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The Role of the Teacher in Developing Creativity and Innovative Thinking among Students in the Education of Liwa al-Muwaqar from Their Point of View

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Abstract
The study aimed to identify the role of the teacher in developing creativity and innovative thinking among students in the education of Liwa Al-Muwaqar from their point of view. The distinguished, they were selected in the accessible way. The researcher used the questionnaire as a tool for collecting information and data related to this study. The tool included (30) paragraphs divided into two fields, the first field: creativity practices and innovative thinking (15) paragraphs, the second field: the requirements of creativity and innovative thinking by (15) paragraphs, the results of the study showed the following: The second field (requirements of creativity and innovative thinking) came with an arithmetic average of (2.65) and a high degree and first place, followed by the first field (creative practices and innovative thinking) with an arithmetic average of (2.56) and a high degree and the last And in the field of "Creative Practices and Innovative Thinking" the highest was for Paragraph No. (4), which states "I train students to respect the other opinion" with a mean of (2.93) and a high degree, followed by a Paragraph No. (14), which states "the formation of positive attitudes on students' work proficiency" with an average of (2.84) and a high degree and in second place, the field of "creative and innovative thinking requirements" ranged between (2.37-2.89), the highest was for Paragraph No. (6) Which states "respect for students who present new, unfamiliar creative ideas" with a mean of (2.89) and a high degree, followed by paragraph No. (2) which states "I train my students to try to solve their problems on their own" with an average of (2.84), and the researcher recommended the following Increasing interest in providing educational activities that depend on the use of modern educational technologies, and they played the role of scientists among students and frequented libraries to know the origins of inventions and the conditions that led to innovation and education of creativity among scientists.
Keywords: teacher, students, creativity and innovative thinking, education of Liwa al-Muwaqar.
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INTRODUCTION

The era of technological development in which the whole world lives is a small information village that represents the epitome of creative minds resulting from innovative and creative thinking. Therefore, it is the duty of educational institutions in light of the era of knowledge and competition to reach total quality (Al-Qallaf and Al-Azmi, 2005).

Today, innovation enjoys wide interest among all societies, because of its importance in construction and progress, especially that the world is witnessing rapid change, whose title is increasing scientific and technological progress in various fields of knowledge, and maintaining this progress requires the explosion of scientific and innovative creative energies in society. With the acceleration of information and the huge explosion of knowledge, this has been accompanied by many technological revolutions and changes in all fields, and it is no longer possible to confront these challenges except through modern and innovative learning methods and methods that develop the innovative thinking of learners.

A follower of the movement to stimulate interest in innovators and focus on the need to reveal them and help them unleash their innovative energies, notes the growth of a wide movement calling for the need to detect and diagnose innovators, provide them with the appropriate climate, and provide educational courses and programs that meet their needs, in order to create institutional structures and structures capable of dealing With such innovators and maintaining their continuity on the one hand, and working to develop these capabilities on the other (Al-Zaydi, 2009).

The task of the educational process appears in developing the thinking and creativity skills of learners in the light of activating different and appropriate teaching strategies with the aim of developing students' abilities to keep pace with the future process in life. The recent trends focus on providing students with kinetic concepts related to life skills, which he uses in his daily life and which give him early benefit in innovative creativity (i.e. accelerating the acquisition of kinetic concepts)

The teacher, by virtue of his position and his permanent contact with students, is the tool of the educational system that can determine the fate of all efforts made to discover and develop the talents and creativity of

students. The teacher has the greatest role in developing or restraining the innovative and creative abilities of students, and he is responsible for providing an environment that encourages and develops their higher mental abilities. Teaching and appropriate educational activities that would contribute to the development of their creative abilities.

THE STUDY PROBLEM

Our modern life requires creative and innovative individuals who are able to devise original solutions to the urgent and renewable problems they encounter in order to be able to achieve compatibility with changing circumstances, and to be more able to follow the data of modern civilization in various fields using modern technological methods based on the desire to add and renew in the face of situations.The new curriculum is flexible enough, and that there is an urgent need for standards of innovative thinking as it is an important component of school education.

On the other hand, the scarcity of measures of innovative thinking within the limits of the researcher's knowledge in the Jordanian environment, as well as the absence of a scale of innovative thinking with good psychometric properties according to the words and vocabulary that students live today as they face the age of informatics, the Internet and the computer represents the problem of this research, which the researcher touched on in building a scale for students.

THE PROBLEM OF THE STUDY IS DETERMINED IN ANSWERING THE FOLLOWING STUDY QUESTIONS:

THE FIRST QUESTION: What is the role of the teacher in developing creativity and innovative thinking among students in the education of Liwa al-Muwaqar from their point of view?

THE SECOND QUESTION: There are statistically significant differences at the significance level ($\alpha = 0.05$) between the estimates of the study sample members for the role of the teacher in developing creativity and innovative thinking among students in the education of the Liwa al-Muwaqar from their point of view due to the variables (gender, years of experience)?

