

# Self-Efficacy Among Gifted Students in Gifted Care Centers in Kingdom of Saudi Arabia

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## **Abstract**

*The current study aimed to identify the Self-efficacy among gifted students in gifted schools in Kingdom of Saudi Arabia and to identify the differences between averages of Self-efficacy depending on the variable (gender), and the sample of the study consisted of (214) talented, the study relied on the descriptive approach, and to achieve the objectives of the research the researcher used Self-efficacy Scale which developed by him applied to the study sample. The study showed the following results: the averages of all dimensions and the overall average of the self-efficacy scale ranged between (3.19-3.31), at a medium level and there are no statistically significant differences at the significance level ( $\alpha=0.05$ ) for the gender variable on self-efficacy.*

**Keywords:** *Self-Efficacy, Gifted Students.*

## **INTRODUCTION**

Talented people are a national treasure that plays a leading role in the development of the nation. Hence, they should be cared for, nurtured, and their special requirements should be provided in an environment that encourages and develops talent and invests their latent energies. Therefore, developed countries have been interested in identifying gifted students from a young age, using many measures and tests, and identifying their readiness, abilities, and the type of their talents, even before entering school, in cooperation with parents and kindergarten teachers (Shaqir, 2001).

The interest of the Arab countries in educating the gifted began late, as it began officially at the end of the twentieth century and the beginning of the twenty-first century, where the foundation of this education was laid in the eighties, and interest in it began to spread in the Arab countries, because interest in the gifted helps in the prosperity of the nation and advances the wheel of development (David , 2018).

The concept of talent is a scientific term to define gifted individuals. It is one of the terms that has sparked debate among scientists to explain it. It was initially viewed as one-sided and related to intelligence only. Over time, this view expanded with the emergence of scientific theories resulting from scientific research to include several aspects such as intelligence, academic achievement, creativity, arts, and leadership (Kaufman et al., 2012).

At the local level, the definition adopted by the Ministry of Education in the Kingdom of Saudi Arabia is close to the definition of Marland (1971), as the definition indicates that a gifted student is one who has an unusual aptitude or ability or distinguished performance from the rest of his peers in one or more areas that society values, especially in the areas of mental excellence, innovative thinking, academic achievement, and special skills and abilities, and needs special educational care that the school can provide for him in the regular curriculum (Al-Jughaiman, 2018).

The gifted child is characterized by high self-confidence, sometimes reaching the point of indifference to others, and has high energy and a high level of activity. He accepts ambiguity and complexity, and is attractive to them. He does not give in fluidly, is persistent, and is committed to his tasks until he completes them. He does not feel the pressure of work, nor does he feel his tension or anxiety during his tasks, no matter how large they are. He clearly has a love of adventure and discovery, and is not afraid of failure. He can defend his ideas and justify his positions, even if this forces him to confront people who are hostile to him (Jarwan, 2008).

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The gifted child has a high focus in achieving his goals, so he fights and faces the difficulties and obstacles he faces with various solutions and benefits from the circumstances and events he is exposed to, whether positive or negative. He also has the ability to balance in choosing the work that suits his performance and energy in order to achieve the accomplishments in what he adopts from work, and he searches for great accomplishments and does not search for a reward in achieving a small goal. He has the ability to differentiate between good and bad and the methods that lead to successes and wonderful ends, and he trusts his abilities and himself and develops them and uses them in a realistic and practical way. He is able to understand himself and his relationship with the world around him, and the gifted child is also distinguished by reading between the lines and seeing what his ordinary colleagues do not see (Sternberg; et al, 2009).

Self-efficacy is a theoretical concept developed by Bandura in (1977), and he showed that self-efficacy has a significant impact on an individual's behavior, as it determines the degree of effectiveness of expected behavior, and the amount of energy that an individual can use to solve problems. An individual derives self-efficacy from four sources: the individual's achievements, alternative experiences, verbal persuasion, and the individual's psychological or physiological state (Abu Hashem, 2007). The roots of self-efficacy are linked to Bandura's social cognitive theory (Bandura, 2001), as Bandura confirmed in his theory that it has a major role in motivating people to achieve creativity, and this effectiveness increases when an individual achieves something or sees other individuals similar to him performing the work successfully. Self-efficacy is defined as a motivational state during which an individual's ability to perform certain tasks to achieve his goals is measured, and it means what the individual believes about his ability to achieve the work, not what he actually possesses (Bandura, 2007).

