Athens Journal of Education 2022, 10: 1-16
https://doi.org/10.30958/aje.X-Y-Z

The Influence of Gifted and Talented Programs on Students' Self-concept

By Ghina Kalaji[*] & Nadera Alborno[±]

The purpose of this research is to explore the influence of high school gifted and talented (GT) programs on students' self-concept from the students' perspectives in the UAE. A qualitative, exploratory, interview-based study was employed to answer the following question: How gifted and talented programs influence students' self-concept? Data were collected using semi-structured interviews. Ten GT students from grades 8-12 were interviewed from three different GT programs in UAE schools. Analysis revealed that students exhibited positive self-concept in three dimensions: general, academic, and social. The GT programs in the UAE seem to influence students' self-concept positively by nurturing their strengths, valuing their efforts, developing their skills, and emphasizing their future roles in the community.

Keywords: self-concept, BFLPE, acceleration, enrichment, gifted and talented

Introduction

Parents and educators are often concerned about gifted and talented (GT) students' academic progress and many researchers seem to focus on the development of their creativity. However, we need to hear those students' voices and understand their perspectives. GT students are often viewed as the brightest, smartest, and highest achievers, yet how do these students perceive themselves?

There is a plethora of research conducted on GT students' self-concept that is how a person perceives oneself influenced by different factors (Bain & Bell, 2004; Colangelo, Kelly, & Schrepfer, 1987; Hoge & Renzulli, 1993), and a variety of models are explored to explain how GT students view and perceive themselves. That is, taking in consideration their accelerated development academically, psychologically, and emotionally. Also, different studies demonstrated various effects of GT programs on students' self-concept (Cunningham & Rinn, 2007; Fiddyment, 2014; Hertzog, 2003). What happens when GT students are enrolled in special programs with alike students and how this is reflected in the development of their self-image are important points to explore.

Purpose and Research Questions

The purpose of this study is to explore the influence of GT programs on students' self-concept from the students' perspectives. There are several facets to be explored such as the influence of the GT programs on students' general,

[*]Graduate Student, American University in Dubai, UAE.
[±]Associate Professor, American University in Dubai, UAE.

academic, and social self-concepts. This study is an opportunity to examine students' experiences to reveal: how gifted and talented programs influence students' self-concept in the UAE?

Significance

In many similar studies (Cunningham & Rinn, 2007; Dai, Rinn, & Tan, 2013; Preckel, Rach, Scherrer, 2016), quantitative methods such as Analysis of variance (ANOVA) and Likert-type scale were applied to measure the influence of various GT programs on students' self-concept. The self-concept literature is packed with studies applying self-report questionnaires such as: Self-Description Questionnaire II, developed by Marsh; however, few studies have explored deeper by employing interviews to find out more about students' perceptions about themselves and how they develop their self-concept. As a result, a qualitative approach was employed to explore the students' thinking process and how they perceive the influence of being enrolled in GT programs on their self-concept's various facets.

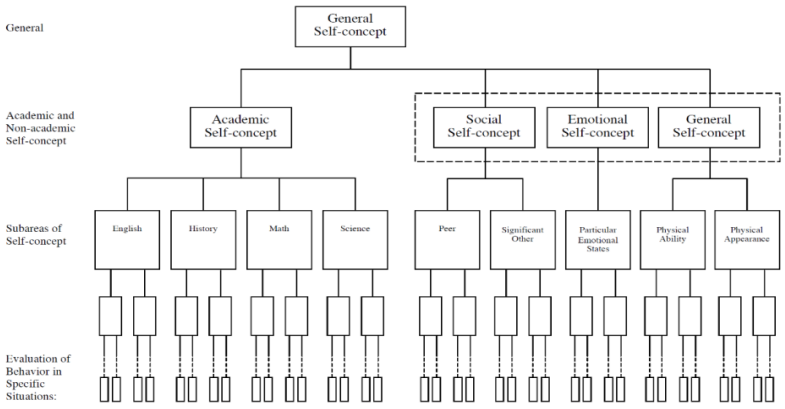
Literature Review

Understanding Self-concept

In broad terms, self-concept is a person's perception about oneself. Shavelson, Hubner, and Stanton (1976) in their attempt to integrate different self-concept definitions, concluded that the perceptions we hold about ourselves are formed through our experiences with our environment and are influenced by reinforcements and significant others.

Prior to 1980, self-concept researchers noted the need for a theoretical model and appropriate measurement instruments. To address this need, Shavelson, Hubner, and Stanton (1976) reviewed existing research, theories, and instruments and introduced their initial hierarchical model of self-concept (Figure 1).

Figure 1. Model of the Structure of Self-concept



Source: Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretation. *Review of Educational Research, 46,* 407-441. Reprinted by permission.

