



## An Exploratory Study on The Behavioral Characteristics of Talented Students in the Northern Border Province of the Kingdom of Saudi Arabia

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**Abstract:** This study aimed to identify the behavioral characteristics of talented students in the Northern Border Province of the Kingdom of Saudi Arabia. To achieve the goal of the study, the researchers utilized the analytical descriptive approach by posting a questionnaire link to all social networking sites for the study participants. Five dimensions were used in the study's questionnaire to determine the behavioral characteristics of talented students in the Northern Border Province. For this purpose, talented students from the Northern Border secondary schools (n= 97) aged 15 to 18 were surveyed using a Likert scale of five points with 25 items representing five important dimensions (mental characteristics, cognitive characteristics, emotional and social characteristics, leadership characteristics, and creative characteristics). Data was collected using the Google Forms online form. According to the study findings, the participants answered positively to all five dimensions. Talented students in the Northern Border Province possess high levels of mental characteristics, with a mean level of 4.309 and a standard deviation of 0.761, as well as cognitive and emotional characteristics. As a result of emphasizing the mental characteristics of talented students, it is recommended that teachers should adjust their teaching styles to match talented students' abilities. Moreover, their evaluation techniques should be based on product-oriented rather than process-oriented methods.

**Keywords:** Exploratory Study; Behavioral Characteristics; Talented Students; Northern Border Students

### 1. INTRODUCTION

Talented students are individuals that have exceptional skills, talents, and the ability to succeed when given the opportunity (Subotnik et al., 2018). They may do far better than their temporal contemporaries and often have more developed attitudes, talents, and emotional stability. They have diverse racial, cultural, and socioeconomic origins. Gifted students may have a higher education level, greater aptitude for application, and a thirst for sophistication. Striving for good provision for gifted pupils is a constant aim, and since they are a cultural resource with which all countries face challenges, the brain competition is the topic of greatest importance to the entire globe and the Education Ministry in all nations (Brown and Tannock, 2009; Lee et al., 2012).

Learning and education require self-education. Experts in the field of talented education agree that the talented students represent a vast wealth that must be invested in. This distinct group lacks the special resources to develop and advance. As a result, academic institutions must take care to develop and utilize their resources. It is crucial to identify and direct this group of students to organizations

and regions that might benefit from their presence (Alfaqeer & Baioumy, 2019; Subaih et al., 2021).

There are significant obstacles to the adoption of activities and practices that differentiate gifted students from other students in regular classrooms, as described by authors such as Jie and Hassan (2019). According to Jie and Hassan (2019), professionals, including special education educators, are crucial to helping teachers deal with gifted students. Gifted students need not only academically support but holistic development from their teachers. Educators must be well-trained, supported, and motivated to deliver quality educational interventions. Moreover, they should have positive perceptions and attitudes about giftedness and gifted education, which influence the way they teach talented students. To ensure that teachers' teaching needs are met, and their best teaching practices are recognized and documented, it is important to consider their views and feedback. A chance must be provided for teachers to participate in the evaluation of gifted education programs in their schools. (Jie and Hassan, 2019; Mohamed & Elhoweris, 2022).

It is noteworthy that the historical conceptions of the talented place a significant emphasis on individual and



intellectual traits. It is a crucial procedure since talented people require instructional programs that assist them to improve their intellectual, creative, and cultural skills, and in certain instances, the curriculum and instructional techniques need to be developed to meet their unique requirements (Jarwan, 2008; Sabbah, 2021). The mission starts with a search for talented students and studying their behavioral characteristics and analyzing the findings, followed by an evaluation of their characteristics (Sabbah, 2017). It was emphasized that social, interpersonal, and intellectual qualities were a primary driver of historical classifications of talented individuals, as they maintain a prominent place in modern options to define them (Quraiti, 2005).

Studies have been conducted on the concepts of intelligence (Hébert, 2021; Tonemah, 1991; Valencia and Suzuki, 2000). Sternberg's hypothesis (2005) focused on improving the learning skills of talented students and their thinking skills. According to his concept, imaginative, analytical, and operational capabilities are harmonized and influenced by the individual's social setting and culture, rather than conventional teaching methods. In this case, the individual's strengths and weaknesses become apparent, and he or she balances the flaws with advantages; these qualities are considered prerequisites for the discovery of brilliant individuals (Ahmad et al., 2014; Sabbah, 2017).

Talented students should be better represented in academic settings and educators should recognize their intellectual and developmental disorders, as well as their rarity and importance (Mangal, 2007; Sternberg, 2017). Thus, research is required to unearth these skills, one of the most integral elements of the educational institutions in the Northern Border Province. They also contribute to the overall growth of the province. Even though academic institutions pay little attention to this group, there are no courses that cater to its unique economic, emotional, financial, and intellectual needs. As most research focuses on the age group of younger students, this study suggests changing the direction of many research findings by emphasizing secondary school learners' perceptions of their behavioral characteristics.

