

Special Educational Need of the Gifted and Talented Students in Saudi Arabia: A Review Paper

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ABSTRACT

Giftedness refers to proficient distinctive intelligent knowledgeable abilities, due to high IQ which possess talent, excellent performance abilities and skill in diverse field of learning. The gifted children's style of learning is quite different as they need special academic, scientific support and input since they are characterized by actively metacognitive thinking skills and learning strategies. Due to the complexities of twice-exceptional gifted students, educators lack the experience in dealing with the unique needs of the gifted students. In Saudi Arabia, there is a need for the government to restructures the educational system in order to refine gifted student's talent to their educational needs. This is a review paper aims at reviewing relevant literature on the special educational needs of the gifted and talented students in Saudi Arabia. From the available literature reviewed, the general need for gifted and talented students identified are cognitive needs, social and emotional needs, psychomotor needs, affective and intuitive needs, the needs of diverse gifted populations. The Study also identified the four major special educational needs of the gifted and talented students which comprises; the need for challenging education, need for true peers, the need for the responsive parenting, the need for adult empathy.

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INTRODUCTION

Giftedness is asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm (Osborn, 1996). This asynchrony increases with higher intellectual capacity, the uniqueness of the gifted renders them particularly vulnerable and requires modification in parenting, teaching and counselling in order for them to develop optimally (Boland & Gross, 2007). Gifted students differentiate from their peers cognitively in terms of their exceptional speed, learning depth and their interests. These students need comprehensive educational opportunities and services which cannot be supplied with normal programmes (Renzulli & Reis, 1985; Csikszentmihalyi & Robinson, 1986).

In many countries across the globe under the umbrella of UN body have declared basic education as free and compulsory (Salihu, & Jamil 2015). However, the issues surrounding the education of the gifted and talented children have been clouded by misconceptions which ultimately results in considerable frustration for the gifted children and loss of their talents (Osborn, 1996). Although it has been observed that middle-class parents are often able to provide enriching experiences for their gifted children, provision for the gifted children who are socioeconomically disadvantaged is lagging (Hertberg-Davis & Callahan, 2008). Gifted students should continually utilize their high abilities in order to keep developing their academic skills and their eminent thinking abilities. They should establish their basic cognitive ability in order to prepare themselves for future challenges (Burney, 2008).

Gifted students should have access to learning opportunities that are faster paced and more complex than what is usually available in a regular classroom with students having mixed abilities (Tassel-Baska, 2003). However, if during their school years, gifted students are not provided with a suitable education, they may lack the experience needed to utilize their high abilities (Pajares, 1996). General educational classes consisting of students at the level of mixed ability are relatively lower than gifted students' levels. According to Bloom taxonomy, while a student with average intelligence needs activities related to the application level that can be said to be high level and upper gains (analysis, evaluation, creation) less, the gifted student is more prepared to acquire gains including advanced thinking processes (Gross, 2004).

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In Saudi Arabia, there is a need for the government to restructures the educational system in order to refine student's talent particularly in solving complicated issues in class and outside class in their later life. Many studies concluded that students in Saudi Arabia possess underdeveloped skills in problem solving, analysis and critical thinking. There is no doubt that gifted students are characterized with distinct personalities, yet they at the same time known with social and emotional problems which needs to be explore (Neihart et al., 2002).

The gifted children's style of learning is quite different as they need especial academic, scientific support and input since they are characterized by actively metacognitive thinking skills and learning strategies. They are able to harmonize between the available requirements and appropriate strategies for understanding the knowledge and using it productively and effectively. Besides, they are positive and active in solving different types of problems according to the tasks which are done by them (Renzulli, 2005).

According to Foley-Nicpon, Assouline, & Colangelo (2013), autism spectrum disorders, specific learning disabilities, attention deficit hyperactivity disorder, and emotional disturbances are the categories most familiar to educators due to the profusion of research literature. However, due to the complexities of twice-exceptional gifted students, educators lack the experience in dealing with the unique needs of these children. Therefore, they need education focusing on developing problem solving skills as well as creative and critical thinking skills. This is a review paper aims at reviewing relevant literature on the special educational needs of the gifted and talented students in Saudi Arabia.