Seven critical features comprise the foundation of this model. A first feature is that self-concept is organized and structured allowing a person to categorize the different information he/she holds about him/herself and connect the categories to one another. A second feature is that self-concept is multifaceted. Figure 1 shows how self-concept has two main facets: academic and non-academic (Social, Emotional, General). Those facets reveal the categorization system adopted by certain individuals or shared by a group. A third feature is that self-concept is hierarchical. That is, general self-concept is divided into two main categories: academic and non-academics and both are further divided into more categories such as subject matters, peers, and significant others. Then, each category such as subject matter is further divided into specific areas. A fourth feature is that general self-concept is stable, and it requires many situation-specific instances that are inconsistent with general self-concept to change. For example, getting a low grade in a math exam might affect the self-concept at math level. However, it will not change the general self-concept. A fifth feature is that as individuals develop from infancy to adulthood, self-concept becomes multifaceted and more structured. That is, infants do not differentiate themselves from their environment. As they grow up and learn from their experiences, they tend to construct their own conceptual framework. A sixth feature is that self-concept is descriptive and evaluative. For example, one can describe him/herself (I am happy) and evaluate him/herself against an absolute standard or against peers' performance. A seventh feature is that self-concept can be differentiated from other theoretically related constructs such as academic achievement (Shavelson, Hubner, & Stanton, 1976).

Gifted and Talented Educational Programs

Various educational programs were designed to meet GT students' needs in different educational systems. Ability grouping, acceleration, and enrichment are examples of these programs. In many systems, there is a mix of multiple strategies. Hence, there is no clear cut in defining each program in the literature. Those strategies are not only implemented in fully dedicated GT in-school programs, they can be also implemented in summer schools/programs.

Ability Grouping

In general terms, ability grouping implies grouping students for instruction by ability to reduce the heterogeneity and construct homogenous groups. Ability grouping created controversy in the literature and researchers did not agree on its definition. Slavin (1987; 1990; 1991) did not have a clear definition for the ability grouping and included many types such as: ability-grouping class assignment, tracking, Joplin Plan (between-class grouping), and many other types. He concluded that there is no evidence to support the use of ability grouping for students generally (Slavin, 1987) and for gifted and talented students specifically (Slavin, 1991).

Fiedler, Lange, and Winebrenner (1993) argued that ability grouping should be distinguished from other types of grouping especially tracking. Tracking means dividing students into groups based on preassessment or observation for their

abilities and achievements. This results in rigid tracks that allow little or no movement between tracks during a school year or from one school year to another. However, ability grouping means grouping students having similar learning needs for the length of time that works best for them targeting a common instructional level. For example, students at the secondary level may be assigned to high ability groups in the areas that they are gifted in such as math and assigned to average ability groups in other subjects. They can be regrouped during the school year based on their development. Kulik and Kulik (1987) emphasized that ability grouping for gifted and talented students in this form affect their academic achievement moderately.

Acceleration

"Acceleration is an educational intervention that moves students through an educational program at a faster than usual rate or younger than typical age" (Colangelo, Assouline, & Gross 2004, p. 5). There are various acceleration strategies that include but not limited to: advancement placement classes, curriculum compacting, early college entrance, early entrance to school, individualizing curriculum, radical grade-skipping, and subject area acceleration (Siegle, Wilson, & Little, 2013). Wells, Lohman, and Marron (2009) emphasize the effectiveness of accelerative strategies especially on GT students' academic achievement and further explain that accelerated students are able to perform better than their older peers.

Despite all the research supporting academic acceleration and proving its positive impact on academic achievement, it remains an underutilized strategy. That is because of different reasons such as: teachers' and parents' perception about acceleration as pushing children through childhood, the educators fear on accelerated students' social adjustment, and the teachers' belief that accelerating students diminishes the self-esteem of other students (Colangelo, Assouline, & Gross, 2004). Some studies showed that accelerated students demonstrated higher social competence than non-accelerated students. However, there was no difference in general self-concept between both groups (Hoogeveen, Hell & Verhoeven, 2009). Nevertheless, Siegle, Wilson, and Little (2013) reported the need for additional research concerning the social and emotional impact of academic acceleration.

Enrichment

Enrichment programs focus on introducing GT students to advanced content. In-depth activities and broader topics explored aim to develop higher order thinking skills and provide opportunities for creative production. Enrichment clusters is an enrichment strategy, where students are categorized according to interest and investigate real-world problems. The program is based on constructivism and focuses on inductive, collaborative, and authentic learning. Enriching students' learning in this strategy is achieved through three types of staged activities. The first stage aims to spark student interest in the topic. The

second stage develops higher level thinking processes and skills through exposure to in-depth topics and materials. This leads to the third level where student self-select an independent project, manifesting newly constructed learning experiences (Fiddyment, 2014; Kim, 2016).

