The Degree of Practicing Creative Thinking Skills by Basic School Teachers in Emirate of Sharjah from their Point of View

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Abstract—This study aimed at finding out the degree of practicing creative thinking skills by basic school teachers in Emirate of Sharjah, from their point of view. The descriptive – survey methodology was used in the study. The study sample consisted of (50) female teachers of the basic stage. A questionnaire was developed to collect the study data. It consisted of (22) items, distributed on five domains: (fluency, flexibility, sensitivity to problems, taking risk and enriching detail skills). Validity and reliability of the tool were assured. The findings showed that the degree of practicing creative thinking skills by basic female school teachers was high from their point of view. There were no statistically significant differences at ($\alpha \leq 0.05$) in the degree of practicing creative thinking skills by the basic female school teachers in Al – Sharjah Emirate attributed to academic qualification and experience variables. Among the recommendations of the study was: Supporting the effectiveness of practicing creative thinking skills of the basic female school teachers in Emirate of Sharjah.

Keywords—skills, creative thinking, Emirate of Sharjah, basic school teachers

1 Introduction

Thinking is a vital activity that characterizes the human being as a complex mental activity. It is a characteristic of the individual's awareness of the events and things going on around him in his life [1]. Thinking is a mental process that a person practices during his life in light of his efforts to solve the problems or situations he faces based on his experiences and motives. In view of the problems and challenges we face in all fields and disciplines, the need has become urgent that requires the use of thinking processes, especially creative thinking, to meet the challenges and the huge explosion of knowledge, and for more fruitful education to employ the higher mental capacities to creative thinking in a way that develops ideas, performance and abilities in line with the requirement so advanced education that develops ambition, confidence and skills, to the maximum event possible, while proving the ability to employ creative thinking

through communication, through the free expression of what is going on in the mind of the individual, with the discovery of things from several aspects in a creative way. As well as the individual's discovery of himself and others and their understanding and solving the gaps through his creative thinking that pushes him strongly towards the right and peaceful direction to reach a result. Creativity, and then creative thinking, is not limited to a specific category of individuals or to a field or specialty. This is because human beings are creative and distinguished in every society, and teachers who have creative thinking form the main basis for moving towards progress and prosperity. The role of the teacher is effective in diagnosing strengths and weaknesses, developing his style of creative thinking, and raising its level, because he is the person most capable of making change for the better and integrating his work and ideas within the framework of creative thinking through the appropriate use of the skills of this type of thinking.

2 Research problem

The use of creative thinking skills is very important in light of the rapid developments and tremendous achievements in order to improve performance and excellence in various areas of life, which will contribute to overcoming many obstacles facing the teacher while carrying out his educational tasks by unleashing thinking and creativity the best conditions for excellence and creativity. Since the skills of creative thinking empower teachers to deal and harmonize with all parties of the educational process at a high level of positivity, the short coming in using them will negatively affect the achievement of the goals of the educational process. Hence the problem of the study emerged by answering the following question:

What is the degree of practicing creative thinking skills by basic school teachers in the Emirate of Sharjah from their point of view?

2.1 Research aim and its questions

The aim of the current research is to find out the degree of practicing creative thinking skills by basic school teachers in Al – Sharjah Emirate in the United Arab Emirates (UAE) by answering the following two questions:

RQ1: What is the degree of practicing creative thinking skills by basic school teachers from their point of view?

RQ1: Are there any significant differences at ($\alpha \leq 0.05$) in the degree of practicing creative thinking skills by basic school teachers in the Emirate of Sharjah attributed to experience and academic qualification variables?

2.2 Research importance

– It is hoped that the results of this research will encourage the competent authorities in the Ministry of Education to prepare training programs that work to develop the creative thinking skills to teachers to reach excellence and success in the educational process.