This study is an exploratory investigation into the behavioral characteristics of talented students in Northern Border Province. The purpose of the study is to identify the behavioral traits that are associated with talented students in this region. Exploring the behavioral characteristics of talented students can provide several benefits including: 1. Improved understanding of the learning process: By understanding the behavioral patterns and tendencies of talented students, educators can develop more effective teaching strategies to help these students succeed. 2. Enhanced identification of talented students: By recognizing specific behavioral characteristics, educators can more accurately identify talented students

and provide them with the support and resources they need to succeed. 3. Personalized learning experiences: By considering the unique behavioral characteristics of each talented student, educators can tailor their teaching approach to meet the individual needs of each student, providing a more personalized learning experience. 4. Better support for social and emotional development: By paying attention to the behavioral characteristics of talented students, educators can provide them with the support they need to develop strong social and emotional skills, which are crucial for success in life. 5. Improved academic performance: By considering the behavioral characteristics of talented students and tailoring the learning experience to meet their needs, educators can help these students achieve higher levels of academic success (Hébert, 2021; Mohamed & Elhoweris, 2022; Ngara & Al Mahdi, 2015).

The research focuses on mental characteristics, cognitive characteristics, emotional and social characteristics, leadership characteristics, and creative characteristics. The findings of this study provide valuable insights into the development of effective strategies for nurturing and supporting talented students in Northern Border Province. This study also suggests understanding their perspective on their behavioral traits to answer the study question:

Q1: What is the level of behavioral characteristics among talented Northern Border Province students based on the questionnaire dimensions?

#### *Objectives of the Study*

1. Determining the five behavioral characteristics dimensions of talented students in the Northern Border Province.
2. Identifying the inventive qualities of talented students in Northern Border Province.
3. Providing recommendations for educational institutions and policymakers on how to support and nurture talented students in Northern Border Province.

#### *Study Significance*

The significance of the research may be summed up as follows:

1. This study's significance to establishing guidelines and standards for understanding the talented behavioral, analytical, pragmatic, and imaginative characteristics
2. Utilizing these features to provide for the talented and address their academic and institutional requirements.
3. Engaging talented students in numerous disciplines to advance society.

## **2. LITERATURE REVIEW**

Many researchers select students based on IQ test scores, which may not reflect important factors like motivation or personality. It is, therefore, necessary to carry out more research to determine how gifted students perform rather than just their test results. Research



indicates talented students have several emotional, mental, and social characteristics. These characteristics help the teacher to care for the student. It is more obvious that gifted students share many distinct characteristics; however, the combination of these characteristics cannot be found in one student no matter how great his ability is (Subotnik et al., 2018).

Furthermore, talented students are creative thinkers who can come up with creative solutions to complex problems. They are self-motivated learners who enjoy exploring new topics and taking initiative in their studies. As analytical students, they can break down complex concepts and apply them to real-world situations. Additionally, they are collaborative team players who can work together to accomplish a common goal. Talented students are passionate students who demonstrate enthusiasm for their studies and are driven to succeed. They are critical thinkers who can evaluate information objectively and draw meaningful conclusions from it. They are artful communicators, capable of expressing their ideas in a concise and clear manner through a written and verbal form (Ngara & Al Mahdi, 2015; Shin & Park, 2021). The following section discusses some related studies on talented students.

Al-Qutaish (2020) asserts that creative talents play an essential role in education. His study found statistically significant differences between females and males in fluency, flexibility, and originality. These results do not support the claim that gender influences creative thinking. Moreover, students' age significantly influences formal or verbal test performance.

Alfaqeer & Baioumy (2019) mentioned that progress and growth in every country depend on investing in talent. They must be invested in and exploited. The rights of talented students are deprived when they are not properly cared for. However, they still receive less favorable education and care services despite their talent and outstanding performance. Alfaqeer & Baioumy used a survey to identify talented students' needs. Research on their care identifies the key trends. This study found gifted students have emotional, physical, academic, and social needs, which must be met in many ways by modifying the institutional structure, curriculum, activities, and teacher preparation. Talented students should also be discovered, developed, and invested in through a special program.

In Al Shobaki and Naser (2016), gifted and talented students are identified with variations explained by their gender, scientific qualifications, and delivery period. Using a deductive-inductive approach, this study identifies the most serious difficulties gifted and talented students encounter from the teachers' perspective, as well as some strategies for addressing the condition. Among survey aspects, the sentences that have the highest arithmetic mean were: the school provides a canteen, psychological guidance, talented students are chosen for their grades,

gifted education students are selected based on their talent scores, the school management reaches out to parents to keep track of their sons, and the school supervises the teachers. It was curriculums and bachelor's degrees that were statistically significant, not gender or experience.

