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THE IMPACT OF THE ENRICHMENT IN ARABIC LANGUAGE ON THE DEVELOPMENT OF CRITICAL THINKING SKILLS AMONG 5TH GRADE POTENTIALLY GIFTED ARABIC STUDENTS

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Abstract

This study aimed to examine the extent of the contribution of the enrichment program in the subject of the Arabic language to enabling 5th grade students with potentiality creative to possess thinking skills within the framework of critical thinking in the city of Nazareth. The study sample was a convenience sample consisted of 56 male and female students with potentiality creative from the 5th grade from Bir Al-Amir School in the city of Nazareth. The sample was divided into two equal groups, an experimental group that studied the Arabic language using the enrichment program, and a control group that used the traditional approach. The study tools consisted of an Evaluation of Potential Creativity Test (EPoC), and a test that measures thinking skills within the critical thinking framework. The validity and reliability of both tools were verified. The researcher used the associated one-way analysis of variance (ANCOVA) to answer the study questions .Findings indicated the existence of a significant statistical difference at the significance level ($\alpha \leq 0.05$) between the means of the two study groups of students regarding the thinking skills test in the framework of critical thinking. This difference was in favor of the experimental group and is due to the enrichment program that was employed in the study. The results also showed that there were statistically significant gender differences in favor of females in terms of the contribution of the Arabic language enrichment program to enabling students with potential creativity in the experimental group to acquire thinking skills within the critical thinking framework. The study recommends the necessity of employing the (EPoC) diagnosis as a globally approved approach in the rapid survey and accurate diagnosis of potential creativity of students, in addition to using scales for rating the behavioral characteristics of superior students (SRBCSS), and academic achievement of gifted students in addition to qualifying teachers to use the (EPoC) diagnosis to accurately identify the characteristics of gifted students so as to better understand and nurture gifted students.

Keywords: EPoC, Potential Creativity, Critical Thinking Skills, Enrichment Program.

INTRODUCTION

The topic of giftedness and creativity has gained increasing interest in various societies, especially in the fields of psychology and education since the 1950s, as it is considered a fundamental pillar that helps individuals solve their problems and invest in their cultural, social, and personal aspects of life (Besançon, Lubart, & Barbot, 2013; Lubart, Zenasni, & Barbot, 2013). Creativity is considered one of the six main frameworks of thinking in the twenty-first century, alongside critical thinking, creative problem solving, future problem solving, collaboration, and communication (Yamin, 2019; Lubart, Zenasni, & Barbot, 2013). The creativity potentialityis the ability to produce an authentic and context-appropriate product (Sternberg & Lubart, 1995; Yamin, 2012; Runco & Jaeger, 2012; Barbot, Besanncon, & Lubart, 2016). Therefore, the focus on early discovery and comprehensive care for creators and talented individuals has become necessary to

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develop their exceptional capabilities and maximize their potential as imposed by societal progress and the rapid technological revolution in both international and Arab societies (Ahmed & Ja'is, 2018).

Problem of the Study

The problem with studying lies in the absence of enrichment programs that help employ critical thinking skills, as non-traditional education requires providing students with potential giftedness with different thinking skills within different thinking frameworks. This requires teachers to employ enrichment programs and modern teaching strategies (Al-Jamal, 2017; Abu Serhan, 2014), (Taylor & Pearson, 2006; Hou, 2015). Both Amara (2010) and Abu Asba (2009) affirmed, based on the social structure and cultural environment in the Arab society within the Green Line, that investing in thinking skills is not easy, as prevailing teaching strategies in the Arab education system largely rely on rote learning, which necessitates changing these strategies to align with the requirements and needs of the era. This can be achieved through providing quick scanning programs and accurate diagnosis to identify students' hidden giftedness and creativtiy, and then developing enrichment programs aimed at developing thinking skills.

Significance of the Study

This study explores the impact of an Arabic language enrichment program on fifth-grade gifted and creative students in Nazareth, highlighting its effectiveness in developing academic skills, improving performance, and fostering creativity (Ibrahim, 2014; Abdou, 2010; Al-Jamal, 2017). Studies have also confirmed that appropriate and consistent enrichment programs, in line with the definition and concept of the creative and giftedness (Renzulli, 2016a), enhance talent and creative abilities, and are capable of investing in and increasing creative output among the talented and creatively gifted individuals (Lubart & Besançon, 2015).

Questions of the Study

1) Are there statistically significant differences in the contribution of the enrichment program in the Arabic language subject in empowering potentially gifted fifth-grade students to possess critical thinking skills attributed to potential creativity levels?
2) Are there statistically significant differences in the contribution of the enrichment program in the Arabic language subject in empowering potentially gifted fifth-grade students to possess critical thinking skills attributed to gender?
3) Are there statistically significant differences in the contribution of the enrichment program in the Arabic language subject in empowering potentially gifted fifth-grade students to possess critical thinking skills attributed to the cultural environment?
4) Are there statistically significant differences in the contribution of the enrichment program in the Arabic language subject in empowering potentially gifted fifth-grade students to possess critical thinking skills attributed to the student's position in the family?

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Terms of the Study

Students' Potential of Creativity: it is the ability to produce an authentic and contextually appropriate product (Barbot, Besanncon, & Lubart, 2016; Runco & Jaeger, 2012; Saraswat, 2017; Yamin, 2012).