– It is hoped that the results of this research will benefit educators in addressing some teaching problems in a creative manner.
– It is hoped from the results of this research the link between educational administration and educational psychology through the psychological variable represented in creative thinking.
– It is hoped that the results of this research provide a theoretical framework on the usefulness and importance of creative thinking skills for teachers, and it will be a starting point for research conducted at other levels of study.

2.3 Delimitations of the research

The current research was limited to basic school teachers with all their specializations in the Emirate of Sharjah in the United Arab Emirates for the current academic year 2020–2021.

2.4 Definition of terms

The research included a number of terms that were defined conceptually and operationally, as follows:

- Thinking: A complex concept consisting of three elements represented in complex cognitive processes, the highest of which is problem solving, and the least are understanding and application with knowledge of the content of the material, with the availability of preparedness and various personal factors, specially attitudes and tendencies [2, 3].
- Creative thinking: is a purposeful activity that results in new innovative ideas that are not familiar with theoretical or applied situations in one of the educational or life fields so that these solutions and products are characterized by modernity, novelty, and complexity [4–6].
- The operational definition of creative thinking skills: The ability of the teacher and the extent of his flexibility to interact with all those in charge of the educational process in its creative nature, which can be measured through the answers of the subjects of the research sample to the items of the questionnaire developed by the researcher and used in this research.

3 Theoretical literature

3.1 Creative thinking concept

Creativity (language) means the one who invents a thing: he created it, and found it [7]. Guilford defined creative thinking as it was referred to in [8] as the ability to find multiple and diverse solutions, i.e. the ability to develop ideas. While [9, 10] had defined creative thinking as producing a new and appropriate answer, product, or solution to an open – ended problem. As for [11], he defined creative thinking as the

ability to imagine with creative participation, both physically and mentally, in various activities in an unusually successful manner while solving problems with the use of tools from skilled people to develop new methods and ideas.

3.2 Levels of creative thinking

Taylor classified creative thinking into five levels, according to [12] mentioned, as follows:

1. Expressive creativity: Refers to free and independent expression to develop an idea regardless of its quality and without the need for skills or originality.
2. Productive creativity: refers to the product of the growth of the expressive level to lead to the production of complete works characterized by the restriction and control of free activity.
3. Inventive creativity: Refers to invention and discovery involving flexibility in perceiving new relationships between previously separate parts.
4. Innovative creativity: Requires a strong and high ability to abstract visualization of things to be improved by the creator.
5. Emergent creativity: It is the highest level of creativity that includes the conception of a new principle or access to a theory or law.

3.3 Factors affecting creative thinking

The main factors affecting creative thinking according to [13, 14] are as follows:

1. Intelligence: A condition for creativity in a certain percentage, but it is not sufficient to develop creativity.
2. Flexibility in thinking: It refers to the ability to move from one idea to another and look from multiple angles and directions.
3. Convergent and divergent thinking: It is closely related to the stored information and the form in which it is, with an awareness of the relationships between them.
4. Motivation: It is expressed by the integration of internal and external motives, which is consisted a stimulus for creative thinking that stems from the congruence of social and personal needs.
5. The family: Is the first influencer in shaping the child's personality elements and learning methods, through which the child learns to be traditional or creative, independent of his patterns of thinking and behavior.
6. The school: The school plays a major role in nurturing and developing creativity, whether by paying attention to depositing and finding appropriate educational programs or by providing incentives for creative students to motivate them to complete to achieve more creativity.

3.4 The importance of creative thinking

In [15, 16], they pointed out and explained the importance of creative thinking with the following points:

1. Develops the individual's ability to elicit new ideas and develops sensitivity to the problems of others.
2. Contributes to realization of the creative self, and the development of creative products with the development of talents and a better understanding of the world.
3. It leads to openness to new ideas, responding effectively to opportunities, challenges, responsibilities, managing risks, and adapting to changes.
4. Stimulates the tendency to cooperate with others to discover ideas.
5. Contributes to motivate schools to be a suitable environment for discovering talents and working to develop them through specialized programs.
6. Contributes to the development of learning methods and patterns to become more effective.
7. Contributes to the development of the individual's ability to deal with challenges and life situations in a more creative way.
8. It helps the individual to reach a successful solution to the problem in a creative way.