Bandura believes that self-efficacy is affected by two types of expectations: 1- Efficacy expectations: These are the individual's self-beliefs about his ability to accomplish tasks efficiently or about what he can accomplish. 2- Outcome expectations: These are specific evaluations that the individual gives himself about the results he achieves or seeks. Bandura identifies three components of self-efficacy related to professional and academic performance. He believes that an individual's self-beliefs express his/her self-efficacy and differ according to these components: 1- Magnitude: This refers to the level of strength of an individual's motivation to perform in different fields and situations. This level varies according to the nature or difficulty of the situation. Magnitude appears more clearly when tasks are arranged according to the level of difficulty and differences between individuals in expectations of effectiveness. They can be defined as simple, similar tasks of medium difficulty, but they require a difficult level of performance in most of them. With the high level of self-efficacy among some individuals, they do not accept challenging situations. This may be due to the low level of experience and previous information. 2- Generality: This component refers to the transfer of self-efficacy from one situation to other similar situations. An individual can succeed in performing tasks compared to his/her success in performing similar tasks and tasks. 3- Strength: The strength of an individual's self-efficacy is determined in light of his/her experiences. Previous, and how appropriate they are to the situation, as weak beliefs about effectiveness make the individual more susceptible to being affected by what he observes, but individuals with strong beliefs about their own effectiveness have the ability to persevere in the face of poor performance (Bandura, 1977).

### **Previous Studies**

In Merriman study (2012) which purposed to document the best practices for helping gifted elementary school students which develop their self-efficacy. Interviews with educators of gifted students reveal strategies elementary school teachers can implement in their mainstream classrooms to help gifted students expand their learning and develop the self-efficacy necessary to become confident, inquisitive, life-long learner. The results showed Gifted students need less direct instruction. It is more important during teaching to expand on concepts beyond the scope of the general curriculum. Engaging in class discussions and application of materials are ways to expand curriculum. By assigning talented students to implement independent, self-directed special learning projects always available as an option for them is a successful way to expand curriculum, and reducing homework that increases anxiety and stress for gifted students.

In Waits' study (2018) to determine differences of self-efficacy of gifted or talented, the instrument used to gather information for thus study on student self-efficacy was the Mathematics Self-Efficacy Scale (MSES).

Descriptive and inferential statistics were used to analyze the data. Participants in the study were randomly assigned to the heterogeneous or homogeneous groups by their schools and were not controlled by the researcher. Students within the groups were chosen as participants based on their math ability and scores on the seventh grade TCAP test. The population consisted of 357 gifted or talented eighth grade math students in 6 school districts in Northeast Tennessee. The results of this study does not support or discourage the practice of acceleration by retaining 7 of the 9 null hypotheses that there are no significant difference in self-efficacy scores between homogeneous grouped eighth grade math students who were placed in accelerated coursework by taking Algebra I and those students who were heterogeneously grouped in a regular eighth grade math class.

Akkaya and Tosik (2021) also conducted a study to investigate the relationship between the Relationship between the Perfectionism and Self-Efficacy of Gifted Children, The study group of the research consists of 507 students (3rd, 4th, 5th, 6th, 7th and 8th grades) studying in BİLSEM (Science and Art Centers) in various provinces of Turkey. The obtained data were analyzed with the descriptive and complementary statistical method. There is a significant difference according to the independent variables of school type, grade levels, and number of siblings and ranking among siblings, there is a significant difference in class levels, periods of study in BİLSEM, and ranking independent variables between siblings. It was concluded that there was no significant and positive relationship between the answers given by gifted students to the Child and Adolescent Perfectionism Scale and the answers they gave to the Children's Self-Efficacy Scale.

Al-Asqa (2022) also conducted a study to investigate the relationship between cognitive beliefs and creative self-efficacy among gifted students in the Kingdom of Saudi Arabia. The Al-Juhaiman and Ayoub (2010) cognitive beliefs scale and the Abbott (2010) creative self-efficacy scale, translated by Al-Zoubi (2014), were used. It was found that the level of creative self-efficacy among gifted male and female students was high.