OBJECTIVES OF THE STUDY:

- Recognizing the role of the teacher in developing creativity and innovative thinking among students in the education of Liwa al-Muwaqar from their point of view.
- Detecting statistically significant differences between the estimates of the study sample members for the role of the teacher in developing creativity and innovative thinking among students in the education of the Liwa al-Muwaqarfrom their point of view due to the variables (gender, years of experience).

THE IMPORTANCE OF STUDYING:

THE THEORETICAL AND PRACTICAL IMPORTANCE WERE ADDRESSED AS FOLLOWS:

THEORETICAL SIGNIFICANCE: In light of the contemporary developments that the world is witnessing, the need to nurture creators who are able to think innovatively, the future in which we live depends more on human capabilities and talents than on natural resources. Therefore, the creators are the greatest hope for building the future.

PRACTICAL IMPORTANCE: The results of this study will benefit those working in the field of teaching, including teachers, educational supervisors, school directors, and the Ministry of Education with all its affiliates.

DEFINITIONS AND PROCEDURAL TERMS:

CREATIVITY: Mustafa (2014) defines it as: "The individual's ability to produce new ideas with the help of others to generate these ideas, and to reformulate his previous experiences, which enable him to use imaginative skills, which help in the emergence of the new, rare and innovative, which makes the degree of benefit from These ideas are great, and enable him to develop modern future visions." From this definition it becomes clear the importance of creativity in developing the performance of employees in the organization and the role of the leader in that

- **PROCEDURAL DEFINITION:** enabling school students to practice ways of thinking and mental and intellectual abilities, and to seek and invent modern and new means and methods, with the aim of developing creativity and innovative thinking.
- **INNOVATION:** Guilford defines it as: "formations and organizations that are composed of a number of simple mental abilities and differ according to the field of innovation" (Tegza, 2008).
- **INNOVATIVE THINKING:** Al-Harthy (2009) defined it as the ability to produce a large number of new and unusual ideas that depart from the cognitive framework of the educated individual and the environment in which he lives. Therefore, innovative thinking is characterized by a large number of fluency, flexibility and originality. It is defined procedurally as the degree that an individual obtains on the creativity and innovative thinking scale.

THE LIMITS OF THE STUDY:

THIS STUDY IS LIMITED TO THE FOLLOWING LIMITS:

1.Objective limits: the role of the teacher in developing creativity and innovative thinking among students in the education of Liwa al-Muwaqar from their point of view.

2.Spatial boundaries: Schools of the Directorate of Education Al-Muwaqar.

3.Temporal limits: This study was applied in the second semester of the year 2022/2021.
3.Human limits: The study was limited to teachers of Liwa al-Muwaqar education schools.

THEORETICAL FRAMEWORK AND PREVIOUS STUDIES

CREATIVITY CONCEPT.

Creativity in general has attracted the attention of writers and researchers, so we find many definitions of creativity and administrative creativity. Creativity can be defined as: it is new and useful ideas related to solving specific problems in the organization, or re-combining known patterns of knowledge in new and distinctive forms (Al-Sarn, 2000).).

Creativity has been defined as: the behavior of institutions in their reliance on new ideas or methods in the field of introducing a new product or using new methods or introducing new developments to them (King & Kllgler, 2000), and creativity is also defined as the successful implementation of creative ideas that create a competitive advantage for the organization that helps it. On the rapid response of individuals and the requirements of institutions (Cropley, 2011).

Administrative creativity is defined as: the ability to own a new idea through imagination and rapid visualization of various solutions in the face of any problem, as there are four axes for the new idea: personal, authentic, useful, and meaningful to reach the solutions that the creator wants (Al-Barjawi, 2015).

The researchers' classifications of the elements of creativity varied, and these classifications included many components of creativity, including "fluency, flexibility, originality, expansion, quantity and quality" (Al-Suwaiti, 2009). The creative process consists of different elements in which the individual is considered the cornerstone of the organization to move towards administrative creativity through his different creative abilities. The creative individual is characterized by many creative abilities that distinguish him from other individuals. A number of researchers mentioned a number of creative abilities, which include the mental preparations that people need to have in order to perform types of creative behavior, which characterize a creative person capable of creative thinking, the most important of which are the following: (The Wheel, 2010)

First: Fluency: Fluency is often represented by an individual's ability to produce a large number of ideas in a specific period of time, and it can be said that a person is creative and superior in terms of the number of ideas that he presents on a particular topic during this period, that is, he has a high ability to generate ideas. Producing a large number of ideas, compared to other people and with equal surrounding conditions, it is more creative in coming up with feasible ideas on which the organization can build fixed plans. From this point of view, the differences between people are an essential and important factor in unlocking the talent of creativity. Fluency is divided into several Sections are: (Al-Shaqaha, 2004)

- Fluency of words: that is, the speed of producing words or units of expression according to certain conditions in their construction or composition.
- Fluency of association: that is, the speed of producing images with specific characteristics in meaning.