Advantages of creative thinking

Creative thinking, as [11] pointed out, has the following advantages:

1. The presence of high flexibility in the ideas that are presented.
2. There is a typical way of human thinking.
3. Find new ways to solve different problems.
4. Researching the details and getting into the depth of the problems to come up with drastic solutions.
5. Rapid response to emergency problems and to find quick solutions.

3.5 Creative thinking skills

Creative thinking skills are determined as follows:

1. Fluency skill: It means the speed or ease in issuing ideas or solutions to problems in accordance with the requirements of the real environment, so that the idea are organized, accurate and issued by knowledge. Fluency is measured by the ability to produce the largest possible number of solutions or ideas in a specific time. Fluency also represents the quantitative aspect of creativity [17, 18].
2. Flexibility skill: It means the ability to change the direction of thinking and generate various ideas to solve a problem or change a viewpoint towards the problem being treated and look at it from different angles.
3. Problem sensitivity skill: It means the ability to perceive weaknesses or shortcomings in a situation or something, which the average individual does not notice in most cases [19, 20].

4. The skill of enriching the details: It means the ability to add new and diverse details to an idea or to solve a problem that would help develop and enrich it [21, 22].
5. The skill of accepting risk: is intended to take the initiative in adopting new ideas and methods, and searching for solutions to them at the same time, when the response is capable of bearing the risk resulting from the work he is doing, and is ready to face the resulting responsibility [23, 24].

3.6 Stage of creative thinking

The creative thinking process consists of six stages [25]:

1. The stage of inspiration is the stage of generating large numbers of ideas that are characterized by being uninhibited, and characterized by spontaneity, experience, intuition and risk taking.
2. Illustration stage is a stage that focuses on the goals by asking the following main questions:
   – What am I trying to achieve here?
   – What am I trying to say?
   – What is the exact problem I am trying to solve?
   – What would I like the work done to look like?
   – How can I invest the ideas I have in my hands?
   – Where does this idea lead me and what can I make of it?
3. Extraction stage: is the stage of carefully examining the generated ideas and determining what is suitable for them to work, where the ideas are scrutinized from the inspiration stage, and in light of the results from the illustration stage, the best ideas are selected for further development or integrated into better ideas.
4. Nomination stage: This stage is carried out with sincere determination for the best ideas that have been selected. Here the real work is done with seriousness and persistent effort towards achieving the goal.
5. Evaluation stage: In this stage, the work is examined and previewed in search of strengths and weaknesses in order to invest and reinforce the strengths. This stage is required to return to the nomination stage to respond positively to the proposals for modification and improvement.
6. The stage of developing ideas: It is the stage of devotion to other work and leaving the current work, and thinking about it from time to time without losing sight of the mind.

3.7 Obstacles to creative thinking

Some obstacles that prevent the development of creative thinking:

– Family obstacles: They are the most important influences that affect the child's personality, including the low standard of living of the family, and the educational level of the parents, and their neglect of the interests and desires of their children [26].

– Personal obstacles: These obstacles are represented in personality weakness, lack of self – confidence, compliance with others, and lack of awareness of environmental stimuli.
– Emotional obstacles: that conflict with the freedom to explore and process ideas. Despite our ability to use concepts and ideas flexibility and fluently, these obstacles prevent us from conveying ideas to others in a manner that meets acceptance and satisfaction [27].
– School obstacles that include the teacher, his culture, teaching methods, attitudes and ideas toward the teaching profession, his relationship with students, the effectiveness of school administration, its policies and leadership styles, and its role in encouraging students to acquire creative thinking skills, and discouraging students to think and use their diverse mental abilities [19].