Enrichment programs positively affect both GT students' academic achievement and socio-emotional development (Kim, 2016). According to Hertzog (2003), GT students reported that they felt adequately challenged by content, were exposed to various instructional methods, and had opportunities to explore their interest. Also, attending enrichment programs resulted in improved socialization skills in GT students' school lives (Morgan, 2007).

In addition to the aforementioned in-school programs, GT students can get opportunities of extracurricular academic. Classes are often planned during summer or on weekends. Acceleration, enrichment, or a combination of both strategies are implemented in these summer/weekend programs. Parents of GT students reported positive effects academically, socially, and emotionally. One downside of these programs can be the reluctancy of schools to award academic credit despite students' tests scores indicating the mastery of the content during summer courses (Swiatek & Lupkowski-Shoplik, 2003).

It is worth mentioning that each GT program set criteria for students' selection depending on the type of the program and various preferred indicators of talent and giftedness. However, there are several problems concerning the identification such as: false assumptions and prejudices, observational errors, lack of knowledge about the developmental conditions, and the failure to identify high risk groups, e.g., highly gifted students with behavior problems, economically disadvantaged and minority gifted learners, or gifted immigrant children and youth. These problems might result in wrong identification or missing out highly GT students, which in turn would disturb the system and students' learning (Heller, 2004).

Social Comparison Effect

Festinger's (1954) social comparison theory indicates the role of the social environment in the formation of one's self-concept. Therefore, understanding this theory will inform the endeavor of exploring students' self-concept, particularly the GT. The theory is centered around the notion that there is a drive within humans to gain true self-evaluation through objective means. In the absence of the objective means, individuals evaluate their abilities and opinions by comparison to other people. This comparison is only done with people who individuals perceive as alike. Humans tend not to compare themselves with people perceived as different in abilities and opinions.

Marsh (1986) developed and tested the Internal/External Frame of Reference Model. This model evolved from research designed to test the Shavelson model of self-concept and introduced the external reference that further explains the social comparison theory. The frame of reference is a set of internal and external criteria that individuals measure their abilities against. Initially, the Internal/External Frame of Reference Model described how verbal, and math self-concepts are

formed. For the internal comparison, which is also called dimensional comparison, students compare their self-perceived verbal ability with their self-perceived math ability and use their internal impression as a basis of their self-concept in each domain: math and verbal. For the external comparison, the social comparison, students compare their own self-perceptions of math and verbal abilities to their peers' perceived abilities and use their external impression as a second basis of their self-concept in each domain. Later, the Internal/External Frame of Reference Model was developed to account for age-developmental and cross-cultural differences (Marsh et al., 2015). Möller et al. (2016) introduced a general reference model that applied to all self-concept dimensions (see Figure 1) and explained the formation of different self-concept dimensions in the same way math and verbal self-concepts are formed.

Marsh and Parker (1984) studied the effect of social comparison on students' academic self-concept and introduced the Big-Fish-Little-Pond-Effect (BFLPE). That is, students form their academic self-concept by comparing their academic performance against their peers in their own classroom or their school. They do not compare themselves to a broader reference such as community-wide or national standards. For two students of equal abilities, The BFLPE predicts lower academic self-concept for the student who is enrolled in a school for high achievers only. On the contrary, the student who is enrolled in heterogeneous school exhibits higher self-concept. It is important to note that BFLPE does not imply that higher-achieving students will have lower academic self-concept. However, it proposes that for any given student, enrollment in higher average skill educational setting tends to form lower academic self-concept and results in lower grades and occupational aspirations (Marsh, 1991).

Marsh, Kong, and Hau (2000) realized the importance of cultural differences in the formation of GT students' self-concept especially for a collectivist society compared with individualistic. Therefore, they suggested that social comparison has negative impact on self-concept whereas reflected-glory effect has a positive effect and the BFLPE in this case is the net effect of the two counterbalancing processes.

There is little mentioned in the literature about the effect of BFLPE on GT students in the long run, whether the decrease in academic self-concept is permanent or temporary in nature. Also, there is little mentioned about the effect of counseling by school's teachers, counselors, and parents on the change in students' self-concept and how to reduce the negative effects of the social comparison.

Methodology

This study employed an exploratory qualitative research approach to investigate and understand the students' perspective about the effect of enrolling in GT programs on their self-concept. The aim is to explore how students interpret their experiences to construct and develop their self-concept and what meanings they attribute to their experiences (Merriam & Tisdell, 2016).

