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THE LEVEL OF GIFTED STUDENTS POSSESSION OF INNOVATIVE THINKING

Dr. Ali Hamza Hadi Hilal
University of Kufa / Faculty of Basic Education
ali.alkhalidy@uokufa.edu.iq

Dr. Mushtaq Fakhir Dhaidan
Directorate of Education Dhi Qar
Musht7@utq.edu.iq

A B S T R A C T

It aimed was to identify the level of gifted students' possession of innovative thinking.
The researcher used the descriptive analytical approach to suit the variables of the study, and the study community consisted of students of all gifted schools in Iraq, which are (7) schools, and the study sample was chosen in a deliberate way to reach the number of members of the study community (320) students for the academic year 2022/2021, and the researcher prepared the study tool, which is the questionnaire, and it was distributed to the members of the study sample consisting of (34) students .
After conducting the statistical analysis process, the study found the following:

- The level of gifted students' possession of innovative thinking with a grade (Applies to me sometimes) with a grade of (moderate).
- There are no statistically significant differences at the level of statistical significance (0.05=α) between the averages of the responses of gifted students attributed to the variable (gender, scientific stage).

K E Y W O R D S

Possession level, innovative thinking, gifted individuals. A dialect-specific proverb, adage-proverb-phrase.

Introduction

Firstly: Research problem:

Perhaps among the riches that God Almighty gave our dear country and one of the most precious (gifted), these elite human beings who possess special aptitudes and abilities that move them towards discrimination and creativity, those capabilities that we must discover, develop and nurture; In order for our country to rise and live a decent life, through their ideas, distances are shortened, and costs are available, and time is reduced, all thanks to their talent that distinguished them from their peers , a diverse talent in different walks of life .

From this point on; The gifted are an important category among the categories covered by special education programmes, and those working on education and specialists in our third world have realized the value of this wealth and have begun - albeit late - to organize attempts to discover and nurture it, following the tracks of the developed world at times and striving for themselves independently at other times, so the experiences of special education appeared. To discover and care for gifted people in some countries of the Arab world, including the Iraqi experience of caring for the gifted (special education: its reality and ways to develop it, 1988: 13), the Egyptian experience (Suleiman, 1992: 20), the Yemeni, the Gulf, the Sudanese, the Jordanian, and the Libyan (Attaallah, 2008). : 9-10).

One of the most important issues that preoccupied researchers in the field of education is mental abilities, especially innovative thinking. The process of innovative thinking still needs more scientific research, especially about the categories that are described as enjoying this style of thinking, especially gifted people, scientists, inventors, and writers. authors, athletes, artists, and leaders.

In view of the fact that many official Arab bodies responsible for the discovery of gifted people adopt the criterion of innovative thinking among the diagnostic tests for talent, the Arab Organization for Education, Culture and Science issued a guide to methods of detecting gifted people in the basic education stage in 1996, among them innovative thinking. The organization recommended the adoption of these tests in the process of diagnosing talent in Arab countries, and this was applied in Egypt, Tunisia, the United Arab Emirates, Sudan, the Arab Gulf States (including Saudi Arabia), Jordan, Oman and Yemen (Atallah, 2008: 4-10).

These tests were also adopted in Iraq (until the preparation of this research), where innovative thinking is adopted within the tests of the talent diagnosis process. (Khazraji, 2003: 18).

Therefore, the researcher felt that there is an urgent need to study the extent to which gifted students have this type of thinking , taking advantage of his field work in the schools of gifted people, and thus this study is a prelude to other experimental studies aimed at developing this thinking to what is found in a weak or medium way, or studying other types of thinking in this group of learners.

In light of this, the problem of the study is determined in an attempt to answer the following two questions:

- **The first question:** (What is the level of possession of gifted students for innovative thinking?)
- **The second question**:(Are there statistically significant differences at the level of significance (0.05) for the level of possession of gifted students of innovative thinking due to the gender variable and the school stage?).