4 Related work

In [28], they conducted a study aimed at examining the effectiveness of a training program based on the self – questioning strategy in developing creative thinking skills (fluency, flexibility and originality) among tenth grade students in Azraq camp for Syrian refugees in Jordan. The study sample consisted of (40) female students distributed into two groups: experimental and control. The Torrance scale of creative thinking was used. The results of the study indicated that there were statistically significant differences between the performance means of the experimental and control groups, in favor of the experimental group. Also, [29] conducted a study aimed at investigating the effect of age and gender variables on creative abilities of seventh, eighth and ninth grades of the Sahab pioneering center. The study sample consisted of (60) male and female students. The Torrance test for verbal and formal creative thinking was applied. The results showed that there were no statistically significant differences according to the gender variable at ($\alpha \leq 0.05$) on the dimensions of fluency, flexibility and originality. There were also no statistically significant differences at ($\alpha \leq 0.05$) due to the age variable on the students' achievement in the verbal and formal tests. Moreover, [30] conducted a study aimed at developing an educational unit from the eighth grade geography book in light of the habits of mind and measuring its effect on the creative thinking of female students in Jordan. The sample of the study consisted of (83) female students distributed into two groups: experimental and control. The findings of the study indicated that there were statistically significant differences between the performance means of the experimental and control groups, in favor of the experimental group. The results also indicated a weakness in the activities related to creative thinking skills. Likewise, the aim of the study of [31] was to search for the creative thinking skills of the tenth grade students in mathematics. The sample of the study consisted of (35) students. The quantitative and qualitative methodologies were used in this study. The findings showed that the students had different skills in mathematics and creative thinking. Furthermore, Adam and Mujib (2020) carried out a study aimed at improving students' critical and creative thinking skills, through a multivariate analysis of the experiments and gender model. The study sample consisted of (328) participants from five different universities in Indonesia. The multi – skills lab

activity model and the high – level thinking lab were used, with gender as an influencing factor in the successful learning process. A quasi – experimental methodology was used. The result showed that the experience affected the learning outcomes more than the gender variable. The results indicated that the multi – skills lab activity model improves students' critical and creative thinking skills better than the high – level thinking lab. Also, [32, 33] conducted a study aimed at determining the effect of the generative learning model for the skills of solving mathematical problems, and the skills of mathematical creative thinking of fifth grade students. The study sample consisted of (75) students. Data were collected using essay tests to solve mathematical problems and the skills of mathematical creative thinking. Data were analyzed using the natural state test and harmonization test as well as assumptions using SPSS. The results showed that there was an effect of the generative learning model on mathematical problems. While [34] carried out a study aimed at testing the effectiveness of learning methods on creative thinking skills and finding out the interaction between multimedia and learning styles in influencing creative thinking skills. The total sample consisted of (74) male and female students in the tenth grade, who were divided into two groups, experimental and control. The quasi – experimental methodology was used. The data on creative thinking skills were tested using (N – Gain). The learning methods were quantitatively analyzed to find out the effectiveness of the research variables. One-way Analysis of Variance (ANOVA) was used in manipulating data. The results showed that interactive multimedia had an effect on students' creative thinking skills. The learning styles and interactions of the two independent variables did not affect the creative thinking skills of the students.

5 Methodology

The survey descriptive methodology was used as the appropriate methodology for this research. The questionnaire was used as a means of data collection.

5.1 Research population

The research population consisted of all female basic school teachers working in private schools in Emirate of Sharjah, for the current academic year (2020 / 2021).

5.2 Research sample

A random sample of basic female school teachers in the Emirate of Sharjah was selected using the simple random sampling method. Their number reached (50) female teachers, representing the basic female school teachers in the Emirate of Sharjah.

5.3 Research tool (Creative thinking skills questionnaire)

The tool of the research was developed by reviewing the theoretical literature related to the subject of the research, and related previous studies such as: [35, 36]. The questionnaire, in its initial form, consisted of (22) items distributed into five domains.