Alabbasi et al., (2023) study aimed to examine the difference in self-efficacy between gifted and non-gifted students. In total, 25 studies ( $m = 70$ ;  $N = 42,736$ ) were analyzed using a three-level meta-analytical approach. The results indicate that gifted students had moderately higher self-efficacy than their non-gifted peers. However, we observed symptoms of publication bias and small-study effects. After correcting for these effects, there is a small to moderate difference between the groups. Moderator analyses showed that the self-efficacy domains (academic and socio-emotional), sex, and age moderated the overall effect size obtained, while culture (East vs. West) and the general, mathematical, and verbal self-efficacy domains did not significantly differentiate the obtained effects. These findings support an argument against exaggerations of differences between gifted students and their non-gifted peers.

### **The Study Problem and Its Questions**

Based on previous studies that the researcher reviewed, such as the study by Merriman (2012) which showed that there are practices that increase the self-efficacy of the gifted. And Waits' study (2018) which showed that there are no significant difference in self-efficacy scores between homogeneous grouped eighth grade math students who were placed in accelerated coursework by taking Algebra I and those students who were heterogeneously grouped in a regular eighth grade math class. And Al-Asqa (2022) study which emphasizes that the level of creative self-efficacy among gifted male and female students was high. And Alabbasi et al., (2023) study which showed that gifted students had moderately higher self-efficacy than their non-gifted peers. Hence, the researcher had a question about the self-efficacy of the gifted and whether it is a basic indicator of talent, as he noticed through his review of the gifted programs and their characteristics that they have the courage to carry out tasks driven by their confidence in their ability to perform them. The aim of the study was represented by the main question:

What is the degree of self-efficacy among gifted students in Kingdom of Saudi Arabia region schools?

Are there statistically significant differences between the degree of self-efficacy of gifted students in Kingdom of Saudi Arabia region attributed to the gender variable?

### **Objectives of the Study**

The study aimed to the following:

Detecting the degree of self-efficacy among gifted students in Kingdom of Saudi Arabia region schools

Investigate the statistically significant differences between the degrees of self-efficacy of gifted students in Kingdom of Saudi Arabia region attributed to the gender variable.

## Methods And Materials

### Participants

The study sample consisted of 214 students, (112) males and (102) females, from two schools in Kingdom of Saudi Arabia.

### Study Tool (self-efficacy scale)

The researcher reviewed previous studies and benefited from them in developing a self-efficacy scale, which consists of four domains (initiative, effort, perseverance, and effectiveness capacity). It consists of forty paragraphs that are answered on a five-point Likert scale (very large, large, medium, small, very small), and then he extracted its psychometric properties.

### Validity of the Tool

**Validity of the Arbitrators:** The scale was presented to eight specialized arbitrators to ensure the soundness of the linguistic structure, the suitability of the items for the age group of the sample, and the item's belonging to the domain. Their observations were taken into account by adopting an agreement of six arbitrators at a rate of (75%).

**Construct Validity:** The scale was applied to a sample of the study population and from outside its sample of (30) students (male and female), where the correlation coefficients of each field with the total score of the scale ranged between (0.89-0.93), which is acceptable for the purposes of this study, and is as in Table (1).

**Table (1): Pearson correlation coefficients between the total and sub-dimensions of the self-efficacy scale**

Domain	Initiative	effort	perseverance	effectiveness capacity
Pearson correlation	0.89**	0.91**	0.93**	0.895**

\*\* Statistically significant at ( $\alpha < 0.05$ )

### Reliability

The reliability was found in two ways: Cronbach's alpha equation, and the Spearman and Brown equation, and the results of these procedures are shown in Table (2), where the reliability ranged between (0.783 - 0.850), which are high reliability coefficients.

**Table (2): self-efficacy reliability**

Reliability parameter name	Amount of reliability coefficient
Alpha Cronbach	0.850
Spearman Brown	0.783

## RESULTS

Results related to the first question: What is the degree of self-efficacy among gifted students in Kingdom of Saudi Arabia region schools?