Fluency of ideas: that is, the speed with which a large number of ideas and intellectual images are reported in a situation.

- Fluency of expression: that is, the ability to express ideas and easily formulate them in words or images to express these ideas in a way that is related to and appropriate to others.

Fluency in shapes: evaluating some additions to certain shapes to form real drawings.

Fluency, through the above, means that it is the ability to recall as many ideas as possible for a particular situation within a short period of time, and it also means the multiplicity of ideas that a creative individual can come up with.

SECOND, FLEXIBILITY.

Flexibility means looking at things from different angles, new and unconventional, or other than what ordinary individuals are accustomed to. Flexibility is a major factor in innovation and inventions (Al-Serafy, 2003). It is the ability that the individual has to change his view of the problem he faces or treats by looking at it from different angles, and flexibility is also considered the ability to take different ways and think in different ways or with a classification different from the normal classification, in addition to looking at the problem from different dimensions from ordinary individuals , which is the degree of ease with which a person changes a particular position or point of view, and not intolerance to ideas in themselves, and it also means looking at things from several angles (Al-Surour, 2002).

FLEXIBILITY CAN BE CLASSIFIED INTO TWO MAIN PARTS: (IBRAHIM, 2002):

• **Automaticflexibility**: It includes the individual's ability to automatically give a variety of information that does not belong to the category of one origin. It also refers to the flexibility that appears in the individual without the necessary need required by the situation, so the person gives a number of responses, where the flexibility factor highlights the importance of changing the direction of our thoughts, while the factor of Fluency matters only these ideas.

• **Adaptive flexibility**: It is a person's ability to change his mental orientation when he is looking to solve a specific problem, and it can be viewed as the positive side of mental adaptation. A person who is flexible in

terms of mental adaptation is the opposite of a mentally rigid person.
We conclude that flexibility is mainly adapting and adapting to changes in the surrounding environment on the one hand, and with change by applying new and creative ideas on the other.

THIRD: ORIGINALITY.

It is the creation of new, distinct ideas that are not linked to previous repetitive ideas, so that they are unfamiliar or expected in the long run (Al-Surour, 2002). A number of researchers and specialists agreed that originality is the ability to produce authentic responses, that is, their repetition is few in the statistical sense within the group to which the individual belongs, that is, the lower the level of prevalence of an idea, the higher the level of its originality (Mansour, 1989).

AUTHENTICITY INCLUDES THREE BASIC ASPECTS:

Uncommon response: The ability to produce unique and rare ideas.
The long-term response: the ability to mention distinct ideas in the long run.
Skilled response: the ability to produce skilled responses.
Authenticity also refers to the creator's ability to produce original ideas, that is, he moves away from the usual or common, as he does not repeat the ideas of others, and also refers to the creator's ability to produce original ideas of little repetition within the group to which he belongs. And going out of the ordinary (Amr, 2017).

AUTHENTICITY DIFFERS FROM FLUENCY AND FLEXIBILITY IN THE FOLLOWING:

Authenticity does not indicate the amount of creative ideas that the individual gives as in fluency, but rather it is concerned with the value of ideas and that originality does not indicate the individual's aversion to repetition of his personal perceptions, but rather it refers to his aversion to repetition of what others do, and thus is distinguished from flexibility, and means that the individual The creator is distinguished by his ideas from others and finds solutions to challenges that are unconventional, and originality represents the highest levels of creativity (Al-Hizan, 2002).

Through the foregoing, we find that originality is the creator's production of unconventional and familiar ideas described as excellence and innovation that contribute to achieving the desired goals.

DEFINITION OF INNOVATIVE THINKING:

Thinking is one of the finest features that God Almighty has distinguished man from other living creatures, to employ him in life, and to keep pace with the rapid developments witnessed by the third millennium. Therefore, the issue of thinking in psychology and in other sciences and in life in general occupies a major place, to the extent that we say that the current era is the era of interest in the psychology of thinking, because the task of thinking lies in finding appropriate solutions to the urgent theoretical and practical problems facing man. It is constantly renewed in nature and society, which prompts it to constantly search for new ways and methods that enable it to overcome the difficulties and obstacles that may arise in the future, and this provides opportunities for progress and advancement (Al-Quraini, 2016).

THERE ARE A NUMBER OF FACTORS AND ATTRIBUTES THAT POSITIVELY OR NEGATIVELY AFFECT INNOVATIVE THINKING, AND THEY ARE:

a) **Personal traits:** such as flexibility, initiative, sensitivity to stimuli, perseverance, motivation, independence, temperament, self-assertion, humor and control. Individuals who are characterized by such characteristics are more capable of creativity and innovation (Saada, 2003). One of the most important of these qualities is the individual's high sensitivity to problems.

b) **Simulation:** imitating others and adhering to the behavioral patterns prevailing among them reduces the chances of innovation and creativity in the individual. As for the tendency to independence, excellence and indifference to the opinions of others, it would contribute to the development of his innovative behavior (Jarwan, 2007).

c) **Censorship:** The nature of the environment in which individuals grow up affects the development of their innovative thinking capabilities. Individuals who grow up in strict environments characterized by authoritarianism, criticism and lack of freedom to express thought and opinion are less able to think innovatively compared to individuals who grow up in environments that provide encouragement and support to them. Ali, 2012).

d) **Methods of Education:** Educational methods based on acceptance, tolerance, support, encouragement and providing the learner with an opportunity for dialogue, discussion and expression of opinion enhance his innovative behavior, while methods based on indoctrination and provision of ready-made information limit this behavior (Zaghloul, 2004).

