school specifically. Honestly I will try to research on this topic and try to make changes at my school.

Interview Response D

1.) Giftedness is when a child demonstrates natural *potential* that is clearly above the average potential. This can be intellectual, creative, social, and even physical.
2.) The characteristics displayed by the gifted depend in large part on the type of profile of the child and the environment(s). The child can be angry, bored, precocious, conforming or disruptive, approval-seeking, "weird." They can be high-achievers within the school system or they may be inconsistent with their work or they may be quite self-directed and independent. There is no single presentation of characteristics for those who are termed "gifted."
3.) We are moving toward Universal Design for Learning to cater to the needs of all children as a matter of course. In addition, our school has a department of special rights which focuses on the rights of children who require special attention and arrangements in one form or another. Our school has structured individualized programs around gifted children in the past. Essentially, while the department focuses largely on learning difficulties, it could be termed a "department of learning diversity" that could also provide the supports and challenges for gifted children, should we have any.
4.) I think that all children are entitled to educational programs that help them reach their potential. There is some debate about gifted programs failing to recognize certain profiles of gifted children and whether or not gifted and talented programs detract from providing quality education for all children. I believe that as children with special educational rights, these children should be provided for with care and by those with knowledge in the field, but what form that takes is need not necessarily be standardized across schools or be a separate program per se.
5.) Please see my response to question 3.
6.) Please see my response to question 3.
7.) I am not qualified to offer an opinion on the form the ideal program for gifted children would take. I would defer, most certainly, to those who have studied this area of education. Whatever form the program takes should take into consideration the profile the child presents with and the needs for children with that profile. Qualified personnel should be involved in this program, as it is an area of special education, and not just anyone can or should design/deliver this sort of instruction.

Interview Response E

1- Giftedness is excelling in any aspect whether it's academic, skills, personal traits... This is due to hereditary factors as well as environmental factors. The concept of being gifted is not only related to the academic achievement of the student. It also extends to all other aspects.

2- in academic fields, it shows when students are getting high grades and are capable of reaching high order thinking levels in the concepts explained. Gifted students are capable of extending their thinking and knowledge to different contexts maybe not explored by the teacher. In other fields such as critical thinking, personal skills, presentation skills, social skills... a student can also be gifted. This will show in their

ability to perform certain tasks that reflect the acquisition of those skills in an outstanding manner in a way that exceeds the norm/average of the class.

3- our school caters for all levels through inclusion and differentiation techniques. For certain subjects like math, sciences and languages, these subjects are offered in different levels (high, standard, and in certain cases a third level below standard). This way students in higher levels will take more dofficult material which incluses more depth and more details.
- within the same level and in all classes, differentiating instruction takes place by catering to all needs and learning styles.
- some subjects are optional. Studnets who excel in a certain subject would take it to get the maximum out of it.

4- taking gifted students out of their classes is not a good idea. They should stay to ensure a heterogeneous classroom. They can work as helpers. Also, it's a challenge for the teacher as well to cater for their level.
- special programs/clubs may be given afternoon to ensure that those students are improving their knowledge and skills in certain aspects.

5- answered within 4
- some classes for high level students
- some clubs afternoon (specialized clubs)

7- we don't think there's an ideal program due to the complexity of the topic and its various perspectives. Trying to differentiate the classrooms in all subjects and coming up with an inclusion plan at the level of the whole school are the starting point. Then, developing specialized programs for different gifts shall follow.

Interview Response F

1) Giftedness refers to outstanding talents and potentials for performing at remarkably high levels of accomplishment. It’s an inborn strength and natural motivation that the gifted individuals use to do thing that they find satisfying and productive.
2) - Gifted students exhibit high performance capabilities in intellectual, musical and /or artistic areas, and/or excel in specific academic fields.
- They are very curious and may show strong feelings and opinions.

3) In our school, we try to cater for their needs as much as possible. Educators and through differentiated instruction in some subjects take the different levels of abilities into consideration when planning and in classroom implementations. Gifted students are also given opportunities to help their classmates during cooperative learning.
4) Gifted and talented students and those with high abilities need gifted education programs that will challenge them in regular classroom settings and enable them to progress and develop their giftedness.

5) We don't have a special giftedness programs but gifted students are given the opportunity to develop their giftedness, to a certain level, through clubs (journal, drawing, sports, and robotics) and extracurricular activities and performances (media, dance, music, theater, and drawing). Add to this, we have yearly competitions for intellectual and artistic talents.
7) Every student learns best when given the proper learning environment with plenty of creative exposure, proper learning tools, and well trained educators.
An ideal program should provide the children with challenging experiences and allow them to experience the world in a variety of ways. Moreover, the program must encourage healthy social outreach. However, giftedness programs can overwhelm gifted children, so any program should provide these children with positive coping mechanisms.

Interview Response G

1- Giftedness is when a child has a significantly high performance in one area or more.