To determine the degree of self-efficacy among gifted students in Kingdom of Saudi Arabia from the point of view of the study sample, the arithmetic means and standard deviations of their responses were calculated as in Table (3)

**Table (3): Arithmetic means and standard deviations for self-efficacy**

Domain	Arithmetic means	standard deviations
Initiative	3.22	8.099

Effort	3.2	7.473
perseverance	3.19	8.849
effectiveness capacity	3.31	8.076
Total	3.23	116.42

It is noted from Table (3) that the averages of all dimensions and the overall average of the self-efficacy scale ranged between (3.19-3.31), at a medium level, where the ability to be effective came in first place with an arithmetic average of (3.31) and a standard deviation of (8.076), followed by the initiative dimension with an arithmetic average of (3.22) and a standard deviation of (8.099), and in last place perseverance with an arithmetic average of (3.19) and a standard deviation of (8.849).

The researcher attributes these results to the characteristics of gifted students, such as their high mental abilities, their ability to solve problems, and their love of success, which makes their previous successful experiences enhance self-efficacy. However, some challenges arise that may prevent this effectiveness from rising and remaining at an average level, in terms of teachers employing teaching strategies that do not suit their mental levels and the inability of curricula to challenge their thinking, in addition to their exposure at times to frustration from comments from those around them, whether normal students or others.

The average degree of self-efficacy may be attributed to their lack of experience and their weak ability to implement situations with strength, especially if the teacher overestimates their abilities and the tasks are above their level, and does not gradually increase the level of difficulty of the tasks, which makes them feel stressed, especially if they have a high level of perfectionism.

This result may be attributed to the students' success in solving some problems previously and their inability to solve other problems, which reinforces the students' beliefs about their self-efficacy. The level of their effectiveness increases with the increase in the students' efficiency in the study processes in addition to the social environment.

This result is partially consistent with the result of the study (Alabbasi et al., 2023).

Results related to the second question: Are there statistically significant differences between the degrees of self-efficacy of gifted students in Kingdom of Saudi Arabia region attributed to the gender variable?

To answer this question, the researcher extracted the arithmetic means and standard deviation of the study variable according to gender, then conducted a T-test to reveal the effect of gender on the study variable. The effect of gender on self-efficacy was explained as follows table (4):

**Table (4): T-test to detect the effect of gender on self-efficacy and its sub-domains**

Domain	gender	Number	Arithmetic means	standard deviations	DF	T	Sig
Initiative	Male	112	1.4	1.54	212	1.73	0.08
	Female	102	1.71	1.64			
Effort	Male	112	2.72	1.16	212	0.15	0.88
	Female	102	2.74	1.26			
perseverance	Male	112	2.33	0.86	212	0.69	0.49
	Female	102	2.27	0.91			
effectiveness capacity	Male	112	2.04	0.94	212	0.56	0.58
	Female	102	2.1	1.07			
Total	Male	112	8.36	4.51	212	0.92	0.36
	Female	102	8.83	5			

It is noted from Table (4) that the value of (t) for total self-efficacy reached (0.92) with a statistical significance of (0.36) which is greater than ( $\alpha=0.05$ ), and this indicates that there are no statistically significant differences at the significance level ( $\alpha=0.05$ ) for the gender variable on self-efficacy, and that the value of (t) for the Initiative domain reached (1.73) with a statistical significance of (0.08) which is greater than ( $\alpha=0.05$ ), and this indicates that there are no statistically significant differences at the significance level ( $\alpha=0.05$ ), and that the value of (t) for Effort reached (0.15) with a statistical significance of (0.88) which is greater than ( $\alpha=0.05$ ), and this indicates that there are no statistically significant differences at the significance level ( $\alpha=0.05$ ), and that the value of (t) for the Perseverance domain reached (0.69) with a statistical significance of (0.49) which is greater than

( $\alpha=0.05$ ), and this indicates that There are no statistically significant differences at a significance level of ( $\alpha=0.05$ ),

The researcher attributes these results, “the absence of statistically significant differences in the gender variable in self-efficacy among gifted students, to the fact that these students, males and females, live in the same social and cultural context, and that they study the same curricula, and that their teachers receive the same training and qualification and receive the same instructions from the supervisory body, which makes them receive similar educational experiences and similar tests, in addition to the fact that they were classified as gifted in the same way, which makes them similar in their characteristics and abilities and have similar ambition and desire for academic excellence.”

At the end of this study, and based on its results, the research recommends working on improving the curricula and activities provided to gifted students and working on increasing the qualification of teachers and training them to deal with this category of students.

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