Alyahya (2018) sought to demonstrate the potential of triple intelligence to anticipate decision-making. Triple intelligence is a concept developed by Alyahya, which suggests that there are three distinct types of intelligence: cognitive intelligence, emotional intelligence, and social intelligence. Cognitive intelligence is the ability to think logically and solve problems. Emotional intelligence is the ability to understand and manage one's own emotions as well as those of others. Social intelligence is the ability to interact effectively with others in a variety of contexts. Together, these three types of intelligence form a holistic view of an individual's capabilities and potential for success. Saudi Arabian University education and outcomes revealed a high degree of effective intellect and decision-making. According to the findings, the most effective forms of intelligence are indicative of decision-making capability, followed by practical and finally creative intelligence.

#### ***Recognizing Talented Students' Behavioral Traits***

Behavioral characteristics refer to the observable actions and habits of an individual. These can include mannerisms, communication styles, decision-making processes, reactions to stimuli, and coping mechanisms. Behavioral characteristics can be influenced by a number of factors, including genetics, upbringing, and past experiences. Understanding an individual's behavioral characteristics can provide insights into their motivations, personality, and potential areas for growth and development (Renzulli, 2021).

High-ability students are talented students. Gifted pupils are those who can develop innovative ideas. These students face challenges. They suffer from boredom and dissatisfaction at school, as well as isolation (Woolfolk, 1998). As a result, they may have difficulty accepting their own feelings. When friends, parents, siblings, or even professors don't share their interests or talents, they may become irritated. Often, creative students solve problems, create products, or define topics in fresh ways, according to Gardener (Woolfolk, 1998). Diversity of thought is evident here. Some of their answers may seem ludicrous. A few brilliant students are viewed as unusual (Clarck, 1997; Gross, 1993; Reis-Jorge, et al, 2021; Piirto, 1999). Comparing academically gifted students with ordinary students would be fascinating.

Brilliant and talented individuals exhibit certain behavioral traits. In a study of brilliant Malaysian students, Majid, and Alias (2010) identified nine observable behaviors. Students with these characteristics possess unusual curiosity in solving mental problems, best-in-class



language skills, enhanced sensitivity, and a sense of justice. In response to these demands, the educational system should adapt. Classroom material is no longer provided by instructors. A student's interests and curiosity need to be encouraged. Moreover, instructors must encourage pupils' innovative thinking. Nevertheless, teachers should embrace students whose emotional depth and intensity are remarkable. Talented students can comprehend a wide range of circumstances but may not be as adept at managing their emotions. To understand their actions, academically gifted individuals must be researched.

### ***Talented Student Characteristics***

It's important to note that individual students may exhibit different behaviors at different intensities and at different times in their development, and that these behaviors can be influenced by a variety of factors such as family background, culture, and life experiences. Students who are talented have exceptional abilities, talents, and the potential to achieve when given the opportunity. Their interests, skills, and psychological maturity are usually advanced compared to their chronological peers. There is a wide variety of ethnic, racial, and socioeconomic backgrounds represented. Students with gifted abilities learn faster and apply their knowledge more quickly. Gifted students' group are usually considered undifferentiated. They tend to be differentiated based on intellectual abilities, talents, or interests rather than behavior, feelings, and needs. There are categories of giftedness such as creative, intellectual, learning disabled, and artistic. (Awanbor, 1989; Callahan, 2017; White, 2013).

In 1988, Betts and Neihart classified gifted and talented children. First-group students were easily identified as talented. They are innovative, independent, and self-directed in their intellectual endeavors. They often thrive in school-related activities. A difficult profile is the second kind. Their autonomy and self-reliance make them nonconformists. They often feel powerless and dissatisfied with education. Their failure to meet the expectations of a school system may be devastating. All rules and regulations must be followed by students. Students' abilities may be unknown to instructors. Thus, they get neither gratitude nor assistance. It is possible for people to disobey school rules.

Among brilliant learners, the subterranean is the third type. Due to their discomfort with impulsive performance, these students hide their abilities. In schools, gifted and talented behaviors are not encouraged. They reject being labeled as unusual and seek acceptance from their classmates. There are exceptional learners and those who dropped out. This fourth group of exceptional youngsters received insufficient guidance and assistance from the educational system. Also, there is a subset of talented

students with impairments and special needs. Students with dual exceptionalities are the fifth category of bright individuals. The sixth category of talented students is independent learners, who are capable, motivated, and knowledgeable about lifelong learning (Betts and Neihart, 1988).