CHARACTERISTICS AND CHARACTERISTICS OF THE INNOVATOR:

Innovative psychologists studied in different ways and came up with a set of characteristics that distinguish an innovative person, and they can be summarized as follows:

First: An individual's information balance plays an important role in his innovative thinking, and this information requirement is a necessary but not sufficient condition. The innovator generally outperforms the average person in his wealth of stored information.

Second: Guilford believes that what he calls "human" plays an important role in the thinking of the innovator. Innovation in mathematics begins with steps, in music with a basic idea, in poetry, jurisprudence and novel with a general structure, and in painting with the subject of (Motiev), as well as Guilford is concerned with (Guilford)) also with what he calls transfers.

Third: Make sure that the innovative person must have an appropriate degree of intelligence, which is usually higher than the average. Their scores in innovation tests range from very low to very high, and those who get low scores in intelligence tests rarely get high scores in innovation tests. It requires an appropriate degree of intelligence that becomes a necessary and not sufficient condition for innovation (Furnham & Bachtiar, 2008).

Fourth: The most important motives of innovators are their desire to benefit from their perceptual, cognitive and expressive capabilities, meaning that innovation has an internal self-motivation (such as cognitive motives) in addition to the motives of reconnaissance and the internal aspect of appreciation and self-realization.

Ahmed (2016) also mentioned a number of qualities and characteristics that characterize the innovator, including:

1. **Perseverance:** innovation and problem solving are serious work that requires the mobilization of time and effort and requires knowledge gained from the beginning and continuous research.
2. **Flexible imagination**: the innovative person needs to think, fantasize and have strange ideas that no one has thought of before.
3. **A future for mistakes**: In modern society mistakes cannot be forgiven, but failure is an opportunity, and mistakes prove that something has happened. A creative person accepts mistakes because they lead him to success.
4. **Not being affected by prejudices**: Old, preconceived ideas about things hinder a deep view of things and impede acceptance of change and development.

METHODS AND METHODS FOR DEVELOPING INNOVATIVE THINKING. AL-SUROUR (2005) MENTIONED A NUMBER OF METHODS AND METHODS FOR DEVELOPING INNOVATIVE THINKING, AS FOLLOWS:

-Imagination: Jatlen (1993) defined it as a mental processing of sensory images in the light of the absence of the original sensory source, and it includes preparation and discussion of imaginary images to reach the goal, and it is linked to drama, hence the attempt to find a relationship between creative drama and innovative thinking.

-Brainstorming: Zaitoun (2001) considers it one of the most important methods of group discussion, in which the members of a group under the supervision of the teacher encourage the spontaneous and spontaneous generation of a large number of diverse and innovative ideas in an open atmosphere and choose the appropriate ones.

-Harmony of scatterings: It involves linking different elements with each other. This method is characterized by the frequent use of metaphors, metaphors and similar forms on a regular basis to reach creative problem solving (Bligh, 2013).

PREVIOUS STUDIES

In a study conducted by Ajeeb (2008), it sought to identify the effectiveness of the problem-centered learning strategy associated with learning resource centers on developing achievement and innovative thinking in biology for first-year secondary school students in the city of Makkah. On a sample of (80) female students from the first grade of secondary school in Makkah Al-Mukarramah, they were divided into two groups, one of them is an experimental group and consists of (40) female students and the other is a control group consisting of (40) female students, as the problem-centered learning strategy was applied to the group Experimental, and an achievement test was prepared in the plant and human senses units, as well as a test in innovative thinking. The study showed many results, the most important of which is the presence of statistically significant differences between the average members of the sample in the test of innovative thinking as a whole in favor of the experimental group.

The study of Al-Muhamadi (2008) aimed to identify the effectiveness of the use of the computer (free hand) in teaching the Islamic decoration unit of the art education course on developing innovative thinking among second-grade female students in the city of Makkah Al-Mukarramah. The study was applied to a sample of (54) female students of the second year of secondary school in the city of Makkah Al-Mukarramah, distributed into two groups (experimental and control), with (27) female students for the experimental group and (27) female students for the control group. The two groups were subjected to a pre-test and a test After me, the study found that there were statistically significant differences in the abilities of innovative thinking (fluency, originality, details, and thinking abilities as a whole), in favor of the experimental group.