Second: **Significance of the research**:

The theoretical significance and practical importance were discussed, as follows:

1- Theoretical Significance

The importance of this study is highlighted by the interest in innovative thinking, because of its great importance in the educational process; because of the capabilities of innovative thinking of great benefit to gifted students at all stages of study so that they reach the maximum degree of maturity and openness, and thinking in a systematic scientific manner based on innovation not only on the educational process, but this moves to the different areas of life and this is the supreme goal of the educational process, conscious nations are working to build the human being; to create, think and develop the existing and innovate the new with his mind yoke(Baon, 2016: 4).

The importance of this study follows from the importance of the social segment related to it, which is the gifted segment, and many of the general public, as well as specialists, recognize its importance and feel the need for it and consider it an indispensable wealth for every society, which in the Arab world suffers from misdiagnosis and resorts to migration, and the importance of several aspects: scientific, practical, psychological, social and economic, including showing the validity of innovative thinking in diagnosing gifted people (Ghali, 2016: 6).

2- Practical Significance:

The importance of this study is demonstrated by the addition of new knowledge through the results that will be reached, which can be relied upon to support gifted students in the process of innovative thinking, and benefit from their experiences and skills in the complex problems that the labor market can go through in the future, and discover effective solutions that help solve the crises we are going through at the present time.

Research can be used to choose the appropriate teaching methods for students to develop innovative thinking, which is of great importance to teachers who teach gifted people, as well as its practical importance to curriculum developers as it can be used in the development and evaluation of curricula for gifted people .

Third: - Objectives of the study: -

The study aims to

1- Determine the level of possession of gifted students in the talented School in Dhi Qar(study sample) for innovative thinking.

2- Assisting in the development of curricula that are directly related to innovative thinking skills and activities.

3- Providing gifted students with innovative thinking skills and developing them.

4-

Fourth: Research limitations are as follows:

- **Objective limits:** The current study was limited to the level of possession of gifted students for innovative thinking for the academic year 2021-2022.
- **Temporal limitations** The current study was conducted during the second semester of the academic year 2021-2022 AD.
- **spatial limitations** The study was applied in the Directorate of Education of Nasiriyah affiliated to the General Directorate of Education in Dhi Qar.
- **Human limits**: The study will be limited to gifted students for the secondary level at Mohobi Dhi Qar School, specifically for grades (first intermediate, second intermediate, third intermediate, and fourth scientific) .

Fifth: Research Terminology

- **Level of Possession:** is the level of performance of gifted students (study sample) for innovative thinking included in the tool prepared by the researcher .
- **Innovative thinking:** It is the mental processes that lead to solutions, ideas, perceptions, artistic products, theories, and individual and new products (Barakat: 2010: 47).
- **The procedural definition of innovative thinking**: It is the set of grades that each of the gifted students obtain, as reflected in the characteristics of his degree, as such (1-11) is weak, (12-22) is average, (23-33) is high.

- **Gifted individuals** : "Those who have a genetic predisposition to be ignorant are able to produce a performance distinct from their peers in the mental and cognitive fields, so that it is reflected in the lives of people and their various activities, provided that they have the appropriate family and school environmental conditions, as well as the will, ambition, interest, motivation, and desire to excel" (Al-Zoughbi, 2003: 49-50).
- **The procedural definition of gifted individuals :** They are students in grades (first, second, middle, third and fourth scientific) in the Gifted School in Dhi Qar, which is one of the seven schools in Iraq whose students were selected according to certain conditions and tests that differ from the regular schools, and the number of students is small compared to other government schools.