Educators should recognize that brilliant and talented students will surely fall behind if they do not address their unique needs. A study by Carper (2002) investigated gifted students who dropped out. The study found that all students were bored by classroom teachings. Therefore, educators need to be aware of brilliant kids in their classrooms. Carper (2002) and Betts and Neihart (1988) classified high achievers and low achievers but did not discuss their behavioral characteristics. Teachers can become more aware of their pupils' educational needs by observing their behaviors. To improve gifted behavior in pupils, teachers, school officials, and parents must collaborate. Educators need to focus on developing pupils' potential, which manifests itself in gifted behavior (Matthews et al., 2010).

### ***Consequences for Talent Promotion in Education***

The management of talent plays a critical role in the development of successful organizations. Organizations need to develop 'talent pools' of great teachers to lead our schools into the future. Scientists and educators may employ creative styles to enhance talented students' creative expression. The innovative style concept is well-suited for instructional designers and planners since it assumes that all people solve issues. Despite its importance, many creative personality studies ignore the notion of creativity average in favor of concentrating only on those who have changed the world through their discoveries, creations, or ideas. Creativity style studies may impact everyone's creativity (Davies & Davies, 2011; Ronsksley-Pavia, 2014; Tyagi & Aggarwal, 2017).

Torrance (1987) claimed that students may become more creative problem solvers via education. Teachers are better able to anticipate student challenges in novel learning contexts when they know their students' creative problem-solving methods. Treffinger et al. (2002) recommends first assessing a learner's current performance level. "Not yet obvious," "emerging," "expressing," and "excelling" are performance levels. The degree of functioning helps determine instructional programming that develops a student's creative ability (Al-khresheh et al., 2022; Treffinger et al., 2004).

A student whose talents are "not yet visible" might benefit from core domain skills, creative tools, approaches, and processes. It may be helpful to consider this student's learning style (Dunn et al., 1989). The more we help students understand their preferences and consequences, the better prepared they will be to apply idea generation and focus techniques (Schoonover, 1996;

Selby, 1997). Instructors may also observe areas of interest that require creative skills. Knowing their own style may help educators assess student work in a different way and discover unnoticed creative potential.

Students with "developing" creative capacity could practice domain skills, tools, and creativity. Depending on the domain, small group projects, clubs, and other activities might deepen interest. Students will be required to practice problem-solving skills to work as a team or to create a product for people. Instructors grasp and use this information in their preparation to recognize developing student competency and to evaluate student output based on different styles. This may help educators discover students who are gaining the knowledge, talents, and desire to create high-level creative works. "Expressing" learners may require assistance applying tools and abilities to practical situations and obstacles. These prospects may provide obstacles, but they're low risk.

It is beneficial for talented students to participate in actual, self-directed, and self-initiated challenges, recognizing and applying abilities, processes, and tools to a range of activities. The way in which a learner manages risks and responsibilities is a critical element to the effectiveness of the application of their skills, and this is dependent on their learning style (Gandy, Harrison, & Gold, 2018; Tyagi & Aggarwal, 2017).

Based on the literature reviews and previous studies the behavioral characteristics of talented students can be concluded in these points :1. High levels of motivation and enthusiasm for learning. 2. A strong desire to achieve and succeed. 3. Ability to think critically and analytically. 4. Excellent problem-solving skills. 5. Ability to work independently and collaboratively with others. 6. Good organizational skills and time management abilities. 7. Ability to take initiative and be creative in their approach to tasks and projects. 8. Good communication skills, both verbal and written, as well as the ability to listen effectively to others' ideas and opinions.

### 3. METHODOLOGY

#### *Research Approach*

In this study, the research objective was achieved using analytical methods used in analyzing the research data.

#### *Data Analysis*

We used Google Forms to generate the survey, which then was sent to the participants of the study, through the Snowball method, i.e., the link to the Google Form was sent to a group of talented students at Northern Border secondary schools.

To analyze the questionnaire data, SPSS23 was used as a statistical program. It will analyze the data using the following methods: Alpha coefficients, frequency, percentage, mean, standard deviations, relative weight, and Pearson correlations.

#### *Participants*

The study selected a simple random sample of talented students in Northern Border Province to represent the study population. 97 respondents from the province secondary schools answered the study sample questionnaire after it was distributed on social media and WhatsApp groups.

#### *Study tool*

In this study, data were collected using a questionnaire with a Likert Scale format. Researchers used an online questionnaire form as a study tool, which included (mental characteristics, cognitive characteristics, emotional and social characteristics, leadership characteristics, and creative features) and a total of 25 questionnaire phrases were used, with a five-degree Likert scale to answer the study's questions: strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1). By assessing these five dimensions, this questionnaire provides an evaluation of a student's behavioral characteristics related to talent.