Semi-structured interviews were conducted with each participant using Zoom platform. Interviews were recorded with participants' and parents' permissions. Zoom audio transcription was utilized to transcribe the interviews and later were transcribed manually to fill in any gaps and to make corrections.

To ensure confidentiality, anonymity was assured through using pseudonyms throughout the research process and any documentation. When communicating with participants' parents, they were assured that their children's identities will remain concealed. Also, during the interviews, students were notified that their identities, school names, and any desired personal information will not be revealed. Additionally, students' and their parents' consent were obtained to record the Zoom interview for the purpose of self-reference and data analysis only. They were informed that participation is voluntary and that they had the right to withdraw or refuse to answer any question. Thus, the aim was to establish trust and rapport with the participants and ensure retaining ethical standards and the integrity of the research practice (Baez, 2002).

Participants' Selection

Participants were secondary students in eighth to twelfth grade. At this age, their self-concept stands a good chance of being reasonably developed and structured in contrast to younger students, who might be unable to differentiate themselves from their environment (Shavelson, Hubner, & Stanton, 1976). 75% of the participants were locals and 25% were expatriates

In this study, participants belonged to three different GT programs based on school of choice. The first program is the Elite Stream which is provided by the UAE Ministry of Education in corporation with the American College Board to create an educational environment for creative and outstanding students. The stream targets students from grade five to grade twelve. It focuses on mathematics and sciences, which are all taught in English in contrast to all other streams provided by the Ministry. The Elite Stream depends on accelerating students one higher grade ("Elite Stream").

The second program is provided by Hamdan Bin Rashid Al Maktoum Centre for Giftedness and Creativity. The center provides training courses and workshops targeted to Emirati GT students, who are tested through different diagnostic tools and placed in suitable programs. There are plenty of topics and subjects that are covered and correspond to the students' need and the world's continuous development. The center provides enrichment courses in science, technology, engineering, and mathematics along with personal and thinking skills ("Hamdan Award")[1].

The third system is implemented in one of the private schools in Dubai and it was designed by the school itself. GT students are identified by a test, and they are offered enrichment courses, mostly in science subjects. Additionally, the school arranges a conference at the end of the school year. GT students who want to participate fill a questionnaire. Then, after being guided by their teachers, a specific subject is chosen for each student to research. At the end of the year, each

[1]https://www.ha.ae/.

student presents the topic in the conference in front of the guests and some chosen society members.

Participants were all girls from grades 8 to 12. Table 1 depicts their grades and the programs they are enrolled in. Students will be referred to by letter designations to protect their privacy.

Table 1. GT Students' Grades and Programs

Name	Grade	Elite Stream	Sheikh Hamdan Centre	Private School GT Program
A	10	✓	✓	
J	8		✓	
W	12	✓	✓	
L	9	✓	✓	
S	10	✓	✓	
K	8	✓	✓	
N	12		✓	
R	9		✓	
M	8			✓
P	11			✓

Limitations

Several limitations were identified in the study regarding the pool of available participants. To begin with, all the interviewed students were females, since the selection was done by the program administrators and as there was no choice in recruiting the participants. Therefore, this study does not account for gender differences. Additionally, all the interviewed students who are enrolled in the Elite stream are also enrolled in Sheikh Hamdan Centre. Findings and insights might have been different if students were enrolled in the Elite stream, but not in Sheikh Hamdan Centre. Furthermore, the three GT programs focus on scientific subjects, and they do not account for giftedness and talent in art subjects.

It is important to note that GT programs are novel and limited in Dubai schools. According to many teachers and administrators, schools seem to identify students as gifted and talented for the sake of possible differentiation in the classroom, but they fall short of enrolling them in any specialized program. Additionally, in the current COVID-19 pandemic schools seem to focus resources on providing solutions for equitable access opportunities for all students rather than investing in GT departments.

Data Analysis

The data consisted of the transcribed interviews as well as the video recordings of all the interviews. Merriam and Tisdell (2016) explain the importance of simultaneous data collection and data analysis. Therefore, a journal was kept to write reflections, any emerging themes, and any idea that developed after each interview. The data were read and the interviews were viewed multiple times.

Then, the analytical coding started; creating codes based on reflection and interpretation of meaning. To aid that, a color-coded system was used to identify these codes. Then, these codes were categorized allowing related three main themes to emerge, the general self, the academic self, and the social self, which will be discussed in the following sections.