RESEARCH METHOD

The methodology adopted in this paper is systematic literature review. A systematic literature review is one of the fundamental step in educational research (Salihu, 2017). Hence, this study adopted and start with the United State Department of Education (2016) definition of gifted students as those with exceptional talent who demonstrate the potential to achieve significantly higher levels of accomplishment compared to their peers. All areas of children's life must be considered: academic, athletic, artistic, and social life. Also, The United Kingdom Department for Education (2016) defined gifted students as having exceptional abilities in subjects such as Mathematics, Sciences, Literature, History, Art, Sports, and Music and who are in the top 1% of these respective groups. Freeman (2010) claims that the most significant characteristic that defines gifted students is their exceptionally high intelligence. Gifted and Talented Students High Order Thinking (HOT) skills, include abstract levels of thinking, exceptional memory, and an inventive and creative approach to solving complicated and sophisticated problems. Kay (2002) and Winner (2000) point to other characteristics, such as great inquisitiveness in various subjects, an autodidactic acquisition of general knowledge and a reach vocabulary. Landau (2000), Millman (2012), Montgomery (2013) and Ziv (2000) add boredom as a prominent characteristic of gifted students during classes which might lead to disruptive behaviours. In summary, these definitions should serve the educational departments to detect these students and to prepare accelerated programmes for them.

Psychologist who work with gifted children are aware that within this group there is a broad range of abilities and a wide variety of talents (Osborn, 1996). Although there are is no single code that defines levels of intellectual giftedness. One suggested set of levels was outline in the Fall, 1994 issue of the newsletter of the Hollingsworth Centre for Highly Gifted Children as presented in table one below;

Table 1: Levels of Intellectual Giftedness

S/ No	Level of Giftedness	IQ Ranges
1.	Mildly Gifted	115 – 129
2.	Moderately Gifted	130 - 144
3.	Highly Gifted	145 – 159
4.	Exceptionally Gifted	160+

Source: Osborn (1996)

The problem with many current intelligence tests (WISC-III Stanford-Binet Intelligence Scale, IV) is that they do not discriminate well between moderately, highly, and exceptionally gifted children (Osborn, 1996). Researchers have found that the Stanford-Binet Form L-M to be the most useful test for this purpose. The concept of different levels intellectuals' ability with attendant differences in cognitive, affective and emotional functioning is basic to understanding gifted children (Osborn, 1996).

1) Gifted Students in Saudi Arabia

According to Maajeeny (1990), the first attempt to develop mental testing system was between 1875 and 1970 this motivated Saudi Arabian to pay attention to the talented and gifted students. Saudi Arabia uses the measurement system to explore difference system for the development of gifted students programs in the country. Like other countries, the Kingdom of Saudi Arabia utilized the tools of measurement and made rapid progress in the education of gifted students. The government of Saudi Arabia took scientific and tangible steps to standardize the education system gradually for the gifted students. Since 1902 when the kingdom was founded, that paved way for the political and educational governance to be constituted. By the year 1969 educational policy was enacted for gifted and the talented students, thus since then the process of the development of gifted students programs has continued up till date (Sternber, 2005).

2) Gifted and Talented Care Programs

Saudi Arabian government has drafted an organised strategic plan for both male and female school teachers to give a special attention to the gifted and the talented students. The teachers were specially trained to identify gifted students to be provided with special educational service based on a unique guidelines. Among the responsibilities of these specially trained teachers is to offer special facilities and teaching aids to the gifted students since they suffer in compliance in regular classes due to higher order thinking abilities. Thus, they may lose their talent and suffer from mental laziness due to non-availability of extra facilities for the gifted students (Ministry of Education, Saudi Arabia, 2008). The Ministry of Education (2008), formulated the following objectives to the gifted and talented students.

- 1) Provide special care and extra coaching, which would develop them promote their talents and creative thinking
- 2) Provide highly qualified and experienced teachers for gifted students
- 3) Provide numerous and multifarious educational opportunities to all students in order to develop and refine their talents

The Ministry of Education, Saudi Arabia (2008), set the following expected outputs.

- 1) Spread maximum awareness regarding types of care and talent
- 2) Promulgate accurate and correct concept of giftedness and gifted students
- 3) Provide appropriate care to the gifted students in order to develop their talents and create scientific approach amongst the talented students
- 4) Create coordination with the parents of the gifted students in order to provide extra service and boost up their research oriented approach
- 5) Integrate the contents of curriculum for public education
- 6) Provide conducive environment which helps broaden creativity, innovation and high order thinking abilities.