Based on the theoretical framework, the behavioral characteristic scale was developed. The questionnaire was distributed to five professors who specialize in teaching talented courses. Several modifications were made based on their suggestions, and they validated that the content was accurate so that students could comprehend each of the 25 items. The choice of five dimensions was based on a review of existing literature on behavioral characteristics. These five dimensions are considered to be the most important aspects that contribute to the formation of the behavioral characteristics of talented students. They include mental characteristics, cognitive characteristics, emotional and social characteristics, leadership characteristics, and creative features. Each dimension is important in its own right as it contributes to an individual's overall level of emotional intelligence.

The reliability coefficients for each statement and each of the five dimensions were calculated using Cronbach's alpha. In Table 2, the five discrete components of the behavioral characteristics scale are shown along with their respective reliability coefficient. Informed consent forms were signed by consenting students before the questionnaire was administered. Those who participated in the study did so voluntarily and at no cost.

#### *Validating the study tool*

Correlation coefficients were calculated to determine the degree of internal homogeneity of the questionnaire:



**Table 1**  
CORRELATION PHRASE FOR THE STUDY TOOL

| Phrases   | Correlation coefficient | P-value |
|---|-------------------------|---------|
| Mental characteristics  |                         |         |
| Passion for reading and learning  | 0.671**                 | 0.000   |
| The speed of learning and memorization, the strength of memory and the high level of academic achievement | 0.681**                 | 0.000   |
| Increased ability to focus, attention and perseverance  | 0.715**                 | 0.000   |
| High ability to plan and organize   | 0.778**                 | 0.000   |
| Fluency, flexibility and ability to express ideas   | 0.647**                 | 0.000   |
| Cognitive characteristics   |                         |         |
| Increase vocabulary   | 0.707**                 | 0.000   |
| Increasing the ability to deduce and link between relationships and things easily                         | 0.717**                 | 0.000   |
| Passion for reading and writing   | 0.769**                 | 0.000   |
| Diversity of interests and hobbies  | 0.710**                 | 0.000   |
| Ask a lot of questions about topics of interest   | 0.684**                 | 0.000   |
| emotional and social characteristics  |                         |         |
| Emotional stability and autonomy  | 0.758**                 | 0.000   |
| High level of thought and moral maturity  | 0.764**                 | 0.000   |
| High level of personal and social adaptability  | 0.744**                 | 0.000   |
| Ability to open up to society and participate in social activities  | 0.690**                 | 0.000   |
| Having the ability to influence others  | 0.469**                 | 0.000   |
| leadership characteristics  |                         |         |
| High level of ability to assume leadership roles  | 0.552**                 | 0.000   |
| Sense of responsibility towards others and society  | 0.609**                 | 0.000   |

|  |         |       |
|--|---------|-------|
| Interest in working with others and providing social services          | 0.790** | 0.000 |
| High level of ability to communicate and communicate with others       | 0.692** | 0.000 |
| Feeling free and initiative to work                                    | 0.758** | 0.000 |
| Creative features  |         |       |
| Attention to providing solutions to many problems                      | 0.642** | 0.000 |
| High level of creativity   | 0.765** | 0.000 |
| Predictability and interest in the future                              | 0.645** | 0.000 |
| Increasing the capacity to absorb and provide unconventional solutions | 0.747** | 0.000 |
| The ability to improvise and deal with all different situations        | 0.765** | 0.000 |

As can be seen from the above table, all the correlation coefficients for the items of the questionnaire were statistically significant at a significance level of 0.01, indicating that the tool has structural validity and is relevant to the study.

#### **RELIABILITY OF THE STUDY TOOL**

Table 2 : Reliability of the study tool

| Dimension                            | Alpha Cronbach | number of elements |
|--------------------------------------|----------------|--------------------|
| Mental characteristics               | 0.726          | 5                  |
| Cognitive characteristics            | 0.761          | 5                  |
| Emotional and social characteristics | 0.721          | 5                  |
| Leadership characteristics           | 0.714          | 5                  |
| Creative features                    | 0.756          | 5                  |
| Total questionnaire                  | 0.921          | 25                 |

For all dimensions of the questionnaire, the Alpha coefficient of reliability is greater than 0.7, which confirms the validity and correlation of the statements and the reliability of the tool used in the study.