Chapter Two

Theoretical frameworks and previous studies

This chapter includes a presentation of the theoretical literature related to the variables of the study in its first axis, while the second axis includes previous studies, which are as follows :

Theme 1: Theoretical Literature

Creative Thinking

Given that innovation is a way of life, it is represented in the patterns of self-realization in terms of meaning, purpose and purpose, and the full employment of the individual's energies and powers is more than just solving problems and reaching innovative outputs. The concept of innovation as a style and approach to life means looking at it as an activity practiced by the individual, and his way of life and his dealings with himself and everything that surrounds him in his environment, which represents the individuality of the person and the way he achieves himself and distinguishes him from others (Ibrahim, 2013: 123).

And innovation in language is like what came in Lisan al-Arab: The man invented eating the first fruits. On Friday morning, he spoke, and so on and so forth. And they said: Bakr hurried and left the mosque early and came to the prayer at the beginning of its time. And everyone who hastens to something: his firstfruits. And Saeed said in the interpretation of the hadeeth of Friday: Whoever comes early to Friday before the call to prayer, and if he does not come to it early, then he is early; As for creating it, he realizes the beginning of its time. It was said that the meaning of the two words is the same as an act and a fabrication; but it is repeated for exaggeration and emphasis(Ibn Manzoor: 2000: 131).

and knew (Torrance Innovative thinking is a process that makes the individual sensitive to problems, facing deficiencies and gaps in information, missing elements, dissonances, and the like, identifying difficulties, then searching for solutions, making guesses, formulating hypotheses about those deficiencies, testing hypotheses and re-testing them, and perhaps modifying and re-testing those hypotheses, and finally Calculation of results (Torrance, 1974: 8).

Levels of innovation

(Ammar and Mushrifi, 2005) identified five levels of innovation as follows:

1- **Level of Expressive Creativity**: This level consists of automatic fees and independent expression without the need for skill, originality or quality of production.

2- **Level of Productive Creativity:** This level restricts automatic free activity, adjusts it and improves performance in light of certain rules.

3- **Level of Inventive Creativity**: The most important feature of this level of invention and discovery, which ensure flexibility in the perception of new and unusual relationships between other groups were separate .

4- **Level of Emergent Creativity:** This type of innovation can be inferred from the emergence of a new theory or scientific law around which a new school of thought can flourish.

5- **Creativity Innovative level** This type of innovation is inferred from the individual's ability to develop and innovate, which ensures the use of the individual's photographic skills. (Ammar and Musharrafi, 2005: 41).

Methods of developing innovative thinking :

The researchers agreed on the possibility of learning innovative thinking skills, and recommended that it be a goal of educational institutions; the evidence for this is the design and development of curricula specifically to learn and develop innovative thinking skills in many countries in the world, and these programs are scientifically oriented by activating mental and cognitive processes, and focusing them on higher mental levels. There are methods that help develop innovation with regard to individual learning strategies, the most important of which are: programmed learning, computer-assisted learning, and learning through multimedia programs, especially as these media have proven effective in developing innovation (Adel, 2000: 12).

There are some instructions provided by (Torrance), which the teacher can guide in helping students develop their innovative thinking, as follows:

1- Encourage the learner as much as possible to do the things he loves, which he can perform better, otherwise he is afraid of falling in love with a topic or work and continue to perform with focus and depth .

2- Enlighten the learner and take his hand to recognize the limits of his abilities, understand them and boast of them, practice them, use them, benefit from them and enjoy them.

3- Helping the learner to free himself from the expectations of others about his role, and to avoid the roles that others try to impose on him.

4- Performing the role that the learner wants for himself, in a way that makes him better use of his abilities, and to continue to achieve his ambitions and dreams .

5- The teacher should embody the role of good role models for the learner.

6- The learner should avoid wasting his irreplaceable energy trying to be loved or surrounded by others.

7- The learner acquires the skill of autonomy.

8- The environment surrounding the learner is one of the main components that help the growth of innovation .

(Torrance, 1984: 13) mentioned in(Ibrahim, 2013: 51)

Gifted individuals

Since the second half of the twentieth century, the terms (giftedness) and (gifted) have been used to express superiority and the outstanding. It was used in the sense of creativity, which resulted in focusing on the abilities of originality, flexibility and fluency, and then it was used in the sense of special talents in a specific field such as music, arts and literature (Suleiman and Ahmed, 2001: 11).