Results

The General Self

This theme portrays how students perceive the influence of the GT program on their self-image. When students were asked how GT programs influenced their self-image, both positive and negative effects were mentioned based on students' perceptions. A, N, P, and J indicated that being enrolled in the GT program boosted their self-confidence. J added, "I know that we all have potentials, and I am not shy to show mine. I know that I can do a lot… I know now how to express my thoughts and opinions". Additionally, L indicated that GT program promoted her sense of competition and gave her the victory feeling in different situations. She reported: "I always like to present my project and defend what I did. I love the wow feeling when I do it right!". M and L both expressed how the program made them independent. L mentioned that after joining the Elite stream, she gained her parents' trust as she was able to make more sound decisions in their opinion. Also, she was able to accept and benefit from the constructive feedback she receives. Moreover, J indicated that Sheikh Hamdan programs broadened her perspectives that now she thinks about topics and subjects that students at her age do not think about. J and S mentioned that being enrolled in Sheikh Hamdan Centre taught them a lot of skills. These skills for them are the tools that will help S reach her dreams and goals and will allow J to help others. J said:

> We had a project to design a website. This project made me think of starting a new project where I combine several educational platforms in one place and I am working with my teacher to see how we can implement it. I always think how I can better serve and help others especially students.

As for the negative influence, J and S felt that the intellectual gap is widening between them and their peers. S said: "They do not understand my ideas and they say I am a dreamy person. Some people tell me your ideas will never materialize, although I work hard on them. This disappoints me". However, criticism is a factor that had little effect on most of the students interviewed. K and M never recalled that they were criticized before. A, L, W, S, N, and R mentioned that they are always criticized from mostly peers and relatives. The criticism is mostly about the amount they spend studying and to others, what they do might seem a waste of time. However, they responded differently. A said: "I am working for my future, and no one will do it for me. I need to do it for myself." L, S, and N reported that they ignore criticism. L added that she listens to the constructive feedback as she needs to work on having the best version of herself. S mentioned that people who

only criticize her might be jealous of what she does. While N added that she only cares for those who support her. W said that the work she is always criticized for, is what she likes and enjoy doing. She added: "this is why gifted students are different than normal students". Sometimes, R finds herself defending what she does in front of the people who criticize her because according to her, they need to know that we all should not waste our time and we have to work on developing ourselves and adding to our experiences. J said that since she opened her social media channels publicly, she fears criticism and abusive words although she never received one.

The Academic Self

This theme represents how student viewed the influence of the GT program on their academic self-concept. As for the academic influence of the GT program, students mentioned how it widened their perspectives about cutting edge sciences. Students who are enrolled in Sheikh Hamdan Centre participated in workshops about robotics, programming in different languages, artificial intelligence, etc. R mentioned that Sheikh Hamdan Centre offers different workshops in the recent developing sciences that they would not get exposed to if they were not enrolled in the center. S reported: "before joining Sheikh Hamdan Program, I used to spend my time on simple things but now, I like research. In summer vacation, when I have plenty of time, I research about topics I like… I read to add to my knowledge". Also, students mentioned that GT program allowed them to excel in their academics as they were taught accelerated and enriched subjects. K stated that having workshops about programming made her like it and when it was introduced in school, it was already easy for her. Also, N reported that participating in Arabic, Mathematics, and technology workshops in Sheikh Hamdan Centre helped her improve her grades in school. R said: "so many subjects when introduced in school, we know them already". Another academic effect of the GT program as P mentioned is, "I feel I am academically confident. Especially if I know something, I can apply it more now".

Additionally, students mentioned that they faced academic challenges being enrolled in the GT programs. A, J, W, N, and R said that when they first joined Sheikh Hamdan Centre, they were overwhelmed with the amount of studying they had to do for both their school and the program. However, it only lasted for a semester until they learnt how to manage their time and prioritize their tasks. Only J, who joined Sheikh Hamdan Centre in 2019, said: "I still have problems with time management. I think I am getting better and hopefully I will overcome it soon". K faced a problem with English being the main language for studying in the Elite stream. Before entering the Elite stream, she was studying all the subjects in Arabic. She said: "I faced difficulty with English as it was a move from Arabic to English as I started in the Elite stream". Moreover, M reported: "Sometimes, it is hard to maintain academic excellence. There is simply no motivation to do projects, but you have to keep it up". Another challenge reported by N and R is the choice of programs in Sheikh Hamdan Centre. They mentioned that sometimes they are overwhelmed with the pressure that they need to keep up with all sorts of

programs. This seemed to confuse them, and they would just pick one program hoping that they will get another chance to register for the other one. Additionally, P said that: "Being in the GT program last year caused me a lot of stress… I needed to speak constantly to my parents and friends about it". Finally, W said: "not everyone likes scientific subjects, and some students are forced to be in the program by their parents".