2- - Extremely sensitive with different social behavior

- Worry about social and political matters and inequalities
- Daydreamer
- Varied range of interests (or extreme emphasis in one area)
- Sets things together in a non-typical way
- Vibrant imaginations
- Rapid learner; grasps concepts quickly
- Excellent memory
- Developed language (word hints, comparisons and abstract ideas)

3- We are working on developing our system in a way to cater to the needs of gifted students, we've been working on it years ago. Currently we provide to the students the mobility, the malleability and the understanding of their emotional needs and extreme behaviors.

On the curriculum level, we still count on the initiative of the teachers to upgrade the tests and requirements and differentiated instructions. But no clear plan is set yet.

4- We do not only think that special programs should be offered in schools in Lebanon, we believe in equity in education. We are an inclusive school, we provide services for under achievers and we are advocates for students with special educational needs no matter what they are (reduce or increase).

5- Not yet.

6- At our school, the services do not exist yet because we are under the pressure of the standardized tests that consume the time and energy of the staff members and students.

The Lebanese society still holds big credit to those tests and finds it difficult to not follow the official curricular standards.

We also have difficulty finding the efficient trainings for our staff in this field of expertise. Time and Finances also count among the boundaries.

7- I believe that an ideal program for gifted students should include:

- Adapted curriculum: limitless accommodations and modifications.
- Differentiated instructions
- Resources
- Malleability
- Psychological support
- Awareness
- Advocacy

Interview Response H

1. Giftedness is a trait(s) and ability (ies) that learners demonstrate in specific areas that are way above their peers'. Giftedness is not limited to academics or school life, it manifests through the learner's personality, attitude, way of thinking creativity, and social, artistic and other attributes.

2. Characteristics do vary according to the area in which learners are talented in:

In general they are:
Extremely motivated and deeply involved in the work
Persistent in completing tasks
Creative and innovative
Curious to learn more
Some manifest Leadership qualities
High critical thinking abilities

3. How does your school cater to the needs of outstanding students?

At school we do care for the needs of outstanding students through:

a- A diversified curriculum that caters students with different abilities and interests.
b- Teachers use different teaching/learning techniques and strategies
c- Lessons are linked to multidisciplinary subjects
d- Resources and textbooks used aim at meeting the needs of individual learners
e- Early finishers are provided with enriched challenging work or free exploration time
f- Introduction of the Gifted and Talented program monitored by the Gifted & Talented coordinator is awaiting her Ph. D defense in the specified domain.

4. Do you think that special programs for gifted students should be offered in schools in Lebanon?

In order to fulfill the needs of learners and to prepare them to become better citizens equipped to meet the challenges of the 21st century, schools must integrate special programs for the gifted students

5. Does your school offer any special services for gifted students? If yes, please describe the services.

a- The school has introduced the Gifted and Talented program monitored by the Gifted &Talented coordinator who is completing her Ph. D in the specified domain.
b- Outstanding students are screened for their significant abilities and provided with challenging tasks
c- Assessment is in the process of being done for few outstanding students

6. If not, what are the reasons the services are lacking at your school and/or schools in Lebanon in general?

The services lacking in schools in general are:

a- Focus on the academic performance rather than individual abilities
b- Lack of expertise
c- Cultural: gifted learners are thought of as being disruptive, unfocused, socially withdrawn…..
d- Lack of awareness both parents and schools
e- Financial issues
f- Official exams limited to certain subject areas and do not evaluate other areas
g- Curricula implemented in schools are tight in time and resources

7. In your opinion, what would be an ideal program for gifted students?
   a- Self-contained programs in schools
   b- After-school clubs
   c- Accelerating learners according to their level if possible

Interview Response I

1. According to my point of view, giftedness is when students demonstrate an outstanding, learning, creative or artistic performance.
They are lucky to be intelligent in class.
2. Gifted students are those whose skills are above average in most of school performance. They do excellent work, they do not need help in their school work, and they can learn themselves. They ask intelligent, precise questions.
They use their effort to reach their goals and this helps them to be speedy in their thinking.
3. At our school we do not cater and don't have special programs to enhance their ability.
4. I highly agree with special programs for gifted students, provided that there are teachers who are trained for this task to cope up with their level of thinking.
It is unfair for those students to be placed in a classroom that does not offer special giftedness programs; they will be bored, and unable to develop study skills.
5. Our school is one of the schools in Lebanon that does not offer any special service for gifted students, although I think that gifted students need special education programs that will challenge and enable them to make progress in school that will influence their future positively.

6. Parents in our schools are not able to pay high fees for such programs.
7. There are many programs and useful activities that could help gifted students in the classroom. We should be patient and give them time to express and reflect what is in their minds; at the same time let them work in groups and help others. Engage them in games in the classroom, such as spelling bee and show and tell activities.
Try to find their interest and get them involved and active and move when learning, which will enhance their thinking process.
Allow them to take decision and understand the importance of their decision with assigned expiry date which will stimulate them to finish on time.
I think gifted students are more of quick creative thinkers. To develop this part in them, they should be exposed to activities that develop more their fluency and their abstract thinking.