At that point, talent was usually viewed as one-dimensional, a view that focused on the aspect of mental ability as a basis for talent, and then a new trend emerged that broadened this view, which is multidimensional, as it sees that non-mental dimensions are also important in talent, such as

personality traits, thinking patterns, and sensitivity to problems, and may be more important than mentality (Hany,&Heller, 1986: 68).

When the prevailing basic idea of talent as a general ability used the term "domain general talent" and the term "general talent", then the idea of talent developed due to attention to (special) talents (Special Gifteness). They are talents in which the gifted person excels in a specific field while all his abilities remain within the normal level or below the normal level (Babaeva, 2013: 112).

And the special talent can appear in any field in which the gifted person excels without others, and it may be called: (field-specific talent) (Domain Kontoyianni, Kattou, Pitta-Pantazi) (Christou, & Specific Giftedness, 2013: 291).

Gifted individuals Detection Methods

The process of identifying gifted students and identifying them is the first entry point for any project or program that aims to nurture them and unleash their energies. It is mentioned that there are several ways to detect gifted people, perhaps the most prominent of which is the use of achievement tests, and other means related to the school and the family in identifying the gifted (Ali, 2018: 47).

Among those methods:

First : Tests: They are of types, including:

1- Individual intelligence tests.
2- Academic achievement level.
3- Abilities and creativity.

Second: family role in detecting gifted individuals :

The features of the gifted personality are first formed while he is in the confines of his family during childhood in particular, and other stages of growth in general, as the family contributes to discovering and evaluating the talent of the individual, and observing and following it up for long periods, as parents notice with a little awareness and understanding, objectivity and impartiality careful observation for the growth of their children in all aspects (Al-Rousan, 2000: 243).

(Ali, 2013), that there are some qualities that characterize the gifted , which help the family in discovering his talent, the most important of which are :

1- He is superior to his peers in the way he speaks .
2- He shows his creativity and imagination while facing problems .
3- He loves reading and books and asks for help to learn to read before the age of six.
4- Pay early attention to the time and annual calendar.
5- He appears to have a clear ability to focus and pay attention . (Ali, 2018: 48)

Third, the role of the school in discovering gifted individuals

It is the responsibility of the school to discover gifted people and their special and latent preparations early, through the following system of procedures:

1- The use of scientific tools, methods and methods.
2- Providing rich and prolific educational capabilities that challenge the abilities and intelligence of gifted people.
3- prepare the appropriate means; With the aim of satisfying the needs of the gifted by planning the appropriate curricula and programmes.

The second axis: Previous studies

Study (Hung, 2011): A study dealing with the influence of parents on creativity in children with developmental disorders, and the study sample consisted of: (221) children, of whom (127) suffer

from various developmental disorders and (94) are normal, and the study concluded that educators Those with a high level of innovation development among the children they educate had a higher level of innovative thinking for their children than for others.

This study proved that the different capabilities of innovative thinking can be trained and strengthened even by unqualified individuals without a standard or structured training program, and it contradicts the authorities responsible for discovering gifted people to consider high innovation as a test of talent, because the high level of innovation may be the result of education and training rather than talent.

Study (Ahmed, 2016): This study aims to identify the differences in the level of innovative thinking among a sample of gifted and ordinary students, and the sample consisted of (60) individuals, including: (30) male students enrolled in the Mathematically Gifted Model School in Nasr City, and(30) ordinary (non-gifted) students from different schools in Cairo Governorate, and the researcher used the Torrance circuit test to measure innovative thinking, and the study found that the differences in the level of innovative thinking are statistically significant and are in the interest of ordinary students.