NEEDS OF STUDENTS WHO ARE GIFTED

Researchers revealed that the characteristics of a gifted child vary as much as differences among other children (Cornell, 1992; Tuttle & Becker, 1980). Those characteristics, according to other researcher's gifted children require programs that meet their social, emotional, creative, and physical needs as well as their cognitive desires (Reis & Renzulli, 2010). Traditionally, there are certain attributes that appear in the majority of gifted individuals. It is important to note that not every gifted individual will have all of these peculiarities.

1) *Cognitive Needs*

Gifted children as those children identified at the preschool, elementary and secondary level as having demonstrated potential abilities of high performance capability and needing differentiated or accelerated education or services. By virtue of the definition, the principle characteristic of gifted students is that they are more advanced cognitively than their chronological peers (Song & Porath, 2005). With some exceptions, the majority of gifted students have advanced language abilities. This means they usually procure a large working vocabulary and knowledge of a wide variety of topics. Typically, they can grasp abstract concepts at an earlier age than an average child. Often, having advanced language skills signifies early development of writing skills.

Mathematically gifted children likewise begin learning math skills at an earlier age than do their chronological aged peers. Students with superior art skills also appear to have instinctive artistic abilities and have superior visual memories as pointed out by Yun, Chung, Jang, Kim, and Jeong, (2011). Musically gifted students may begin as early as age one or two to develop a deep appreciation for music. However, the young precocious child may find their lesser advanced fine motor skills to be a hindrance to their rate of desirable progress (Cukierkorn et al, 2007).

Moreover, Tieso (2003) revealed the single most common trait of gifted students was their persistent motivation. The combination of motivation, insatiable curiosity, and advanced learning skills often leads to astounding accomplishments. Again, particularly with this characteristic, not all of these traits will manifest themselves in every gifted individual. The ability to think quickly and see relationships differently than their average peers can be evident in the superior sense of humour many advanced children possess. Plucker and Callahan (2008) described gifted student humour as an occasion of pleasure that results from the opportunity to create it. Due to the internal desire to challenge themselves, the opportunity to add humour provides a stimulation for these students. Such a sense of humour will require the patience of teachers and parents

2) *Social and Emotional Needs*

Early research by Hollingworth (1942) first mentioned the difficulties of social adjustment for gifted students. In her research, students with an IQ score between 125 and 155 adjusted satisfactorily with their environment, while those above an IQ of 170 had difficulty. This was later collaborated by Howard-Hamilton (1994) who revealed that the majority of gifted students were no different socially than their average peers. Studies (Hollingworth, 1942; Janos et al., 1985) discovered that children who felt themselves to be far more intelligent than their peers were more worried about being socially accepted than other gifted students. The affective factors that were revealed more commonly among highly gifted students were emotional excitability and high sensitivity. Overall, gifted youth were just as socially adjusted as were typical children. However, gifted scholars becoming accustomed to high praise can lead to high expectations and perfectionism. When such a child does not meet those expectations, frustrations and feelings of ineptness are manifested, usually through underachievement.

According to Vialle, Heaven, and Ciarrochi (2009), social and emotional needs also surface in school when no gifted services are provided. In such settings, gifted students feel more alone and sadder than their non-gifted peers. In an effort to identify with classmates, gifted students may become underachievers. Olszewski-Kubilius and Limburg-Weber (1999) found that academically gifted students who had peers with whom to share their interests and aspirations were better able to cope with negative peer pressure. Siegle (2015) validated the need for gifted students, especially the profoundly gifted, to interact with students with similar abilities. By interacting with students of like mindedness, gifted children were less likely to develop social problems.

3) *Psychomotor Needs*

Early language and thought development are usually the first identifiers of precocious youth (Plucker & Callahan, 2008; Van Tassel-Baska, 2005). For gifted children, mental development outpaces their physical development. Advanced learners continually seeking cognitive input find daily activities with their age peers to be unfulfilling. Hence, precocious youth will seek the companionship of those who have a similar mental age. Hertberg-Davis and Callahan (2008) described gifted children as those who often seek the companionship of adults for conversation or playing games. Maslow (1943) determined that a person can gain access into a social network where their basic needs can be met. The social group can assist the child in

meeting the psychological need to belong. Once the basic needs are met, a person is more motivated toward growth and development or self-actualization. Acceleration becomes an appropriate method of educating the gifted and talented. Kulik (1992) reported that critics of acceleration felt children were not physically mature enough to be advanced. Standardized achievement tests showed that accelerated students outperformed non-accelerated peers of the same age and ability.