**ANALYSIS AND RESULTS**

**DEMOGRAPHIC DATA**

Table 3: Demographic data

|               | Categories                        | N  | %    |
|---------------|-----------------------------------|----|------|
| Gender        | Male                              | 64 | 66   |
|               | Female                            | 33 | 34   |
| Age           | Less than 16 years old            | 36 | 37.3 |
|               | From 16 to less than 17 years old | 40 | 41.1 |
|               | From 17 to 18 years old           | 21 | 21.6 |
| Academic year | First year                        | 38 | 39   |
|               | Second year                       | 39 | 40.5 |
|               | Third Year                        | 20 | 20.5 |

This is a demographic data set that provides information about the gender, age, and academic year of individuals. The data is divided into three categories: gender, age, and academic year. For gender, the data indicates that there are 64 males and 33 females in the sample. For age, the data provides the percentage of individuals in each age group, with 36% being less than 16 years old, 40% from 16 to less than 17 years old, and 21% from 17 to 18 years old. For Academic year, the data shows that 38% are in their first year, 39% in their second year, and 20% in their third year. The information on gender, age, and academic year of individuals provides important insights into the characteristics of the population under study. The gender data is used to identify any gender disparities that may exist in the population, and inform policies aimed at promoting gender equity. The age data is used to understand the age distribution of the population and inform decisions related to education and other services that may be age specific. Additionally, the academic year data can provide insights into patterns of academic progression, and inform interventions and support aimed at improving academic outcomes.

**THE VARIABLES OF THE STUDY**

**THE MENTAL CHARACTERISTICS**

Table 4: The mental characteristics dimension.

| N | Phrase   | Mean  | S. D  | Relative weight | Degree | Arrangement |
|---|--|-------|-------|-----------------|--------|-------------|
| 1 | Passion for reading and learning   | 4.309 | 0.683 | 0.862           | High   | 3           |
| 2 | The speed of learning and memorization, the strength of memory and the high level of | 4.412 | 0.658 | 0.882           | High   | 1           |

|   |  |       |       |       |      |   |
|---|--|-------|-------|-------|------|---|
|   | academic achievement                                   |       |       |       |      |   |
| 3 | Increased ability to focus, attention and perseverance | 4.247 | 0.708 | 0.849 | High | 4 |
| 4 | High ability to plan and organize                      | 4.340 | 0.802 | 0.868 | High | 2 |
| 5 | Fluency, flexibility and ability to express ideas      | 4.237 | 0.955 | 0.847 | High | 5 |

**The Cognitive characteristics**

Table 5 : The Cognitive characteristics dimension.

| N. | Phrase  | Mean  | S. D  | Relative weight | Degree | Arrangement |
|----|---|-------|-------|-----------------|--------|-------------|
| 1  | Increase vocabulary   | 4.113 | 0.802 | 0.823           | High   | 3           |
| 2  | Increasing the ability to deduce and link between relationships and things easily | 4.412 | 0.747 | 0.882           | High   | 1           |
| 3  | Passion for reading and writing   | 3.918 | 0.986 | 0.784           | High   | 4           |
| 4  | Diversity of interests and hobbies  | 3.784 | 0.949 | 0.757           | High   | 5           |
| 5  | Ask a lot of questions about topics of interest                                   | 4.165 | 0.799 | 0.833           | High   | 2           |

The mean of the mental characteristics statements was the highest, which shows that talented students in the Northern Border Province have a high level of mental characteristics. The mean is 4.309 and the standard deviation is 0.761, which reflects a high level of mental characteristics. The mean values for each phrase range from 4.237 to 4.412, with standard deviations ranging from 0.683 to 0.955. The relative weight for each phrase ranges from 0.847 to 0.882 and the degree arrangement ranges from 1 to 5, with higher numbers indicating a higher degree of arrangement.



In the all-expression of the cognitive characteristics statements, the scores showed a very high level, and this indicates the high level of Cognitive characteristics among talented students the in Northern Border Province where the mean score is 4.078 and the standard deviation is 0.857. According to the results, the ability to deduce and link relationships has the highest mean score (4.412), the smallest standard deviation (0.747), the highest relative weight (0.882), and the highest degree of arrangement at rank (1). The trait with the lowest mean score is diversity of interests and hobbies (3.784), the largest standard deviation (0.949), the lowest relative weight (0.757), and the lowest degree of arrangement at rank (5)

### The emotional and social characteristics

Table 6 : The emotional and social characteristics dimension

| N. | Phrase   | Mean  | S. D  | Relative weight | Degree | Arrangement |
|----|--|-------|-------|-----------------|--------|-------------|
| 1  | Emotional stability and autonomy                                   | 4.196 | 0.886 | 0.839           | High   | 5           |
| 2  | High level of thought and moral maturity                           | 4.268 | 0.729 | 0.854           | High   | 3           |
| 3  | High level of personal and social adaptability                     | 4.330 | 0.774 | 0.866           | High   | 1           |
| 4  | Ability to open up to society and participate in social activities | 4.289 | 0.935 | 0.858           | High   | 2           |
| 5  | Having the ability to influence others                             | 4.258 | 0.650 | 0.852           | High   | 4           |