Study (Ali, 2018): This study aimed to identify innovative thinking and its relationship to psychological compatibility among gifted students in Sudan, as it adopted the descriptive and associative approach, and the study sample consisted of : (100) students selected in the intentional way, and the researcher used the innovative thinking test and the psychological compatibility test as a tool for the study, and the study concluded that there is no correlation between innovative thinking and psychological compatibility, and there are no significant differences in thinking between gifted students depending on the age variable, and there are significant differences in thinking between gifted students depending on the gender variables, and the classroom.

Chapter (3)

Methodology and procedures of the study

The researcher adopted the descriptive analytical approach, which is commensurate with the nature of the study, using a questionnaire that includes indicators of innovative thinking, provided to gifted students in the Dhi Qar school, which is suitable for study in terms of data collection and topics .

Study community

The study community consists of students of all gifted schools in Iraq, the number of (7) schools, specifically for students of the four secondary levels (the first intermediate, the second intermediate, the third intermediate, and the fourth preparatory), which are 320 students, distributed as follows: The first average(102) male and female students, the second intermediate (74) male and female students, the third intermediate(74) male and female students, the fourth intermediate(70) male and female students, and a table(1) showing this:

Table(1) Distribution of the study community

No.	Gifted students School	First Intermediate	The second middle grade	Third Intermediate	Scientific fourth grade	Total
1	Baghdad	21	11	21	11	64
2	Basra	14	12	7	10	43
3	Mosul	10	8	9	7	34

4	Najaf	11	13	9	10	43
5	Al-Anbar	22	12	11	9	54
6	Maysan	12	11	9	10	42
7	Dhi Qar	12	7	8	13	40
Total per row and overall total		102	74	74	70	320

The study sample: The study sample consisted of (40) male and female students, and (12.5%) of the original study community of (320) gifted male and female students in Iraq , for the academic year (2021-2022) , as shown in Table (2).

Table (2) Distribution of study sample members by sex and percentage of each

Gender	Gender	Percentage
Students	16	40%
Female	24	60%
Total	40	100%

The researcher distributed the questionnaire to the members of the study sample, and retrieved the most questionnaires that were distributed, with the exception of those who did not answer , and the questionnaire retrieval rate was (83%), as this percentage is sufficient for the purposes of the analysis process, Table (3) shows the characteristics of the study sample.

Table (3) Frequencies and percentages according to the study variables

Variables	Categories	Frequency	Percentage
Gender	Students	22	65%
	Female	12	35%
	Total	34	100%
Phase: Tutoring	First Intermediate	11	32%
	Second middle school	6	18%
	Third Intermediate grade	8	24%
	Fourth Intermediate grade	9	26%
	Total	34	100%

Study Tool

After reviewing the theoretical literature and previous studies related to the subject of the study, including the study of (Onaizat, 2020), the study of (Ismail, 2016), the study of (Ahmed, 2016), the study of (Ibrahim, 2013), the study of (Al-Baul, 2012), and the study of (the payment of God, 2011), and the study of (concerns, 2006), it was built to include indicators of innovative thinking.

The questionnaire included (33) items , in which the researcher mentioned the most prominent ways in which innovative thinking can be measured according to the theoretical literature, and the researcher adopted the triple Likert gradient, (always apply to me, sometimes apply to me, not always apply to me).

Study Tool Validity

Apparent validity means that it measures the apparent validity of the test or measure by the test or measure designer, as he reviews the initial form of the test to ensure and trust the necessity of the items , their degree of clarity, and how to answer them (Al-Jadri and Jacob, 2009: 157).

The validity of the study tool (questionnaire) was verified by presenting it to a number of arbitrators, experts, and specialists in educational fields, teaching methods, measurement, and evaluation. To express their observations and opinions about the validity of the study tool in terms of the appropriateness of the items , and the linguistic integrity, And their belonging to the item , and amending what they find appropriate, and all their opinions, notes and suggestions about the questionnaire were taken into account, as all the items were kept, and amendments were made to items (2, 3, 15, 16, 19, 25, 28) in the questionnaire, the researcher adopted a percentage (80% for accepting the item , and thus the researcher was able to verify the apparent validity of the questionnaire indicators and its validity, and thus the questionnaire in its final form consisted of (33) items .