When students were asked about the effects of being compared to their peers, most of them indicated temporary effects. All the girls reported that when someone does better than them academically, they feel bad about it only for very short time. For example, R said: "I blame myself as I might have wasted my time doing something useless". Then, many of them like R, J, and P said they reflect on what happened and they try to see what went wrong as a lesson for the future. S said:

> Even if I ranked the third this time, I can do better the next time. I start thinking why I did not study well enough for this exam or that. I start asking myself a lot of (Why's?), but I think I got used to it. I start blaming myself for some time but then, it is fine.

While M mentioned that she constantly compares herself to others as she is scared to fall behind and this is a way to improve her academic performance "I cannot say I am doing well and that is it". Some of the students like N said she does not compare herself to others. She dedicates her time to studying in addition to plenty of extracurricular activities that sometimes might affect her academic performance. She added that she is fine with that as long as she knows that she is doing her best.

The Social Self

When I asked students about the effect of being in such programs on their social life, there were a variety of responses. Students expressed being influenced socially by their GT programs. A and W focused on the idea that the program taught them a lot of communication skills that allowed them to enhance their relationships with others. J and P said that the program made them more social. Also, J, S, and R said that the program allowed their parents to understand their needs and how they think. This resulted in a better relationship with the parents. L added: "now they trust my decisions because they know I am responsible for my actions". S, W, and P emphasized that their parents' support increased since they joined the GT program and they all like it. S mentioned that she used to fear dealing with people. However, she is better now creating more connections. Also, N emphasized that the program allowed her to "create strong bonds with others and preserve them". J and R shared the same thought of being able to make more friends now. Additionally, R mentioned how she trust her teachers more now. Finally, P mentioned how the GT program made her more confident in her relationships in the classroom.

In summary, analyzing and coding the data revealed three facets of self-concept: general, academic, and social. As for the general facet, students depicted

both positive and negative effects of the GT programs, with more emphasis on the positive ones. As for the academic facet, students mentioned the positive effects and challenges they encountered being part of the GT programs and how they overcame these challenges. As for the social facet, they presented the positive influence of the GT programs on their social self.

Discussion

This study aimed to explore the influence of the gifted and talented (GT) programs on students' self-concept from the students' perspectives through interviewing ten GT students enrolled in different GT programs. The findings show that students exhibit positive self-concept in three dimensions: general, academic, and social. Two students showed relatively moderate social self-concept. However, their general and academic self-concepts were relatively high. Also, the findings may support the reflected glory effect. That is, when students know that the program is highly selective based on giftedness, their self-concept tends to increase because of highly regarded group association (Cunningham & Rinn, 2007). All students from the three programs developed a sense of pride being enrolled in a GT program, which in turn developed an elevated perception of the individual self. This positive self-concept was evident in students' self-confidence, their view of their academic achievements, and their beliefs of the importance of their future role in the society. Also, the three GT programs provided the students with opportunities to explore new topics and subjects and try new experiences, which widened their understanding and perspectives about various world issues, boosted their self and academic confidence, and equipped them with practical life skills such as independence and effective communication.

On the other hand, the findings did not support the Big-Fish-Little-Pond (BFLP) Effect, which suggests that if students are placed in an environment with students of equal or higher ability, their self-concepts will decrease, similar to the results of Cunningham and Rinn (2007) and Preckel et al. (2019) and opposite to Tokmak, Sak, and Akbulut (2021). This contradiction may be due to one or several factors that mitigate against the BFLP effect. First, although the interviewed students are enrolled in GT programs, their frame of reference for social comparison is not limited to other GT students. They may consider their school peers when forming their frame of reference. With this, their environment does not account only for equal or higher ability students. They form heterogenous groups and that is consistent with Marsh (1991); the student who is enrolled in heterogeneous school exhibits higher self-concept. Second, the findings may support what Marsh, Kong, and Hau (2000) suggested that social comparison has negative impact on self-concept whereas reflected glory effect has a positive effect and the BFLPE is the net effect of the two counterbalancing processes. In the case of the participants, the positive identification as GT students along with the reflected glory effect offsets the negative impact of the social comparison when made with other GT students and yields positive self-concept. Although as mentioned earlier, there is limited literature about the effect of counseling, the

third explanation may be linked to the counselling provided to the students as part of their enrollment in the GT programs. Eight out of ten interviewed students are enrolled in Sheikh Hamdan Centre, and they always conduct personal and thinking skills workshops. These workshops develop the students' internal frame of reference regarding their abilities and perceived self-concept; possibly diminishing in return the importance for external frame of reference. In other words, they probably no longer form their self-concept based on the social comparison with their peers. Instead, their perceived self-concept may be formed based on their personal achievements and perceived abilities. This was evident in the students' description of their academic achievements compared to their peers and how they reacted to criticism. Finally, few challenges only were mentioned by the students, and this could be due to the students' conscious/unconscious need to maintain a certain self-image. It could be also due to the excitement of being part of a new initiative in the UAE.