Critical thinking skills within the framework of critical thinking: They are a form of contemplative thinking directed towards analyzing and evaluating communications, information, and existing evidence, specifically through the use of the mind and logic. These skills include observation, classification, comparison and contrast, perception of causal relationships, pattern recognition, evaluation, decision-making, and planning (Yamin T., 2018).

The enrichment program in Arabic language: It focuses on enrichment or enrichment based on the integrative cognitive trend (Ambrose & Sternberg, 2016). The program includes a set of activities and educational experiences designed by the researcher to utilize critical thinking skills within the framework of critical thinking for gifted students in the Arabic language subject within the regular school and during the regular school day. The enrichment program is based on four scientific theories (SEM) School-wide Enrichment Model, in order to enhance the level of mastery, responsibility, and interest of the gifted student in the enrichment activities offered to him. These activities consider three main components of enrichment, which are:

1) Excitement and enjoyment.
2) Responsibility.
3) Interaction.

Limitations of the Study

Human limitation: The study is limited to a specific sample of potentially gifted fifth-grade students from the city of Nazareth, affiliated with the Northern District. Two groups, experimental and control, were selected from the fifth-grade class of the Al-Emir Elementary School to apply the study tools on them. The fifth grade was chosen based on the cognitive processes that are developed in students at this age, which are invested in and trained (Piaget, 1977).

Temporal limitation: The study was conducted in the first, second, and third semesters of the academic year 2021-2022.

Spatial limitation: This study is limited to Al-Emir Elementary School, which is a mixed gender school in the city of Nazareth.

Subject limitation: The unit "A Day in My Life" from the Arabic language book "Arabic is Our Language" for the fifth grade, Part 1, for the academic year 2021-2022.

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Previous studies about potential creativity:

1. **The study of Kaya (2020) entitled as "Myths about Creativity: A Qualitative Study of Parents of Creative Students."**

It aimed to uncover the stereotypical ideas held by parents about their children who possess hidden creativity. To achieve this, the study sample consisted of 12 parents of creative students, and data was collected through semi-structured interviews. The researcher then analyzed the content of these interviews. Its results found that parents believe creativity is a divine inspiration and linked it to personality and thinking style. Additionally, parents believed there is a positive relationship between intelligence and creativity.

2. **The study of Devrise & Lubart (2017) entitled as: "Scientific Creativity: The Impact of Culture on Divergent and Convergent Thinking."**

It aimed to uncover the differences and distinctions between divergent and convergent scientific creativity, and the contradictory relationship of scientific creativity with cultural factors among primary school students. This was done by using a newly developed scale for scientific creativity potentials, where students generate ideas in response to scientific problems. Its sample consisted of 118 children from primary schools in France, aged between 7-10 years. Its results showed that the performance of divergent and convergent tasks had a weak correlation, indicating that divergence and convergence are relatively distinct processes in scientific creativity, and that the relationship is more complex in terms of culture-related variables.

Previous studies about enrichment programs in creative thinking:

1. **The study of Zulkifli (2020) entitled as: "Improving Critical Thinking through Philosophy for Children".**

It aimed to explore the impact of children's philosophy on improving critical thinking among child students in school. Its sample consisted of two groups: an experimental group and a control group. The experimental group comprised 27 students, while the control group consisted of 34 students. It also used a thinking skills test, and the results indicated statistically significant differences between the experimental and control groups when the post-test was administered. This suggests that the students' level of improvement significantly increased as a result of applying the critical thinking skills test to them.

2. **The study of Mayasar (2019) entitled as "The Impact of Enrichment on the Understanding of Pascal's Laws Based on the Teaching of Science, Technology, Engineering, and Mathematics on Critical and Creative Thinking Skills".**

It aimed to reveal the impact of enrichment on the understanding of Pascal's laws, which are based on the foundation of science, technology, engineering, and mathematics, and to teach critical and creative thinking skills to eighth-grade students in order to enhance their critical and creative thinking skills. Its sample consisted of eighth-grade students

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aged between 14-15 years old. The study results showed an increase in the percentage of critical thinking skills and a rise in the levels of creativity among the students.

3. **The study of Fitrian & Mahanal (2019) entitled as: "Exploring the Principles of Teachers Using Analytical and Critical Thinking Skills"**

It aimed to explore the critical and analytical thinking skills of teachers. Its sample consisted of 100 teachers, including 50 male teachers and 50 female teachers, and the sample was randomly selected. After analyzing the critical and analytical thinking skills, the study found that future teachers use critical thinking skills. The study also revealed a positive correlation between critical thinking and critical analysis skills among teachers.

4. **The study of Enciso, Enciso, & Daza (2017) entitled as "Critical Thinking and Its Importance in Education: Some Reflections"**

It aimed to review some concepts of critical thinking and link them to education. It presented some philosophical and psychological approaches to critical thinking and their impact on international and national educational policies as a means to promote citizenship and sustainable development. It also shed light on the relationship between critical thinking and content. It found that implementing a test of thinking skills in classrooms helped improve communication between teachers and students on

RESEARCH METHODS

To achieve the study's objectives and answer its questions, the researcher used the quasi-experimental design, specifically the pretest-posttest design, for the experimental and control groups. The groups were tested before introducing the independent variable, and then tested again after its introduction. The difference between the two tests indicates the impact of the independent variable on the group (Ary, 2013). The study participants were divided into two groups: experimental and control, in which one or more independent variables were manipulated. The essential element of quasi-experimental research is intentionally creating different conditions and experiences for different groups. The researcher applied an enrichment program to the experimental group, while the control group did not receive the same program and only had meetings without any components of the enrichment program.