Study Tool Stability

The researcher followed the method of conducting the test and re-test (Test-Retast), and the tool was applied to a sample from outside the study sample (exploratory), consisting of (42) male and female students from outside the study sample, with a two-week interval between the first and second applications. Correlation coefficient (Pearson) between the degrees of this application and to calculate the stability coefficient; In order to determine the suitability of the tool for application, and through internal stability using the (Cronbach alpha) equation, the stability coefficient was (0.89), which is suitable for the purposes of conducting the study, as shown in Table (4):

Table (4) Stability coefficient of the study instrument

Questionnaire	Cronbach Alpha
Innovative Thinking Indicators	.89

Study Procedures

The researcher carried out several procedures to achieve the objectives of the study and answer its questions, as follows :

1- Refer to theoretical literature and previous studies associated with innovative and gifted thinking study variables.

2- Addressing the educational authorities in the Gifted Care Authority in order to obtain approvals and letters to facilitate the task necessary to conduct the current study.

3- The study tool (questionnaire) was applied to an exploratory sample from outside the study sample consisting of (42) students from outside the study sample.

4- The questionnaire was distributed to the study sample consisting of (40) male and female students from the Gifted School in Dhi Qar for the academic year (2021-2022).

5- The instructions for answering the questionnaire and all information related to the questionnaire, the purpose of the study , and the emphasis on the need to answer all items without leaving any item .

6- The researcher collected the answers of the gifted students amounting to (34) questionnaires. Because (6) of the students refused to answer the questionnaire, which was distributed to the members of the study.

7- The researcher collected, interpreted and discussed statistical data.

8- The researcher adopted the triple Likert scale to determine the level of possession of gifted students for innovative thinking, and table(5) shows the scale gradient:

Table (5) the estimated scale according to the triple Likert scale

Level	Degrees:	Gradient
Always applies to me.	2.34_ 3	High
It applies to me sometimes.	1.67_ 2.33	Intermediate
It does not apply to me	1_ 1.66	Poor

(Ali and Hassan, 2011: 58)

9- The researcher presented the recommendations and proposed solutions in the light of his findings.

Statistical analysis

- Pearson correlation coefficient (re-stability coefficient) to calculate the stability of the application.
- Coefficient of internal stability (Cronbach Alpha) to verify the stability of the study instrument.
- Arithmetical means and standard deviations
- Applying the independent sample test (T) to identify the differences between the answers of the sample members according to the gender variable and the school stage.

Chapter Four

results of the study and its discussion

This chapter includes a presentation of the results of the study according to the data analysis, as follows :

- **The first question:** (What is the level of possession of gifted students for innovative thinking?)
- **To answer the first question** : Means and standard deviations were calculated to the responses of gifted students, and table (6) shows the results.

Table (6) The arithmetic means and standard deviations of the gifted students' estimates for the items are arranged in descending order according to the arithmetic means

Rank	Number	statements	mean	Standard Deviation	possession level
1	7	I work with enthusiasm and enthusiasm when I am convinced of it.	2.88	0.33	High