Conclusion

GT students form their self-concept in their unique way based on their special needs. Planning the GT programs may not only focus on their academic needs. Thinking about GT students holistically (academically, socially, emotionally, etc.) will develop various aspects in their personality and yield a balanced character with adequate self-concept that is able to understand the world and form the right social relationships. In conclusion, the GT programs in the UAE seem to influence students' self-concept positively by nurturing their strengths, valuing their efforts, developing their skills, and emphasizing their future roles in the community. However, it is worth noting that hypersensitivity and perfectionism are unique GT characteristics (Freeman, 1983) that were noticed in few interviewed students. Also, many students shared identical views that might indicate a highly prescriptive program, where theoretically, GT students have to be offered free thinking programs with guided mentorship. Furthermore, there was no access to the identification criteria, hence, the assumption is that each GT student had equal chance to enter the program being appropriately assessed.

The current study only examined GT students' self-concept at one point in time and while they are enrolled in the GT program. It would be interesting to study the effects of the program at the point when student leave the program and move on with their university life and examine if these effects will last. Also, it would be intriguing for future studies to explore the main driver behind the positive self-concept. For example, whether being placed in a GT program is the main cause for positive self-concept or there are other factors such as curricular, emotional or social differential programming.

References

Baez, B. (2002). Confidentiality in Qualitative Research: Reflections on Secrets, Power and Agency. *Qualitative Research, 2*(1), 35-58.

Bain, S. K., & Bell, S. M. (2004). Social Self-Concept, Social Attributions, and Peer Relationships in Fourth, Fifth, and Sixth Graders who are Gifted Compared to High Achievers. *Gifted Child Quarterly, 48*(3), 167-178.

Cunningham, L. G., & Rinn, A. N. (2007). The Role of Gender and Previous Participation in a Summer Program on Gifted Adolescents' Self-Concepts over Time. *Journal for the Education of the Gifted, 30*(3), 326-352.

Colangelo, N., Assouline, S. G., & Gross, M. U. (2004). *A Nation Deceived: How Schools Hold Back America's Brightest Students. The Templeton National Report on Acceleration. Volume 1* (Vol. 1, Rep.). Iowa City, Iowa: The University of Iowa.

Colangelo, N., Kelly, K. R., & Schrepfer, R. M. (1987). A Comparison of Gifted, General, and Special Learning Needs Students on Academic and Social Self-Concept. *Journal of Counseling and Development, 66*(2), 73-77.

Dai, D. Y., Rinn, A. N., & Tan, X. (2013). When the Big Fish Turns Small. *Journal of Advanced Academics, 24*(1), 4-26.

Elite Stream – Application for the Academic Year 2021/22. Available at: https://www.moe.gov.ae/en/importantlinks/forms/pages/asp-elite-stream.aspx.

Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations, 7*(2), 117-140.

Fiddyment, G. E. (2014). Implementing Enrichment Clusters in Elementary Schools: Lessons Learned. *Gifted Child Quarterly, 58*(4), 287-296.

Fiedler, E. D., Lange, R. E., & Winebrenner, S. (1993). In Search of Reality: Unraveling the Myths About Tracking, Ability Grouping and the Gifted. *Roeper Review, 16*(1), 4-7.

Freeman, J. (1983). Emotional problems of the gifted child. *Journal of Child Psychology and Psychiatry, 24*(3), 481-485.

Heller, K. A. (2004). Identification of Gifted and Talented Students. *Psychology Science, 46*(3), 302-323.

Hertzog, N. B. (2003). Impact of Gifted Programs from the Students' Perspectives. *Gifted Child Quarterly, 47*(2), 131-143.

Hoge, R. D., & Renzulli, J. S. (1993). Exploring the Link Between Giftedness and Self-Concept. *Review of Educational Research, 63*(4), 449-465.

Hoogeveen, L., Hell, J. G., & Verhoeven, L. (2009). Self-Concept and Social Status of Accelerated and Nonaccelerated Students in the First 2 Years of Secondary School in the Netherlands. *Gifted Child Quarterly, 53*(1), 50-67.

Kim, M. (2016). A Meta-analysis of the Effects of Enrichment Programs on Gifted Students. *Gifted Child Quarterly, 60*(2), 102-116.

Kulik, J. A., & Kulik, C. C. (1987). Effects of Ability Grouping on Student Achievement. *Equity and Excellence in Education, 23*(1-2), 22-30.

Marsh, H. W. (1986). Verbal and Math Self-concepts: An Internal/External Frame of Reference Model. *American Educational Research Journal, 23*(1), 129-149.

Marsh, H. W. (1991). Failure of High-ability High Schools to Deliver Academic Benefits Commensurate it Their Students' Ability Levels. *American Educational Research Journal, 28*(2), 445-480.