Research Design

This study used a quasi-experimental methodology, which relies on the design of equivalent control and experimental groups, and pre- and post-testing to assess critical thinking skills within the framework of critical thinking. The experimental group participated in the Arabic enrichment program, while the control group was taught using the traditional method. The equivalence of the two groups was ensured through the pre-test results of the critical thinking skills test (see Appendix B). The study design is explained as follows:

- **Experimental Group:** Pre-test - Application of the Arabic enrichment program - Post-test.
- **Control Group:** Pre-test - No enrichment treatment - Post-test.

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This can be demonstrated in table (1):

Table (1): Study Design

G (Group)	Treatment			
	Pre-Test	Enrichment Program	Post- Test	Sequential Measurement
E	O1	X	O2	O
C	O1	-	O2	-

EG: O1 X O2

CG: O1 – O2

Experimental Group: EG

Controlling Group: CG

Pretest O1: (A test in thinking skills in the creative thinking framework)

Posttest O2: (A test in thinking skills in the creative thinking framework)

Experimental Treatment: X (enrichment program including several activities serving the purpose of thinking skills and creative thinking)

The Variables of the Study

The Independent Variables.

- The enrichment program in Arabic language.
- Students' creativity potentiality.
- Gender.
- Student's position in the family.
- The cultural environment.

The Dependent Variables

The score obtained by the student in a test that includes a set of activities that measure critical thinking skills in the subject of Arabic language (pre-test and post-test conducted by the researcher).

The Study Community

The study community consists of all fifth-grade students in the city of Nazareth in the second and third semesters of the academic year 2021-2022, totaling (1494) male and female students.

Sample of the study

In order to select the experimental and control study samples, the researcher chose a purposive sample of fifth-grade students in the city of Nazareth, totaling (140) male and female students, who attend the primary school of Bir Al-Amir, which is a mixed school for males and females for the academic year 2021-2022. The school was deliberately chosen for ease of study procedures, the cooperation of the school administration and

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staff with the researcher, and ease of communication with the administration, teachers, and students in the school. The study's sample was also chosen after diagnosing the gifted individuals using an internationally recognized scale for accurate diagnosis, and according to the internationally recognized definition of the gifted person as indicated by (Yamin, 2019).

Experimental Study sample (study participants):

The study participants represent (56) potentially gifted and creative fifth-grade students from Bir Al-Amir School in Nazareth, and the study sample was randomly divided into two groups:

The control group: (28 male and female students)

The experimental group: (28 male and female students)

Table (2): shows the distribution of the study sample

Types of Sample	Frequencies	Percentage
Controlling	28	50.0
Experimental	28	50.0
Total	56	100

Tools of the Study

The researcher utilized tools like EPoC, lists for tracking gifted and creative students' behavioral traits, and academic achievement to measure the impact of an Arabic language enrichment program on fifth-grade Arab students in Nazareth.

Demographic Variables of the questionnaire

The questionnaire includes the following demographic variables: gender, mother's occupation, father's occupation, number of siblings, child's birth order, parents' marital status, father's years of education, mother's years of education, and the family's economic status.

Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS)

Renzulli's 14-item lists measure gifted students' behavioral characteristics in various areas, including learning, creativity, motivation, leadership, arts, music, drama, communication, planning, mathematics, reading, technology, and science. (Renzulli J. S., 2002). The study utilized 10 monitoring lists to identify students with hidden talents in learning, creativity, motivation, leadership, communication, planning, and their association with mathematics, reading, and science traits. These lists have been implemented through:

1) Using a supporting tool for selecting gifted students in the targeted sample if the cognitive measurement tools reveal the presence of the potentially gifted.
2) They were applied to students in the targeted sample with high achievement based on information and data from school records. They were also used to determine behavioral characteristics as a criterion for quick scanning and accurate diagnosis

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of students in the targeted sample who have average or below average academic achievement.

EPoC Scale for Creativity

The intentional sample individuals in this study were selected, consisting of (56) gifted and creative students from the fifth grade of Bier Al-Amir School. These students achieved a creativity score of (110 or higher) which appeared in their personal student profile, after their creative abilities were diagnosed through the EPoC (EPoC) assessment by Lubart (2012). This measure focuses on two types of thinking: divergent exploratory thinking and convergent integrative thinking .There are two equivalent models of the EPoC diagnosis: Model (A) and Model (B). Each model consists of a preliminary test and eight other sub-tests. The sub-tests are presented in two dimensions: Verbal Domain and Graphic Domain .The EPoC diagnosis covers four thinking patterns, which are:

- Divergent exploratory thinking (graphic/visual).
- Divergent exploratory thinking (verbal).
- Convergent integrative thinking (graphic/visual).
- Convergent integrative thinking (verbal).

In the first session, four tests are applied from Model (A), and in the second session, four other tests are from Model (A), as detailed in table (3).