The study of Al-Zaydi (2009) aimed to know the impact of active learning on developing innovative thinking and academic achievement in science for third-grade students in middle school compared to the traditional method. The third intermediate class in the city of Makkah Al-Mukarramah, which was distributed into two groups (experimental and control), with (29) students for the experimental group and (27) female students for the control group. A set of dimensions represented in (fluency, flexibility, originality, innovative thinking abilities as a whole), after verifying its validity and stability. details, and overall ability to think

innovatively in favor of the experimental group.

The study of Al-Hadabi et al. (2011) also aimed to identify the level of creative thinking skills among educated students in the scientific departments of the College of Education and Applied Sciences - Hajjah city. To achieve the objectives of the study, the researchers followed the quasi-experimental approach. Educated students in the scientific departments (chemistry - physics - biology) in the College of Education - Hajjah city, where the Torrance Verbal Picture Test (A) was used to measure innovative thinking skills (fluency - flexibility - originality), which was translated into Arabic by Fouad Abu Hatab and Abdullah Suleiman (1976), and the study concluded that the level of innovative thinking skills among educated students in scientific departments is weak, and there are statistically significant differences between the average scores of student teachers in the level of creative thinking skills according to the gender variable in favor of females, and there are no statistically significant differences in the level of skills Creative and critical thinking according to the variable of specialization.

COMMENTING ON PREVIOUS STUDIES

All previous Arab studies aimed to know the impact of many educational strategies in developing innovative thinking skills (fluency, flexibility, originality, innovative thinking abilities as a whole), but there was no previous local or Arab study that dealt with the role of the teacher in developing creativity and innovative thinking among Students in the schools of education Liwa Al-Muwaqar. It is one of the first studies to be conducted in Loa, and the researcher has benefited from previous studies in following the appropriate scientific methodology in building the scale and selecting the study sample, the mechanism of its application.

STUDY METHODOLOGY:

The current study followed the descriptive approach, to study a problem or a specific scientific phenomenon; In order to reach logical explanations for it, this method was used to study the role of the teacher in developing creativity and innovative thinking among students from their point of view in Liwa Al-Muwaqar.

STUDY COMMUNITY:

The study population consisted of all male and female teachers in the schools affiliated to the Directorate of Education, Liwa Al-Muwaqar.

THE STUDY SAMPLE:

The study sample consisted of (95) male and female teachers in Liwa Al-Muwaqar schools, they were chosen by the available method, and Table (1) shows the distribution of the study sample members according to the study variables (gender, years of experience).

TABLE (1): DISTRIBUTION OF STUDY SAMPLE MEMBERS ACCORDING TO PERSONAL CHARACTERISTICS

Variable	Category	Frequency	Percentage
Gender	Male	45	47.4
	Female	50	52.6
	Total	95	100.0
Experience	less than 5 years	24	25.3
	From 5 years - 10 years	38	40.0
	More than 10 years	33	34.7
	Total	95	100.0

STUDY TOOL

After reviewing the theoretical literature and previous studies related to the role of the teacher in developing creativity and innovative thinking among students from their point of view in Liwa Al-Muwaqar, the researcher used the questionnaire as a tool for collecting information and data related to this study, which was developed by Al-Azmi (2009); Because it fits with the nature of the study in terms of its objectives, methodology, and its ability to collect data, information and facts in a specific reality and in a relatively short time. The tool included (30) paragraphs divided into two areas, the first field: creativity practices and innovative thinking (15) paragraphs, the second field: creativity and innovative thinking requirements by (15) paragraphs, where the paragraphs were formulated in a smooth and clear way, the study sample members can answer On it, the scale was designed with a five-step gradation (always, sometimes, rarely) and numerical scores were given, respectively: (3, 2, 1). The validity and reliability of the scale were verified by the apparent validity and internal consistency.

VIRTUAL VALIDITY

The apparent validity of the questionnaire was verified by presenting it to a committee consisting of (4) specialized arbitrators in educational administration to ascertain the suitability and ability of the tool to achieve the objectives of the study.To come up with the best instrument that is able to represent what you are prepared to measure. The validity and reliability of the scale were verified by the apparent validity and internal consistency.

THE FOLLOWING SCALE WAS USED TO CORRECT THE TRIPLE SCALE ACCORDINGLY, IT WILL BE

1.66 – 1	**Low**
2.33 – 1.67	**Medium**
3 - 2.34	**High**

CALCULATION OF VALIDITY AND CONSTANCY

To verify the validity of the tool's construction, it was applied to an exploratory sample consisting of (30) individuals from the study population, but from outside the target study sample, in order to calculate the values of Pearson's correlation coefficients for the relationship of the paragraphs with the domain to which they belong, as in Table (2).

TABLE (2): CORRELATION OF THE PARAGRAPHS OF EACH FIELD WITH ITS TOTAL SCORE.