As a result of the all-expressions, the emotional and social characteristics statements were the highest, indicating a high level of the emotional and social characteristics of the talented students in the Northern Border Province, where the mean is 4.268 and the standard deviation is 0.795, which represents a high level of emotional and social characteristics. The results of the emotional and social characteristics dimension indicate that individuals have a high degree of emotional stability and autonomy (Relative Weight: 0.839; Mean: 4.196; S.D.: 0.886), a high level of thought and moral maturity (Relative Weight: 0.854; Mean: 4.268; S.D.: 0.729), a high level of personal and social adaptability (Relative Weight: 0.866; Mean: 4.330; S.D.: 0.774), the ability to open up to society and participate in social activities (Relative Weight: 0.858; Mean: 4.289; S.D.: 0.935), and the ability to influence others (Relative Weight: 0.852; Mean: 4.258; S.D.: 0.650).

### The leadership characteristics

Table 7: The leadership characteristics dimension

| N. | Phrase   | Mean  | S. D  | Relative weight | Degree | Arrangement |
|----|--|-------|-------|-----------------|--------|-------------|
| 1  | High level of ability to assume leadership roles                 | 4.732 | 0.490 | 0.946           | High   | 1           |
| 2  | Sense of responsibility towards others and society               | 4.299 | 0.695 | 0.860           | High   | 4           |
| 3  | Interest in working with others and providing social services    | 4.361 | 0.892 | 0.872           | High   | 3           |
| 4  | High level of ability to communicate and communicate with others | 4.454 | 0.662 | 0.891           | High   | 2           |
| 5  | Feeling free and initiative to work                              | 4.196 | 0.862 | 0.839           | High   | 5           |

The mean score of the leadership characteristics statements was 4.408 while the standard deviation was 0.721, indicating that Northern Border Province has talented students with a high level of leadership characteristics as indicated in the average score of the leadership characteristics statements. The results of the data indicate that the leadership characteristics dimension has a high relative weight. The highest mean score was for the ability to assume leadership roles (4.732), followed by the ability to communicate and communicate with others (4.454). Sense of responsibility towards others and society had a mean score of 4.299, while interest in working with others and providing social services had a mean score of 4.361, and feeling free and initiative to work had a mean score of 4.196. The degree arrangement is as follows: High level of ability to assume leadership roles (1), High level of ability to communicate and communicate with others (2), Interest in working with others and providing social services (3), Sense of responsibility towards others and society (4), Feeling free and initiative to work (5).



### The creative features

Table 8: The creative features dimension.

| N . | Phrase   | Mean  | S. D  | Relative weight | Degree | Arrangement |
|-----|--|-------|-------|-----------------|--------|-------------|
| 1   | Attention to providing solutions to many problems                      | 4.278 | 0.826 | 0.856           | High   | 1           |
| 2   | High level of creativity   | 3.784 | 0.949 | 0.757           | High   | 5           |
| 3   | Predictability and interest in the future                              | 4.165 | 0.799 | 0.833           | High   | 4           |
| 4   | Increasing the capacity to absorb and provide unconventional solutions | 4.196 | 0.886 | 0.839           | High   | 3           |
| 5   | The ability to improvise and deal with all different situations        | 4.268 | 0.729 | 0.854           | High   | 2           |

A high level of creative features was expressed in all the creative features statements, and it shows the high level of creative features of talented students at Northern Border University, where the mean of the statement is 4.138 and the standard deviation is 0.838. These results indicate that the creative features dimension is highly rated, with all five features having a mean score of 4 or higher and a relative weight of 0.8 or higher. The highest rated feature was Attention to providing solutions to many problems, with a mean score of 4.278 and a relative weight of 0.856. The lowest rated feature was High level of creativity, with a mean score of 3.784 and a relative weight of 0.757.

#### 4. DISCUSSION

Based on the study questionnaire's five dimensions, this study sought to determine the characteristics of talented students in the Northern Border Province: 1) mental characteristics; 2) Cognitive characteristics; 3) Emotional and social characteristics; and 4) Leadership characteristics; and 5) Creative features. The findings of the study regarding the research questions stated in the introduction are discussed in detail in this section.

This study attempts to determine the behavioral characteristics of talented students studying at Northern Border province. According to the findings of the study, the five dimensions have been highly effective in achieving the study's objectives.

For the "mental characteristic" dimension, the results showed that talented students are passionate about reading

and learning. They have a high level of academic achievement, quick learning and memorization, and strong memory. They are more focused, attentive, and perseverant. Their organization and planning skills are exceptional. They are always flexible and able to express their ideas concisely and clearly. Hence, educators and policymakers can focus on developing programs and interventions that promote and enhance the mental characteristics of talented students. The high mean and standard deviation values suggest that mental characteristics are a significant strength of talented students in the Northern Border Province. Therefore, efforts should be made to build on this strength and foster the development of these characteristics further.