Table (3): How to organize the application of tests of Model (A). EpoC

First session	Exploratory divergent thinking	Integrative convergent thinking
Graphic	Abstract form	Abstract form
Verbal	Story endlings	Story with given title
Second session	Exploratory divergent thinking	Integrative convergent thinking
Graphic	Concerete objects	Concerete objects
Verbal	Story beginings	Story with characters

Mental abilities (intelligence)

The degree of intelligence can be inferred from creative intelligence, according to the results of the “Epoch” diagnosis.

School academic achievement

The student’s score in the fifth grade Arabic language tests, which was obtained by reviewing school records and determining the school’s points.

A test to measure students’ performance in thinking skills within the framework of critical thinking

The researcher prepared a test to measure the students’ performance in thinking skills within the framework of critical thinking. The test was administered to the purposive sample twice: before and after the enrichment program.

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The stability of the thinking skills test within the framework of critical thinking

To ensure the stability of the thinking skills test within the framework of critical thinking, the researcher used the “Cronbach Alpha” equation (Cronbach's Alpha) after measuring validity, and table (4) shows the internal consistency reliability coefficients for testing thinking skills within the framework of critical thinking.

Table (4): Reliability coefficients of the thinking skills test within the framework of critical thinking using the Cronbach alpha method

Dimension	No. of Paragraphs	Cronbach Alpha
Thinking Skills Test	8	0.75

It is clear from table (4) that the Cronbach Alpha reliability coefficient for the thinking skills test reached (0.75). This value is considered high, and makes the tool applicable to the study sample.

Enrichment Programme

The program includes a set of activities and educational experiences to invest thinking skills within the framework of critical thinking on the subject of the Arabic language, which was designed by the researcher. The program includes main skills for critical thinking, which are: observation, classification, comparison and contrast, awareness of causal relationships, awareness of pattern, evaluation, and decision-making and planning.

Validity of the Enrichment Program

The study assessed the program's validity by presenting it to a committee of arbitrators, including Al Qasimi Academy staff and Arabic language teachers. They evaluated critical thinking skills, linguistic formulation, and time allocation.

Eight critical thinking-focused activities were developed, and the program was approved with 80% consensus. In light of the aforementioned material and enrichment program, a test was also built to measure thinking skills within the framework of critical thinking.

Statistical Processing

The study used a computerized program prepared by the International Center for Innovative Education (ICIE) to monitor students' scores in the "Epoch" diagnosis. The data was processed using statistical packages for the social sciences program, including Cronbach Alpha to assess the reliability of the critical thinking test. Arithmetic means, standard deviations, and percentages were used to describe students' scores, and Shapiro and Lake Tests were used to determine a moderate-normal distribution.

RESULTS OF THE STUDY

Results Related to the Diagnosis of the Potentially Gifted: (EPoC)

In this study, the purposive sample members, who numbered (56) male and female students with potentially gifted and creativity, were selected from the fifth grade of Bir al-Amir School. They are the students who obtained a percentage of creativity potentiality (110 or higher) according to the points, which appeared in the student’s profile. his own,

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after his creative abilities were diagnosed through the “Epoch” diagnosis as shown in table (5):

Table (5): The distribution of the results of the study sample members with giftedness and creativity according to the results of the diagnosis (EPoC).

Creativity potentiality Percentage	Frequencies	Percentage
110	16	28
115	6	11
120	18	32
125	6	11
More than 130	10	18
Total	56	100%

It appears from table (5) that the highest percentage of students with creativity potentiality are those who obtained the creativity potentiality percentage (120), which is (32%), while the lowest percentage of students with potentials for creativity is (110) and (125), it reached (11%).

Results Related to Lists for Monitoring the Distinctive Behavioral Traits of Gifted Students (SRBCSS)

In the current study, 10 “Renzulli” lists were used to monitor the distinctive behavioral characteristics and characteristics of the purposive sample. Table (6) shows the average of each of the monitoring lists, and the frequency of the number of students who obtained an average higher or lower than the average of the list as shown in table (6)

Table (6): The distribution of the results of monitoring lists of the distinctive behavioral characteristics and characteristics of gifted students in the purposive sample

Monitoring list	List Average	Frequency of the number of students with an average higher than the list average	Percentage of students with an average higher than the list average
Traits and characteristics of learning	33	56	100%
Traits and characteristics of creativity	27	56	100%
Attributes and characteristics of motivation	33	56	100%
Leadership traits and characteristics	21	56	100%
Traits and characteristics of communication (accuracy)	33	55	98%
Traits and characteristics of communication (expression)	12	51	91%
Features and characteristics of planning	45	54	96%
Attributes and characteristics associated with mathematics	30	56	100%
Traits and characteristics associated with reading	18	47	84%
Attributes and characteristics associated with science	28	37	66%

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It appears from table (6) that the percentage of gifted students with an average score higher than the average on the lists for monitoring the distinctive behaviors of gifted students is higher than (91%) in all monitoring lists, except for the two lists for monitoring characteristics related to reading and science.

Results Related to the Academic Achievement of Students with Potential Creativity

The results of the scores of the sample members with giftedness and creativityin the Arabic language tests for the fifth grade were obtained by reviewing school records and determining the school's points, as shown in table (7).