Item No	Pearson correlation coefficient	Item No	Pearson correlation coefficient
Creative practices and innovative thinking		**Creative practices and innovative thinking**	
1	**.757****	**16**	**.536****
2	**.627****	**17**	**.764****
3	**.802****	**18**	**.738****
4	**.517****	**19**	**.714****
5	**.613****	**20**	**.897****
6	**.696****	**21**	**.581****
7	**.719****	**22**	**.860****
8	**.677****	**23**	**.766****
9	**.573****	**24**	**.699****
10	**.522****	**25**	**.770****
11	**.573****	**26**	**.641****
12	**.531****	**27**	**.696****
13	**.783****	**28**	**.569****
14	**.620****	**29**	**.830****
15	**.881****	**30**	**.737****

CONSISTENCY

The stability of the study tool means the Consistency, reliability and ability of the results to predict, that is, the extent of concordance or consistency in the results of the questionnaire, as it was applied more than once in similar conditions. All the questions in the scale, and (Cronbach alpha) can also be interpreted as the internal stability coefficient between the answers, and indicates its high value on the degree of high stability and ranges between (0-1) and its value is acceptable at (60%) and above, and in other studies it is Acceptable at (70%) and above, and according to the following table (3) shows this.

TABLE (3): THE INTERNAL CONSISTENCY COEFFICIENT ACCORDING TO CRONBACH'S ALPHA EQUATION AND THE PEARSON CORRELATION COEFFICIENT FOR THE FIELD WITH THE TOOL AS A WHOLE.

Number	Field	Item No	Cronbach Alpha	Correlation coefficient of the domain for the tool as a whole
1	Creative practices and innovative thinking	**15**	**0.848**	**.738****
2	Creativity and innovative thinking requirements	**15**	**0.862**	**.714****
	Total	**30**	**0.833**	

** Statistically significant at the significance level (0.01).

The data in Table 3 indicate that the internal consistency coefficients according to Cronbach's alpha equation for the tool as a whole (0.940), which are statistically significant values and indicate the stability of the tool.

STUDY PROCEDURES

THE RESEARCHER DID THE FOLLOWING:

- Reviewing the educational literature and previous studies related to the topic of the current study.
- Determining the number of the study population and the sample
- Preparing the study tool in its initial form after reviewing the educational literature and studies related to the

subject of the study.

- Verify the significance of the validity and stability of the study tool to come up with the final image of the tool.
- Applying the study tool in its final form to the members of the target study sample on the specified date.
- Data encoding and statistical processing to answer the questions of the study, and to come up with appropriate recommendations in light of the findings of the study.

STUDY VARIABLES:

The study includes the following variables:

FIRST, THE TAXONOMIC VARIABLES:

Gender has two levels (male and female).

Years of experience: It has three categories (less than 5 years, 5 to 10 years, and more than 10 years).

SECOND: THE MAIN VARIABLE:

The role of the teacher in developing creativity and innovative thinking among students from their point of view in Liwa Al-Muwaqar.

STATISTICAL METHODS USED:

Based on the nature of the study and the objectives it sought to achieve, the data were analyzed using the Statistical Package for Social Sciences (SPSS) programs, and the results were extracted according to the following statistical methods:

1. Pearson correlation coefficient
2. Cronbach's alpha coefficient: to calculate the stability of the study tool.
3. Frequencies and percentages of personal variables.
4. Arithmetic averages and standard deviations of the tool's domains and items.
5. Variable susceptibility test (sex)
6. One-way analysis of variance for the effect of a variable (years of experience)

THE FIRST QUESTION: WHAT IS THE TEACHER'S ROLE IN DEVELOPING CREATIVITY AND INNOVATIVE THINKING AMONG STUDENTS FROM THEIR POINT OF VIEW IN LIWA AL-MUWAQAR?

To answer this question, the arithmetic averages and standard deviations of the teacher's role in developing creativity and innovative thinking among students were calculated from their point of view in the Liwa Muwaqar, taking into account their descending order according to their means, and Table (4) illustrates this.

TABLE (4): ARITHMETIC AVERAGES AND STANDARD DEVIATIONS OF THE STUDY TOOL FIELDS, TAKING INTO ACCOUNT THEIR DESCENDING ORDER ACCORDING TO THEIR ARITHMETIC MEANS (N = 95)

Field No	Fields	Arithmetic Mean	Standard Deviation	Rank	Level
2	Creativity and innovative thinking requirements	**2.65**	**0.32**	1	High
1	Creative practices and innovative thinking	**2.56**	**0.31**	2	High
	Whole Tool	**2.61**	**0.30**		High

It is noted from the results in Table (4) that the arithmetic averages of the domains of the teacher's role in developing creativity and innovative thinking among students from their point of view in Liwa Muwaqar ranged between (2.56-2.65), and the second field (the requirements of creativity and innovative thinking) came with an arithmetic average of (2.65) and a degree of High and in the first place, followed by the first field (creative practices and innovative thinking) with an arithmetic mean of (2.56) and a high degree and the last, and the arithmetic mean of the tool as a whole was (2.61) and a high degree. The researcher attributes the result to the effective role of the teacher in developing creativity and innovative thinking among students, through daily practices with students, motivating them to be creative and innovative and giving them the opportunity to be inventors and creators. The school environment is prepared for students to develop and refine aspects of students' skills, through scientific and educational activities. And modern technologies that develop the faculty of creativity and innovation among students, and this confirms that there is a development of students' thinking and innovative abilities in schools in Liwa Al-Muwaqar. It differs with Al-Shehab's study (2003), whose results indicated the weakness of educational supervisors in developing a supervisory strategy to a large extent and the lack of possession of methods and skills that give the teacher how to deal with creative students.