2	13	I like people who have different hobbies and interests.	2.82	0.45	High
3	2	If I read an unfinished story, I can end it.	2.79	0.53.	High
4	30	I don't care if you disagree with someone else's opinion.	2.76	0.49	High
5	9	I discuss issues that are older than my age.	2.70	0.52	High
6	25	I refuse to imitate others in their actions and opinions.	2.67	0.53.	High
7	1	If I have a question, I think of more than one way to solve it.	2.58	0.60	High
8	14	I have the ability to change the reading style according to the nature of the course.	2.58	0.60	High
9	3	It is my habit to express my opinions in various situations frankly and clearly.	2,50	0.70	High
10	21	If a colleague falls into a situation, I can get rid of him in a tactful manner.	2.44	0.56	High
11	27	My thoughts seem new and rare when compared to those of others .	2.44	0.56	High
12	26	An aversion to routine chores.	2.41	0.60	High
13	17	I tend to exchange views and debate with colleagues on intellectual and cultural issues.	2.41	0.70	High
14	33	Work on your computer and the Internet with skill, and design special and innovative programs.	2.35	0.64	High
15	24	I like to read poets who use creative phrases that are not in circulation .	2.32	0.84	Intermediate
16	10	The teacher interrupting me before I finish the answer limits my creativity.	2.26	0.78	Intermediate
17	11	I control the study style quickly depending on the circumstances and situations.	2.26	0.79	Intermediate
18	6	I usually don't want to express my feelings in the rest of my life.	2.20	0.72	Intermediate
19	4	I find it difficult to articulate the decisions I make on various subjects in a convincing way.	2.11	0.64	Intermediate
20	29	I prefer to work with a group constantly and do not like to work alone.	2.00	0.69	Intermediate
21	16	I believe that my opinion is always right when it comes to an issue.	1.97	0.67	Intermediate
22	5	Sometimes I don't like the titles of some stories, so I want to put new titles for them.	1.82	0.75	Intermediate

23	12	It is right for a person to adhere to a fixed pattern in his private life.	1.76	0.78	Intermediate
24	23	I like to fully adhere to other social values and traditions of any kind.	1.73	0.70	Intermediate
25	32	I am inclined to the majority opinion on most of the topics discussed by colleagues.	1.67	0.76	Intermediate
26	19	I cannot adapt to students of different age levels.	1.67	0.80	Intermediate
27	22	I often change my mind about certain topics when others disagree with me.	1.64	0.73	Poor
28	15	I respond in the same way to all the people I deal with.	1.58	0.74	Poor
29	28	I tend to memorize school materials more than other methods.	1.52	0.61	Poor
30	8	My thoughts are normal and do not attract the attention of others.	1.52	0.66.	Poor
31	18	I always organize my leisure time according to a fixed system that does not change.	1.52	0.66.	Poor
32	20	My reading is limited to topics related to my specialty.	1.47	0.70	Poor
33	31	I stick to what my parents choose for me in terms of specialization at the university after I graduate from school.	1.38	0.65	Poor
Creative Thinking			2.14	0.61	Intermediate

It is clear from Table (6) that the level of gifted students' possession of innovative thinking was () with a standard deviation of (2.14) and with an average gradient. 7), which states " I work with enthusiasm and enthusiasm when I am convinced of it With an arithmetic mean (2.88) and a standard deviation (0.33), an estimate that always applies to me, with a (high) gradient.

Item (31), which states"I abide by what my parents choose for me to specialize in the university after my graduation from school," came in the last place with an average of (1.38) and a standard deviation of (0.65) with an estimate that does not apply to me and with a (weak) gradation. The arithmetic average of items (7, 13, 2, 9, 25, 1, 14, 3, 21, 27, 26, 17, 33) between (2.88 - 2.35) with an estimate that applies to me always, with a (high) gradation. As for items (14, 10, 11, 6, 4, 26, 2, 16, 5, 12, 23, 32, 19), it was limited between (2.32_ 1.67) with an estimate that applies to me sometimes, with a (medium) gradation. The rest of items (22, 15, 28, 8, 18, 20, 32) have their arithmetic averages between(1.64 _1.38) with an estimate that does not apply to me, with a (weak) gradation.

The second question: (Are there significant differences at the level of significance (0.05) for the level of possession of gifted students of innovative thinking due to the gender variable and the school stage?).