Table (7): The distribution of the results of the performance scores of sample members with giftedness and creativity in the Arabic language tests for the fifth grade

Level	Frequency	Percentage
90% or higher	10	18%
71-89%	15	27%
70% or less	31	55%
the total	56	100%

It is clear from table (7) that the highest percentage of students with giftedness and creativity who have an academic achievement in the Arabic language (70 or less) is (55%), while the lowest percentage of students with giftedness and creativity who have an academic achievement in the Arabic language is (90 or higher). It reached (18%).

Results Related to The Distribution of Students with Giftedness and creativity in the Two Groups

Normal distribution test (Normal Distribution)

To ensure that the data follows a normal distribution (Normal Distribution: The Shapiro-Wilk test for normal distribution was used, which is a necessary test in order to determine the statistical methods that will be used to test the study questions. Are they parametric tests or non-parametric tests?

Since most parametric tests require that the distribution of data be normal, Yap & Sim (2011) confirmed that it is preferable to use the Shapiro-Wilk test, in case of sample size (less than or equal to 60), and table (8) The normal distribution test for variables shows:

Table (8): The results of Shapiro-Wilk test

Variable	Group	No.	Shapiro-Wilk	Sig
Testing thinking skills within the framework of post-critical thinking	Experimental	28	0.947	0.162
Testing thinking skills within the framework of post-critical thinking	Controller	28	0.948	0.178

It is clear from table (8) that the statistical significance values of the Shapiro and Lake test(Shapiro-Wilk) is greater than the level of statistical significance (α ≤0.05), which

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indicates that the data follows a normal distribution, and therefore the study used parametric tests in analyzing the data.

Equivalence of Groups to Test Thinking Skills within the Framework of Thinking

To verify the equality of the experimental and control groups before implementing the enrichment program, a t-test was used for two independent groups (Independent Samples t-test), and table (9) shows this.

Table (9) Arithmetic means, standard deviations, and the t-test depending on the group variable on the thinking skills test within the framework of thinking in the pre-measurement

Test	Group	No	Average	Standard Deviation	Value	Sig.
Testing thinking skills within the framework of tribal critical thinking	Experimental	28	41.9286	9.64146	1.668	1.668
	Controlling	28	37.5357	10.06086		

It is clear from table (9) that there are no statistically significant differences at the significance level ($\alpha \leq 0.05$) between the arithmetic means of the pre-measurement of the thinking skills test in the thinking framework according to the group variable (experimental, control); The “t” value for the total score was (1.668), with statistical significance (0.101), and this result indicates the equality of the two groups.

Results Related to the Questions of the Study

Results Related to the First Question

Are there statistically significant differences in terms of the contribution of the enrichment program on the subject of the Arabic language in enabling fifth grade students with giftedness and creativity to possess thinking skills within the framework of critical thinking that can be attributed to potential of creativity?

To answer the first question, the arithmetic means and standard deviations of the study individuals’ scores on the thinking skills test within the framework of critical thinking were calculated in the post-measurement, and the results of table (10) show this:

Table (10): Arithmetic means and standard deviations of the scores of individuals in the experimental and control groups on the thinking skills test within the framework of critical thinking in the post-measurement

Group	No.	Post-Measurement	
		Average	Standard Deviation
Experimental	28	87.4643	0.13535
Controlling	28	44.8929	0.33809

It is clear from table (10) that there are clear apparent differences between the average performance of the two groups: the experimental and the control group on the thinking skills test within the framework of critical thinking in the (post) measurement. The average performance of the experimental group on the post-measurement was (87.46), while the

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average performance of the control group was (44.88), and this indicates differences between the two averages. To verify the fundamentality of this difference; Use the analysis of covariance (ANCOVA) for the post-measurement of the thinking skills test within the framework of critical thinking, according to the group after neutralizing the effect of their pre-measurement, as shown in table (11).

Table (11): The analysis of variance accompanying the post-measurement of the thinking skills test within the framework of critical thinking according to the group after neutralizing the effect of their pre-measurement

Source of variance	Sq Sum	Freedom Degree	Sq Averages	F Value	Sig	Impact Value
Pretest	245257.786	1	245257.786	1804.928	0.006	0.248
Group	25372.571	1	25372.571	186.725	0.000*	0.776
Error	7337.643	54	135.882			

*Statistically significant at the significance level (*p < .05)

It is clear from table (11) that there are statistically significant differences at the significance level (α ≤ 0.05) attributed to the group; The calculated value of (F) was (186.72), with statistical significance (0.000). To determine which of the two study groups the differences were in favor of, the adjusted arithmetic means for the post-measurement of the thinking skills test within the framework of critical thinking were calculated, according to the group and its standard errors, as shown in table (12).

Table (12): The adjusted arithmetic means of the post-measurement test of thinking skills within the framework of critical thinking according to the group and their standard errors

Group	Adjusted Average	Standard Error
Experimental	86.6910	1.53744
Controlling	36.8797	2.70964

It is noted from table (12) that the adjusted arithmetic mean for the experimental group that used the enrichment program applied to raise the level of thinking skills within the framework of critical thinking; it reached (86.69), while the control group reached (36.87), and this indicates that the difference was in favor of the experimental group. Meaning that the applied enrichment program had an effectiveness in the level of thinking skills within the framework of critical thinking, noting that the size of the impact of the enrichment program reached (.776). Arithmetic means and standard deviations were also calculated for the post-measurement of critical thinking levels, according to the group (experimental and control), as shown in table (13).