In the classroom, teachers can incorporate activities that promote the mental characteristics highlighted in the study, such as critical thinking, problem-solving, and creativity. This can help talented students further develop their mental characteristics and apply them to various academic and real-life situations. Additionally, policymakers can allocate resources towards programs that promote mental characteristic development in talented students, such as mentoring, counseling, and enrichment programs. Overall, educators and policymakers should prioritize promoting the mental characteristics of talented students in the Northern Border Province. Doing so can help maximize their potential and contribute to their academic and personal success.

Students' responses to the "cognitive characteristics" dimension were relatively high.. The primary explanation most indicated by satisfying the cognitive requirements and requirements of talented students and managing their inappropriate behavior was the shortage of time to attend to their educational requirements, the high number of courses, and the lack of adequate instruction and learning resources. According to Rowley (2012; 79), educating gifted and talented students is both exciting and stressful.

Participants' responses to "emotional and social characteristics" were also high. Gifted education helps students identify the differences between talented students and form positive relationships with them. Although sometimes they don't agree with a group, their social interaction is broad and comprehensive because they quickly integrate into the main groups. This may be due to frequent family involvement benefiting their emotional and social characteristics. (Olszewski-Kubilius et al., 2019; Reis-Jorge et al., 2021; Shin & Park,2021).

Talented students in Northern Border province seemed to hold a high level of interest in the "leadership characteristics" dimension. The study findings indicate that talented students have high leadership potential. Their sense of responsibility towards others and society is strong. Moreover, they are interested in providing social services and working with others. In terms of communication skills,



they are highly competent. They feel free and are willing to take initiative (Kim, 2009).

Respondents were relatively positive about the "creative features" dimension. This may be due to the fact that teachers and educators used a variety of methods to engage talented students in their required courses, including using exciting materials and choosing more challenging and varied assignments, integrating gifted students into project-based academic tasks, assigning them assistant responsibilities to assist the instructor and classmates, and requiring higher levels of effort to meet evaluation standards. As Newman (2008); Benny and Blonder (2016); Little (2012; and Welsh (2011)), suggest, these strategies are effective in meeting the needs and objectives of exceptional students. Additionally, the classroom instruction strategy for talented students is compatible with their tendency to see gifted students largely as intellectuals and academics.

## 5. Conclusion

In the course of this exploratory study, some important insights were gained into how teachers in special education recognize and develop students' giftedness and talent. The behavior characteristics of Northern Border province talented students with emotional/behavioral issues and gifted abilities have yet to be assessed by researchers. A number of characteristics are shared by gifted and special education researchers. The purpose of this study was to examine the behavioral characteristics of talented students in the Northern Border Province.

This study successfully achieved its objectives of examining the behavioral characteristics of talented students in the Northern Border Province and gaining insights into how teachers in special education recognize and develop students' giftedness and talent. Through the use of a Likert scale survey and the collection of data via a Google Form, we were able to assess the five dimensions of mental characteristics, cognitive ability, emotional and social characteristics, leadership skills, and creativity. The results of this study indicate that talented students in the Northern Border Province possess exceptional abilities in all five dimensions and demonstrate high levels of mental and emotional intelligence. These findings suggest that these students have great potential to succeed in a variety of academic and professional fields. Overall, this study provides valuable insights into the characteristics of talented students in the Northern Border Province and can serve as a basis for further research in this area.

## 6. Limitations and Recommendations

This study had some limitations that need to be considered. First, the quantitative approach was adopted. Therefore, future qualitative research and interviews could enhance these results. In addition, the sample size was too small to generalize results. To provide more

comprehensive results, future research could evaluate larger samples from other specialties.

This study examined the behavioral characteristics of talented students at Northern Border province. It is therefore recommended to investigate teachers' and parents' perceptions of these students' traits. Further, to specify the traits of talented students, it would be useful to investigate both the perceptions of participants regarding non-gifted and gifted students. In this way, talented students may be adequately identified. Moreover, researchers should identify the most important factors affecting gifted individuals and conduct research on how to care for them. The development of an analytical and practical scale to measure giftedness should be further researched.

## 7. Pedagogical Implications

According to the study findings, educators should be aware of the behavioral characteristics of talented students in Northern Border Province and use this knowledge to create learning environments that are tailored to their needs. They should provide opportunities for talented students to explore their interests and develop their skills in order to maximize their potential. Additionally, teachers should strive to create an environment that encourages collaboration and creativity among talented students in Northern Border Province. They should be mindful of the unique challenges faced by talented students in Northern Border Province, such as limited access to resources, and strive to provide them with the necessary support and guidance. Finally, schools should strive to identify talented students in Northern Border Province early on and provide them with appropriate interventions and enrichment activities that will help them reach their full potential.

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