The first area: practices of creativity and innovative thinking

THE ARITHMETIC AVERAGES AND STANDARD DEVIATIONS OF THE PARAGRAPHS OF THE "CREATIVE PRACTICES AND INNOVATIVE THINKING" WERE CALCULATED, TAKING INTO ACCOUNT THEIR DESCENDING ORDER ACCORDING TO THEIR ARITHMETIC MEAN, AS SHOWN IN TABLE (5).

No	Item	Arithmetic Mean	Standard Deviation	Rank	Level
4	Train the students to respect the opinion of others	2.93	0.26	1	High
14	Forming positive attitudes on the work proficiency of students	2.84	0.37	2	High
8	Training students to use information	2.74	0.44	3	High
3	Providing collaborative work activities among students	2.68	0.57	4	High
6	I encourage my students to make use of the various resources	2.68	0.47	5	High
9	Training students to connect new knowledge with existing knowledge	2.68	0.57	6	High
12	Developing self-evaluation skills among students	2.68	0.47	7	High
10	Training students to analyze knowledge	2.63	0.58	8	High
13	Training students on accuracy in educational performance	2.63	0.58	9	High
2	Training in creative thinking skills	2.47	0.60	10	High
11	Develop the skills of organizing selected knowledge	2.47	0.50	11	High
1	Critical thinking skills training	2.32	0.47	12	Medium
5	Providing computer-based educational activities	2.26	0.44	13	Medium
7	Provide visual and verbal exercises	2.26	0.55	14	Medium
15	Encouraging students to harm the opposing opinion until it is convinced of the correct one	2.11	0.92	15	Medium
	Whole field	**2.56**	**0.31**		**High**

It appears from Table (5) that the arithmetic averages of the paragraphs in the field of "creative practices and innovative thinking" ranged between (2.11 - 2.93), the highest was for paragraph No. (4), which states "Train students to respect the opinion of others" with an arithmetic average (2.93) and a high degree , followed by Paragraph No. (14) which states “the formation of positive attitudes to work proficiency among students” with an arithmetic average of (2.84) and a high degree and second place, and in the last rank Paragraph No. (15) which states “I encourage students to harm the opposing opinion until it is convinced of the correct one. With an arithmetic mean of (2.11) and a medium degree, and the arithmetic mean of the field of "creative practices and innovative thinking" as a whole was (4.35) and a high degree.

THE SECOND FIELD: THE REQUIREMENTS OF CREATIVITY AND INNOVATIVE THINKING

The arithmetic averages and standard deviations of the items in the field of "creativity requirements and innovative thinking" were calculated, taking into account their descending order according to their arithmetic means, as shown in Table (6).

TABLE (6): ARITHMETIC MEANS AND STANDARD DEVIATIONS OF THE ITEMS IN THE FIELD OF CREATIVITY AND INNOVATIVE THINKING REQUIREMENTS (N = 95).

No	Item	Arithmetic Mean	Standard Deviation	Rank	Level
6	Respect students who come up with new, unfamiliar creative ideas	2.89	0.31	1	High
2	I coach my students to try to solve their own problems	2.84	0.37	2	High
8	Adopting methods of dialogue and persuasion while respecting the other opinion	2.84	0.37	3	High
9	Develop aspects of self-discipline among students	2.74	0.55	4	High
13	Provide opportunities for students to demonstrate their knowledge and skills	2.74	0.44	5	High
14	It is better to reward correct behavior than to punish wrong	2.74	0.55	6	High
15	Respecting the student's freedom to think and form new ideas	2.74	0.44	7	High
5	Training students to arrange ideas in different ways	2.68	0.47	8	High
4	Train students to show cause-and-effect relationships	2.63	0.48	9	High
12	Provide opportunities for students to raise their level of thinking	2.63	0.58	10	High
1	I encourage the students to do the appropriate educational activities presented in the reading books	2.53	0.60	11	High
11	Providing educational opportunities based on a problem-solving approach	2.53	0.50	12	Medium
10	Free homework opportunities	2.47	0.50	13	Medium
7	Develop the students' self-adventurous aspects	2.42	0.50	14	Medium
3	Provide opportunities for students to play the roles of scientists	2.37	0.58	15	Medium
	Whole field	2.65	0.32		High

It appears from Table (6) that the arithmetic averages of the paragraphs of the "Creativity Requirements and Innovative Thinking" ranged between (2.37-2.89), the highest was for paragraph No. (6), which states "respect for students who present new, unfamiliar creative ideas" with an arithmetic average of (2.89).) and at a high degree, followed by paragraph No. (2), which states “I train my students to try to solve their problems on their own” with an arithmetic average (2.84) and a high degree and second place, and in the last place paragraph (3), which states “to provide opportunities for students to play the roles of scientists With an arithmetic average of (2.37) and a high degree, and the arithmetic mean of the field of "creativity requirements and innovative thinking as a whole was (2.65) and a high degree.