Table (13): Arithmetic means and standard deviations for the post-measurement of critical thinking levels according to the group

Levels of critical thinking	Group	No.	Post Measurement	
			Average	SD
Creative level	Experimental	14	94.2143	0.88707
Mastery level	Experimental	14	80.7143	0.56678
good level	Controlling	28	44.8929	0.33809

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It is noted from table (13) that there are clear differences between the arithmetic means of the post-measurement of critical thinking levels. (14) participants in the experimental group achieved the highest level of critical thinking levels in the post-measurement (i.e. after applying the enrichment program), which is the creative level, i.e. they achieved At a rate of (90%) and higher, with an arithmetic average of (94.2), 14 others from the experimental group obtained the proficient level in the post-measurement, with an arithmetic average of (80.7), while all members of the control group obtained a good level (70 or less), which is the level The lowest level, and none of the members of the control group achieved the higher levels (creativity and dedication), which indicates the impact of the enrichment program in raising the level of critical thinking skills among fifth-grade students with the potential of creativity.

Results Related to the Second Question

Are there statistically significant differences in terms of the contribution of the enrichment program on the subject of the Arabic language in enabling fifth grade students with giftedness and creativity to possess thinking skills within the framework of critical thinking due to gender?

To answer the second question, the arithmetic means and standard deviations of the scores of the experimental group members on the thinking skills test, within the framework of critical thinking in the post-measurement, were calculated according to the gender variable, and the results of table (14) show this.

Table (14): Arithmetic means and standard deviations of the scores of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement according to the gender variable

Gender	No.	Post Measurement	
		Averages	SD
Male	14	84.8571	0.56520
Female	14	90.0714	0.03250

It is clear from table (14) that there are clear apparent differences between the average performance of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement after applying the enrichment program according to the gender variable.

The average performance of males on the post-measurement was (84.85), while the average performance of females was (90.07), and this indicates differences between the two averages.

To verify the significance of these differences; Use covariance analysis (ANCOVA) for the post-measurement of the thinking skills test within the framework of critical thinking, according to the gender variable after neutralizing the effect of the pre-measurement, as shown in table (15).

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Table (15): Analysis of the accompanying variance of dimensional measurement for the test of critical thinking skills within the framework of critical thinking for the experimental group according to the gender variable after neutralizing the effect of their pre-measurement

Source of variance	Sq Sum	Freedom Degree	Sq Averages	F Value	Sig
Pretest	214200.036	1	214200.036	3488.069	0.006
Gender	190.321	1	190.321	3.099	0.000*
Error	1596.643	26	61.409		

*Statistically significant at the significance level (*p < 0.05)

It is clear from table (15) that there are statistically significant differences at the significance level (α ≤0.05) attributed to the gender variable; the calculated F value was (3.099), with statistical significance (.000). Referring to the arithmetic averages in table (14), it is noted that these differences were in favor of females. This indicates that the enrichment program affected females more than males.

Results Related to the Third Question

Are there statistically significant differences in terms of the contribution of the enrichment program on the subject of the Arabic language in enabling fifth grade students with giftedness and creativity to possess thinking skills within the framework of critical thinking due to the cultural environment?

To answer the third question, the arithmetic means and standard deviations were calculated for the scores of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement, according to the cultural environment variable, and the results of table (16) show this.

Table (16): Arithmetic means and standard deviations for the post-measurement of critical thinking levels according to the cultural environment of the father and mother

Educational Culture	Group.	No	Post Measurement	
			Averages	SD
Primary	Father	2	95.9063	4.24264
Preparatory		5	59.4605	25.96729
Secondary		28	57.1071	23.33481
(Bachelor's)		16	39.8205	29.00086
(Master's)		5	58.7152	12.49800
Secondary	Mother	32	66.4688	24.63669
(Bachelor's)		18	66.1667	22.13927
(Master's)		6	64.6667	33.30265

It is noted from table (16) that there are clear differences between the arithmetic means of the post-measurement of levels of critical thinking according to the cultural environment of the father and mother. To verify the significance of these differences, Use the analysis of covariance (ANCOVA) for the post-measurement test of thinking skills within the framework of critical thinking, according to the cultural environment of the father and mother, after neutralizing the effect of their pre-measurement, as shown in table (17).

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Table (17): Analysis of variance accompanying the post-measurement of the thinking skills test within the framework of critical thinking for the experimental group according to the variable of the educational culture of the father and mother, after neutralizing the effect of the pre-measurement on them

Source of variance	Sq Sum	Freedom Degree	Sq Averages	F Value	Sig
Pretest	56292.343	1	56292.343	494.105	0.000
Father's Culture	564.069	5	112.814	0.990	0.434
Mother's culture	754.590	2	377.295	3.312	*0.045
Error	5240.682	46	113.928		

*Statistically significant at the significance level (*p < 0.05)

It is clear from table (17) that there are no statistically significant differences at the significance level (α ≤0.05) is due to the father's culture variable; The calculated F value was (0.99), with statistical significance (.434). While it is clear from the table above that there are statistically significant differences at the significance level (α ≤0.05), attributed to the mother's culture variable. The calculated F value was (3.31), with statistical significance (.045), and to reveal the location of the differences between the arithmetic means of the thinking skills test within the framework of critical thinking for the experimental group according to the mother's educational culture variable after neutralizing the effect of their pre-measurement, a least difference test was conducted. D (LSD) and table (20) illustrate this.