- To answer this question, the arithmetic means and standard deviations were extracted for the responses of the study sample (gifted students) about the level of their possession of innovative thinking, according to the variable of gender and educational stage, and Table (7) shows that.

Table(7) Arithmetic means and standard deviations of the responses of gifted students according to the gender variables, and the school stage

Variables	Variables Categories	No.	Arithmetic Average	Standard Deviation	possession level
Gender	Student	22	71,90	9.69	High
	Student	12	69.00	3.69	High
Educational level	First Intermediate	11	75.45	12.17	High
	The second is average	6	70–83.	3.86	High
	Third Intermediate	8	69.37	4.13	High
	Fourth Scientific	9	66.66	3.64	High

It is clear from Table (6) that there is no apparent discrepancy in the arithmetic means and standard deviations of the estimates of gifted students, due to the different categories of the variables of gender and educational stage.

Table (8) Analysis of the tripartite variation of the impact of gender, and the school stage of the responses of gifted students about their level of possession of innovative thinking

Source of variance	Sum of squares	Degrees of freedom	Mean squares	F value	sig
Gender	16.88	1	16.88	0.291	0.594
Educational level	200.08	3	66.69	1.150	0.347
Error	1565.5	27	57,981		
Total	173018.0	34			

Table (8) shows that there are no statistically significant differences at the level of significance ((0.05= α) between the averages of the responses of gifted students according to the gender variable, as the value of (P) (0.291) at the level of significance (0.594) and the absence of statistically significant differences attributed to the school stage variable, as the value of (P) (1.150) at the level of significance (0.347).

Discussion regarding the results of the study

The following is a review of the discussion of the study questions in sequence and as follows:

- Discuss the results of the first question, which text (What is the level of gifted students' possession of innovative thinking?)

It is natural that there is a difference between gifted people in the level of possession of innovative thinking, and ordinary students, because they have mental features that can appear in different areas of life.

The results confirmed that gifted students have a (medium) rate of innovative thinking, which is very good compared to the level of possession of ordinary students of this type of thinking; because talent exceeds the possession of the individual mental abilities is much wider, and it is not limited to reasoning abilities, but includes other features (Gross, 2004: 6).

The ability of innovation and the capacity of imagination during the face of problems are the most prominent qualities of gifted people, and on the other hand, the creation of appropriate conditions to satisfy the needs of gifted people through the planning of curricula and distinct programs, educational programs provided to gifted people are distinct programs from traditional programs, we find them reach their maximum goal.

The provision of educational expertise is another important factor that led this group to possess this type of thinking. The Ministry of Education, represented by the formation of the Gifted Care Authority, provided rich educational experiences that challenge the abilities and intelligence of the gifted .

- Discuss the results related to the second question: (Are there statistical differences at the level of significance (0.05) for the level of gifted students' possession of innovative thinking due to the variable of gender and educational stage?).

First: gender:

The researcher extracted arithmetic averages and standard deviations , and then used a triple variance analysis, table (7); to identify the differences according to the gender variable, and it turned out that there are no statistically significant differences attributed to the gender variable.

This result may be attributed to each of the two parties having special characteristics, and therefore these characteristics were equivalent, even if they were different in type. What females possess in terms of calmness and accuracy in thinking about any topic they wish to reach, and the use of appropriate methods to overcome obstacles, matched by males with the ability to bear hardships, and they showed Numerous discoveries in these ages distinguished them from females.

There are other reasons, including: the educational environment is the same for males and females, as well as the social environment. The parents of students have similar educational levels, and the curricula and courses are also not different for both parties, as well as teachers. They study students collectively in classes d/anchored males and females.

Second : School Stage :

The researcher extracted arithmetic averages and standard deviations , and then used a triangular variance analysis, table (7), to identify the differences according to the school stage variable, and it turned out that there are no statistically significant differences attributed to the school stage variable.

The researcher attributes this result to the fact that the difference between the ages of the students in the academic stages is not large. Therefore, there was no difference between these stages of study.

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