The second question: Are there individual statistically significant differences at the level (α = 0.05) between the responses of the sample members to the teacher’s role in developing creativity and innovative thinking among students from their point of view in Liwa Muwaqar due to the variables (gender, years of experience)?

FIRST: SEX

TABLE (7): THE RESULTS OF THE T-TEST TO REVEAL THE SIGNIFICANCE OF THE STATISTICAL DIFFERENCES BETWEEN THE AVERAGE RESPONSES OF THE STANDARD SAMPLE MEMBERS TO THE ROLE OF THE TEACHER IN DEVELOPING CREATIVITY AND INNOVATIVE THINKING AMONG STUDENTS FROM THEIR POINT OF VIEW IN LIWAMUWAQAR DUE TO THE VARIABLE (GENDER).

Field	Gender	Arithmetic Mean	Standard Deviation	T value	Freedom Degree	Error
Creative practices and innovative thinking	**Male**	**2.51**	**0.25**	**1.675-**	**93**	**0.097**
	Female	**2.61**	**0.34**			
Creative practices and innovative thinking	**Male**	**2.62**	**0.25**	**0.876-**	**93**	**0.384**
	Female	**2.68**	**0.37**			
Total	**Male**	**2.56**	**0.23**	**1.308-**	**93**	**0.194**
	Female	**2.64**	**0.36**			

Table (7) shows that there are no statistically significant differences at the level of statistical significance (α = 05.0) in all dimensions according to the gender variable.

SECOND: YEARS OF EXPERIENCE

TABLE (8): ARITHMETIC AVERAGES AND DEVIATIONS OF THE TEACHER'S ROLE IN DEVELOPING CREATIVITY AND INNOVATIVE THINKING AMONG STUDENTS FROM THEIR POINT OF VIEW IN LIWA AL-MUWAQAR DUE TO THE VARIABLE (YEARS OF EXPERIENCE)

Field	Category	Arithmetic Mean	Standard Deviation
Creative practices and innovative thinking	less than 5 years	**2.514**	**0.351**
	From 5 years - 10 years	**2.619**	**0.300**
	More than 10 years	**2.525**	**0.273**
	Total	**2.560**	**0.306**
Creative practices and innovative thinking	less than 5 years	**2.519**	**0.384**
	From 5 years - 10 years	**2.784**	**0.263**
	More than 10 years	**2.598**	**0.282**
	Total	**2.653**	**0.321**
Total	less than 5 years	**2.517**	**0.358**
	From 5 years - 10 years	**2.702**	**0.271**
	More than 10 years	**2.562**	**0.270**
	Total	**2.606**	**0.302**

Table (8) shows an apparent variance in the arithmetic averages and standard deviations of the role of the teacher in developing creativity and innovative thinking among students from their point of view in the site district according to the study variable (and years of experience), and to show the significance of the statistical differences between the arithmetic averages.

THE ONE-WAY ANALYSIS OF VARIANCE WAS USED ON THE TOOL AS PER TABLE (9), IT SHOWS:

Fields	Contrast source	sum of squares	degrees of freedom	mean squares	F value	Statistical significance
Creative practices and innovative thinking	**Between groups**	0.224	2	0.112	1.207	0.304
	Within groups	8.552	92	0.093		
	Total	8.777	94			
Creativity and innovative thinking requirements	**Between groups**	1.182	2	0.591	6.407	0.562
	within groups	8.488	92	0.092		
	Total	9.670	94			
Total	**Between groups**	0.605	2	0.302	3.480	0.135
	Within groups	7.996	92	0.087		
	Total	8.601	94			

IT IS EVIDENT FROM TABLE 9 THAT:

There are no statistically significant differences (α = 0.05) due to the effect of (years of experience) in the dimension, while there are in (creativity practices and innovative thinking, requirements of creativity and innovative thinking, and the total degree).

RECOMMENDATIONS

In light of the study findings, the researcher recommends the following:

- Increasing interest in providing educational activities that depend on the use of modern educational technologies
- Playing the roles of scientists among students and frequenting libraries to know the origins of inventions and the conditions that led to innovation and nurture creativity among scientists
- More attention to outstanding students, finding a common language, holding extracurricular meetings for some time, and encouraging them to continue their excellence and develop their spirit of innovative thinking and creativity.
- Paying attention to organizational methods in general, along with teachers, to encourage and motivate outstanding and creative students.
- Holding training courses for teachers on programs prepared in the field of creativity and innovation at the global level to exchange experiences.
- Finding suitable environments for the development of innovative thinking among school students to adopt extracurricular activities in which the student can unleash innovative thinking.

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