The results (LSD) test for post-comparisons between the arithmetic means on the thinking skills test within the framework of critical thinking for the experimental group according to the mother's educational culture variable as shown in table (18).

Table (18): The results of the (LSD) test for pairwise comparisons between the arithmetic means on the critical thinking skills test within the framework of critical thinking for the experimental group according to the educational cultural variable

Mother's Culture (A)	Mother's Culture (B)	Variation among averages (A-B)	Sig
Secondary	1st Degree (BA)	-9.339-*	0.014
	2nd Degree (MA	-4.218-	0.452
First Degree (BA)	Secondary	9.339*	0.014
	2nd Degree (MA)	5.121	0.330
Second Degree (MA)	Secondary	4.218	0.452
	1st Degree (BA)	-5.121-	0.330

It is clear from table (18) that there are statistically significant differences at the significance level (α ≤0.05)Testing thinking skills within the framework of critical thinking for the experimental group, according to the mother's educational culture variable, and the differences between a secondary level and a first degree (bachelor's degree) in favor of the first degree (bachelor's degree), meaning that the enrichment program had a greater impact on students with a higher education level. Their mothers have a high level of first degree (bachelor's degree).

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Results Related to the Fourth Question

"Are there statistically significant differences in terms of the contribution of the enrichment program on the subject of the Arabic language in enabling fifth grade students with giftedness and creativity to possess thinking skills within the framework of critical thinking, due to the student's position in the family?"

To answer the fourth question, the arithmetic means and standard deviations were calculated for the scores of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement according to the variable of the student's rank in the family, and the results of table (19) show this.

Table (19): Arithmetic means and standard deviations of the scores of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement according to the variable of the student's rank in the family

The position of the student in the family	No.	Post Measurement	
		Averages	SD
1st born	12	89.0833	7.87930
Middle	11	85.1818	8.87489
The youngest	5	88.6000	7.43640

It is clear from table (19) that there are clear apparent differences between the average performance of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement, after applying the enrichment program according to the variable of the student's rank in the family. The average performance of the eldest child on the post-measurement was (89.08), while the average performance of the middle child was (85.18), while the average performance of the youngest child was (88.60), and this indicates differences between the two averages.

To verify the fundamentality of these differences; Use the analysis of covariance (ANCOVA) for the post-measurement of the thinking skills test within the framework of critical thinking, according to the variable of the student's rank in the family after neutralizing the effect of their pre-measurement, as shown in table (20).

Table (20): Analysis of variance accompanying the post-measurement of the thinking skills test within the framework of critical thinking for the experimental group, according to the variable of the student's rank in the family after neutralizing the effect of their pre-measurement

Source of variance	Sq Sum	Freedom Degree	Sq Averages	F Value	Sig
Pretest	184634.567	1	184634.567	2728.450	0.007
The position of the student in the family	95.211	2	47.606	0.703	0.504
Error	1691.753	25	67.670		

*Statistically significant at the significance level (*p < .05)

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It is clear from table (20) that there are no statistically significant differences at the significance level (α ≤ 0.05) is due to the variable of the student's position in the family; The calculated F value was (0.703), with statistical significance (.504).

DISCUSSIONS AND RECOMMENDATIONS

The Discussion of the Results Related to Measuring the Performance of Students in the Study Sample

It was found, through the use of this combination of internationally approved tools for accurate diagnosis and a rapid survey to select students with giftedness and creativity in the sample of the current study, that (55%) of these students had passed the average of the lists for monitoring the distinctive traits and characteristics of gifted students, in addition to passing percentage. (110 and above) in the creativity potentiality scale, despite this; their school academic achievement in the Arabic language is (70% or less).

The researcher interprets this result on the basis of some studies that indicated the effectiveness of the international diagnostic standards that were used in this study in measuring what they were prepared for, such as the creativity potentiality measurement diagnosis "EPOC" (Barbot, Besanncon, & Lubart, 2016; Renzulli JS, 2002).

The researcher explains the paradox between academic achievement and measures, citing Arabic language curricula's inability to consider gifted students' interests, abilities, and learning patterns... (Yamin, 2017; Alor, 2000; Ambrose & Sternberg, Creative Intelligence in the 21st Century Grappling with Enormous Problems and Huge Opportunities, 2016; Renzulli, 2016a; Amara & Schnell, 2007; Robinson, 2009).

While this result differed with each study (Goldring, 1990; Kulik, 1991) which showed the positive relationship between diagnostic measures and enrichment programs for gifted students and their academic achievement.

The Discussion of the Results Related to the First Study Question

"Are there statistically significant differences in terms of the contribution of the enrichment program on the subject of the Arabic language in enabling fifth grade students with giftedness and creativity to possess thinking skills within the framework of critical thinking due to the level of potential of creativity?"

It was clear from the results of table (10) that there were statistically significant differences at the significance level (α ≤ 0.05) between the average performance of the experimental and control groups on the thinking skills test within the framework of critical thinking in the (post) measurement, attributed in favor of the experimental group; Meaning that the applied enrichment program was effective in improving the level of thinking skills within the framework of critical thinking.