Marsh, H. W., & Parker, J. W. (1984). Determinants of Student Self-concept: Is it Better to be a Relatively Large Fish in a Small Pond Even if you Don't Learn to Swim as Well? *Journal of Personality and Social Psychology, 47*(1), 213-231.

Marsh, H. W., Kong, C., & Hau, K. (2000). Longitudinal Multilevel Models of the Big-Fish-little-pond Effect on Academic Self-concept: Counterbalancing Contrast and Reflected-glory Effects in Hong Kong schools. *Journal of Personality and Social Psychology, 78*(2), 337-349.

Marsh, H. W., Abduljabbar, A. S., Parker, P. D., Morin, A. J., Abdelfattah, F., Nagengast, B., et al. (2015). The Internal/External Frame of Reference Model of Self-concept and Achievement Relations. *American Educational Research Journal, 52*(1), 168-202.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative Research: A Guide to Design and Implementation*. 4th Edition. San Francisco: Jossey-Bass.

Möller, J., Müller-Kalthoffa, H., Helma, F., Nagya, N., & Marsh, H. W. (2016). The Generalized Internal/External Frame of Reference Model: An Extension to Dimensional Comparison Theory. *Frontline Learning Research, 4*(4), 1-11.

Morgan, A. (2007). Experiences of a Gifted and Talented Enrichment Cluster for Pupils Aged Five to Seven. *British Journal of Special Education, 34*(3), 144-153.

Preckel, F., Rach, H., & Scherrer, V. (2016). Self-concept Changes in Multiple Self-concept Domains of Gifted Students Participating in a Summer Residential School. *Gifted and Talented International, 31*(2), 88–101.

Preckel, F., Schmidt, I., Stumpf, E., Motschenbacher, M., Vogl, K., Scherrer, V., et al. (2019). High-ability Grouping: Benefits for Gifted Students' Achievement Development Without Costs in Academic Self-concept. *Child Development, 90*(4), 1185-1201.

Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of Construct Interpretations. *Review of Educational Research, 46*(3), 407-441.

Siegle, D., Wilson, H. E., & Little, C. A. (2013). A Sample of Gifted and Talented Educators' Attitudes About Academic Acceleration. *Journal of Advanced Academics, 24*(1), 27-51.

Slavin, R. E. (1987). Ability Grouping and Student Achievement in Elementary Schools: A Best-Evidence Synthesis. *Review of Educational Research, 57*(3), 293-336.

Slavin, R. E. (1990). Ability Grouping in the Middle Grades: Achievement Effects and Alternatives. *Review of Educational Research, 60*, 471-499.

Slavin, R. E. (1991). Are Cooperative Learning and "Untracking" Harmful to the Gifted? Response to Allan. *Educational Leadership, 48*(6), 68-71.

Swiatek, M., & Lupkowski-Shoplik, A. (2003). Elementary and Middle School Student Participation in Gifted Programs: Are Gifted Students Underserved? *Gifted Child Quarterly, 47*(2), 118-130.

Tokmak, F., Sak, U., & Akbulut, Y. (2021). *Big-fish-little-pond Effect on Gifted Students' Academic Self-concepts: What if the Big Fish has Adaptable Academic Self-concepts?* TED EĞİTİM VE BİLİM.

Wells, R., Lohman, D., & Marron, M. (2009). What Factors are Associated with Grade Acceleration?: An Analysis and Comparison of Two U.S. Databases. *Journal of Advanced Academics, 20*(2), 248-273.

Appendix A: Interview Guide

Research Question: How do gifted and talented programs influence the students' self-concept?

1. As you know, my study is about self-concept, so let me begin by asking you how you would describe yourself?
2. How do you feel about being part of the GT program? Please tell me about the subjects you like.
3. I understand you completed a few projects in the GT program, how did that make you feel?
4. What extracurricular activities do you like to do (or join) during your summer vacation? Is this different since you joined GT program?
5. How do you describe your relationship with your parents? Did it change after joining GT program? How?
6. How do you feel about the classroom/school environment since you joined GT program? (Probe: Safe/comfortable to show abilities. Relationship with peers)
7. How do you describe your self-image? Did it change after joining GT program? How so?
8. What challenges have you faced since you joined the GT program? How did you deal with them?
9. Have you faced any criticism since you joined GT program? From peers or adults? How does such criticism make you feel? What do you do about it?
10. How does being a part of the GT program make you feel about yourself? Did you always feel that way before? Why do you think this happens? Do you compare yourself to your peers who perform at the same level in classes? (feeling?)
11. Is there anything you would like to tell me about the GT program that I haven't already asked?