The desire for more cognitive input or a fierce curiosity is manifested in gifted students through high levels of energy and intensity, particularly in the creatively gifted (Plucker & Callahan, 2008). Other than in construction of analogical mathematical problems, the research of Klavir and Gorodetsky (2011) demonstrated how gifted students can be more flexible, appropriate, elaborative, and original than their regular classroom peers. Baer and Kaufman (2005) reported that there were many creativity programs for gifted students, yet the common theme was the emphasis of divergent thinking. Without lessons in a broad spectrum of divergent creativity, students could not transfer their creative thinking skills from one task to another.

4) *Affective and Intuitive Needs*

Creativity transcends several domains including spirituality. Students of a creative writing class many identified as gifted, produced compositions that contained mystery, reverence, and transformative energy (Fraser, 2003). Such spiritual insights were well beyond the knowledge of their regular classroom peers. By allowing gifted children an opportunity to express themselves through writing, students were able to tap into their inner selves and reveal emotional issues that were important to them. Such a process led to assisting in conflict resolution and emotional pain relief. Lovecky (1992) described these creative thinkers as divergent thinkers. Lovecky reported that these creative and original children tend to fantasize much of the time, provide answers that are not typically the first thoughts of others, and are absent minded, disorganized, and intuitive. Such students are interested in following new ideas to see the outcome, discovering how things work, and visualizing things holistically (Lovecky, 1992). The same levels of energy and intensity that can be used for the benefits of gifted children can also be detrimental (Baer & Kaufman, 2005; Plucker & Callahan, 2008). Often, being creative presents itself as defiant behaviour toward established norms. Such individuals may be perceived as having a mental illness (Kaufman, 2001). When these children are denied the opportunity to creatively express themselves, such students can become at risk for mental illnesses. Experts such as Kaufman, (2001) pointed out that the nurturing of such gifts at an early age led to the accomplishments of creative and eminent adults. Other researchers such as Kaufman, (2001); Klavir & Gorodetsky (2011) stated it is imperative that creative traits be nourished. When allowed to flourish, students find themselves more motivated and satisfied (Boazman, Sayler, & Easton-Brooks, 2012; Fraser, 2003; Kaufman, 2001; Reis & Renzulli, 2010).

5) *The Needs of Diverse Gifted Populations*

Cross (2013) stated that in order to identify all of the potentially gifted students in the United States, educators need to move beyond their own conceptualization of giftedness in order to help the less privileged. While numerous identified gifted students come from financially wealthy families, countless others go unnoticed without appropriate identification protocol being in place. Research by Foley-Nicpon, Assouline, and Colangelo (2013) pointed out that while twice-exceptional students are gaining increased recognition in literature, few educators outside of gifted education understood the needs of these children. Coleman and Shah-Coltrane (2015) revealed that since 1974 progress has been made in reaching the underrepresented students in gifted and talented programs. However, there are still discrepancies between racial access to challenging curriculums, programs, and extracurricular activities. Schools serving high populations of minority students offer fewer advanced courses, and gifted and talented programs. Such schools have difficulty attracting qualified teachers, furnishing adequate facilities, providing the latest technology, supplying quality education materials, and maintaining sufficient funds for a sustainable education system such as the lesson we derive from the COVID 19 scenario (Muhammad, 2020) As a result, black students are less likely than their white peers to enroll in challenging courses (Coleman & Shah-Coltrane, 2015). However, this challenges could be addressed with a right leadership framework in a particular education system (Salihu, 2019).

Special Educational Need For Gifted Student

First there is need for education to be fitted to the child's intellectual level and areas of talent. Second, there is the need for the child to find "true peers" that is other children of similar ability and age. Third, there is need for an unusually responsive environment, as the child at high promise also requires extra ordinary targeted input for the full realization of high potentials. Last, there is the need for professionals who understand the accelerated developmental path of these children and who can respond to their, at times, accelerated and unusual emotions need (Gross, 1993; Lovecky, 1994). These four major special educational needs of the gifted students are itemized and discussed in the subsequent section.