The researcher discusses the positive impact of enrichment programs in gifted education, based on scientific theories. The study uses a scale for diagnosing potential of creative abilities (EPoC) and develops enrichment activities to develop critical thinking skills among gifted students, harmonizing these theories throughout the process. (Ambrose &

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Sternberg, Creative Intelligence in the 21st Century Grappling with Enormous Problems and Huge Opportunities, 2016; Newtoon, 2012; Newtton, 2014; Saly & Renzulli, 2016b), which contributed to the process of combining enrichment features with the characteristics of the gifted and creative student.

The Discussion of the Results Related to the Second Study Question

"Are there any statistically significant differences in terms of the contribution of the enrichment program on the subject of the Arabic language in enabling fifth grade students with giftedness and creativity to possess thinking skills within the framework of critical thinking due to gender?"

It was clear from the results of the second question, according to table (14), that there were statistically significant differences at the significance level ($\alpha \leq 0.05$) between the average performance of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement, after applying the enrichment program due to the gender variable; It is noted that these differences are in favor of females. This indicates that the enrichment program affected females more than males.

The researcher reveals that females excel in linguistic skills, organizing ideas, investigating similarities and differences, taking responsibility, commitment, and achievement motivation, leading to better critical thinking skills in the Arabic language enrichment program.

The results of this study were in agreement with the study of (Khamad, 2021; Bobo, Shabib, and Shariba, 2018; Al-Hajjajh and Abu Awad, 2017; Hamadna and Assi, 2015; Al-Nabhani, 2010; Askoul, 2009; Nofal and Marhi, 2008). While this result differed with each of the studies (Al-Enezi, 2006; Hamdan and Abbas, 2014; Al-Haddabi and Al-Ashwal, 2012; Al-Jaafra and Al-Kharabsheh, 2007; Afaneh, 1999), all of which showed that there are no differences between females and males in the level of critical thinking.

The Discussion of the Results Related to the Third Study Question

"Are there statistically significant differences in terms of the contribution of the enrichment program on the subject of the Arabic language in enabling fifth grade students with giftedness and creativity to possess thinking skills within the framework of critical thinking due to the cultural environment?"

It appeared from the results of the third question, according to table (16), that there were no statistically significant differences at the significance level ($\alpha \leq 0.05$) between the average performance of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement, after applying the enrichment program, due to the father's culture variable; While differences appeared due to the mother's culture variable; These differences appeared in the results of table (20) between a secondary level and a first degree (bachelor's degree) in favor of a first degree (bachelor's degree), meaning that the enrichment program had a greater impact on students whose mothers' level of education was high to the level of a first degree (bachelor's degree).

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The researcher posits that a family's cultural level, particularly the mother's, significantly influences the investment in a gifted son's the potentially gifted, thereby motivating his creative energies. (Aouf, 2008; Gaddafi, 2000).

The mother is also the first and primary custodian of her gifted son, as she is the one who spends a lot of effort and time with him, sharing with him and following up with him in meeting his needs since his birth (Suleiman, 2014). The mother's cultural background and university education significantly aid in caring for her gifted child, identifying their talents and providing an environment that stimulates their thinking skills and creativity. (Louis & Lewis, 1992).

This result was consistent with the results of the interviews conducted by the researcher, and with each study (Cheung, Lubart, & Lau, 2016; Devrise & Lubart, 2017; Kaya, 2020; Lubart, 2012; Barbot, Besanncon, & Lubart, 2016).

The Discussion of the Results Related to the Fourth Study Question

"Are there statistically significant differences in terms of the contribution of the enrichment program on the subject of the Arabic language in enabling fifth-grade students with giftedness and creativity to possess thinking skills within the framework of critical thinking due to the student's position in the family?"

The results of the fourth question in table (19) showed that there were no statistically significant differences at the significance level ($\alpha \leq 0.05$) between the average performance of the experimental group members on the thinking skills test within the framework of critical thinking in the post-measurement, after applying the enrichment program, due to the variable of the student's position in the family.

The researcher explains this result by saying that the cultural and social family environment in which the gifted son lives, regardless of his position in the family, may give him a number of special factors that contribute to investing his thinking and creative skills. The child's giftedness and creativityand creativity may be affected by the cultural, material and social family environmental factors, not only by cognitive and personal factors (Lubart, 2012; Yamin, 2017).

The positive family atmosphere, family culture, and providing material and moral stimuli are all factors that contribute to building self-confidence and investing in the creative and critical skills of children with the potentially gifted, by giving them opportunities to practice various activities that enhance Their talents (Aouf, 2008; Al-Abdali, 2010).

This result agreed with a study (Lubart, 2012), while this result differed with the study of (Al-Abdali, 2010); (Gross, 1993; Silverman & Kearney, 1989; Terman, 1925), which showed that the firstborn child, or the only one, or the youngest, or in a family that includes the fewest children, is the son who is more connected and in contact with his family and social environment, which contributes to Investing in his personal and linguistic talents and potential of creativity.

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Recommendations

1) The researcher recommends training teachers and supervisors in using the "Epoch" diagnosis, identifying gifted students' behavioral traits, and providing effective student care, considering factors like religion, state, and family status.
2) A study aims to assess the effectiveness of enrichment programs in enhancing critical thinking skills among gifted and creative students in various cognitive fields, including Arabic.
3) Conducting a study to verify the contribution of enrichment programs to developing the thinking skills of students with giftedness and creativity in other frameworks of thinking, such as problem solving, creativity, communication, and solving future problems.

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