1) *Need for Challenging Education*

In a longitudinal educational study of gifted children receiving a common accelerated and enriched curriculum (Hollingworth, 1942). It was found that speed and complexity of learning increase as a function of the child's educational level. Work in the national talent searches and in other longitudinal development research has extended these findings. However, current educational practice has not kept pace with the research and Department of Education report that "Gifted and talented elementary school students have mastered from 35 to 50 percent of the curriculum to be offered in five basic subjects before they begin the school year." It also reports "Most regular educational classroom teachers make few, if any provisions talented students. Educators point out that the teaching techniques and aims advocated for gifted students, such as critical thinking, creative writing, and independent research projects, should prevail in all classrooms. However, classroom teachers, faced with ever-increasing classroom size are not equipped to provide individualized curriculum at many different levels simultaneously (Osborn, 1996). Henceforth, in order to achieved inclusive global education, these issues must be given the kind of attention they deserve (Salihu & Ramadneh, 2015).

2) *Need for True Peers*

At the higher levels of ability children have fewer opportunities for forming friendships with children of similar interests. The younger and less mobile, the more acute the problem. (Orsmond, Krauss, & Seltzer 2004). Terman (2005) Understood this when he wrote about the most extreme example of this problem. In interviews, children and adolescents themselves speak openly of the need to be with others who share their interest and abilities of the need to be accepted rather than rejected for their talents and of the strain of minimizing their talents in order to protect the feelings of others (Torrance, 2018). Ability tracking and special programs do not fit well within the current educational focus on cooperative learning and classroom inclusion, however, many gifted children have described the social ease and acceptance they experience when they are placed in programs that include other gifted children (Jolliffe, 2007). While "True Peers" for gifted children can often found in special education programs outside the public schools, parents most often assume the responsibility of finding these programs for their children.

3) *The Need for the Responsive Parenting*

The myth that gifted children have pushy parents has many negative effects. It causes professionals to doubt the truth of information supplied by parents to question parental motivations and to minimize the significance of parental concerns (Webb, Gore, & Amend, 2007). The myth causes teachers to limit the extent of parental participation and to deny the validity of parental reports. Researchers, however have demonstrated that parents are actually quite good at identifying exceptional development in toddlers, pre-school children and school children (Gottfried, Gottfried, Bathurst, and Guerin 1994; Gross, 1993). In a study conducted during one of the regional talent searches, parents were found to be as good as standardized test in predicting which seventh grade students would do well on the final exams. In addition to their roles as observers and reporters, parents have been identified as exceptionally important in the development of gifted school children and unusually talented young adults (Gottfried et al., 1994). Most people assume that parents of gifted children provide many enrichment opportunities. In addition the research shows that gifted children make more requests and demands for more services, thus triggering parental involvement

4) *The Need for Adult Empathy*

Highly and Exceptionally gifted children tend to think in qualitatively different ways from more modestly gifted children. Among their qualities are a tendency to elaborate the simple to think precisely, to simplify the complex, to remember with unusual clarity, and to reason abstractly at an early age (Jackson,

Moyle, & Piechowski, 2009). For example they struggle with abstract ideas such as the meaning of life and death, moral and ethical issues at an earlier age than most children. They can have strong emotional reactions which require sensitive adult responses and understanding. These highly and exceptionally gifted children, sensitive to social nuances and quick to analyse events can construct interpretations of events that are both sophisticated and incorrect. Adults need to prepare to follow the minds of these children to unexpected places if they are to truly understand and guide them (Osborn, 1996).

CONCLUSION, RECOMMENDATIONS and LIMITATIONS

This is a review paper aims at reviewing relevant literature on the special educational needs of the gifted and talented students in Saudi Arabia. The gifted children's style of learning is quite different as they need special academic, scientific support and input since they are characterized by actively metacognitive thinking skills and learning strategies. Due to the complexities of twice-exceptional gifted students, educators lack the experience in dealing with the unique needs of the gifted students. In Saudi Arabia, there is a need for the government to restructures the educational system in order to refine gifted student's talent to their educational needs. From the available literature reviewed, the general need for gifted and talented students identified are cognitive needs, social and emotional needs, psychomotor needs, affective and intuitive needs, the needs of diverse gifted populations. The Study also identified the four major special educational needs of the gifted and talented students which comprises; the need for challenging education, need for true peers, the need for the responsive parenting, the need for adult empathy. Conclusively, it is recommended that the Ministry of Education, Saudi Arabia should put into consideration these special educational needs of the gifted children as identified while designing new policies and programs for the gifted students.

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