5.4 Validity of the research tool

The validity of the research tool was confirmed using face validity, by presenting the research tool in its initial form, to a number of arbitrators in educational, psychological and administrative sciences, from professors working in UAE universities. They were asked to express their opinion regarding the items of the questionnaire in terms of clarity and accuracy of its formulation, and whether the items need to be modified and the proposed amendment. An approval rate of 80% or more of the arbitrators was for the item for adoption in the questionnaire. The arbitrators' notes regarding the linguistic formulation of some items were also taken into consideration.

5.5 Reliability of the research tool

To verify the reliability of the research tool, Cronbach Alpha equation was used to find out the internal consistency of the tool, as well as using the half split method. They were applied to a pilot sample from the research population and from outside the research sample. It consisted of (10) female school teachers. The reliability coefficient values, using Cronbach – Alpha equation ranged between (0.90–0.97). As for the reliability coefficients by the split – half method, they ranged between (0.76–0.95). These values are acceptable in this type of research. Table 1 shows that.

Table 1. The reliability coefficients of the research tool using Cronbach Alpha equation and the split half method

No.	Skills	Reliability Coefficient Using Cronbach – Alpha	Reliability Coefficient Using Split – Half Method
1	Fluency	0.91	0.72
2	Flexibility	0.90	0.83
3	Sensitivity to problems	0.97	0.93
4	Enrichment with details	0.91	0.95
5	Accept the risk	0.95	0.94
Total		–	**0.95**

6 Results and their discussion

6.1 Firsts: Results related to the answer to the first question: What is the degree of practicing creative thinking skills by basic school teachers from their point of view?

To answer this question, means and standard deviations were calculated. The rank and degree of practice were determined, for the domains of practice of the teachers of the basic stage of creative thinking skills in the Emirate of Sharjah from their point of view. Table 2 shows that.

Table 2. Means, standard deviations, ranks and the degree of practicing creative thinking skills by basic stage teachers in the Emirate of Sharjah from their point of view in descending order

No.	Skills	Mean	Standard Deviation	Rank	Degree of Practice
4	Enrichment with details	3.93	0.72	1	High
2	Flexibility	3.88	0.63	2	High
3	Sensitivity to problems	3.82	0.70	3	High
1	Fluency	3.75	0.60	4	High
5	Accept the risk	3.61	0.90	5	Medium
Total score		**3.79**	**0.61**	–	**High**

It is noticed from Table 2 that the mean of the degree to which basic school teachers in the Emirate of Sharjah practice creative thinking skills from their point of view was high. Its mean was (3.79) and a standard deviation of (0.61). The skill of enrichment in details ranked first with a mean of (3.93) and a standard deviation of (0.72) and a high degree. In the last rank came "Accept the risk" skill, with a mean of (3.61) and a standard deviation of (0.90) and a medium degree. This result may be attributed to the fact that teachers have adapted to technological developments, communication technology, diversity in methods of dealing with others, presentation of the study material and practice of creative thinking to a high degree. As for the items of each skill, the results were as follows:

1. Enrichment with details skill

Means, standard deviations, determination of ranks and the degree of practicing "Enrichment with details" items by basic stage teachers in the Emirate of Sharjah from their point of view were found. Table 3 shows that.

Table 3. Means, standard deviations, ranks and the degree of practicing "Enrichment with details" items by basic stage teachers in the Emirate of Sharjah from their point of view in descending order

No.	Items	Mean	Standard Deviation	Rank	Degree of Practice
18	Expand and enrich the main and secondary ideas	3.96	0.77	1	High
19	Presenting multiple evidence to support the opinion	3.84	0.82	2	High
Total score		**3.93**	**0.72**	–	**High**

Table 3 shows that the degree of practicing the skill of "Enriching with details" by basic school teachers in the Emirate of Sharjah, from their point of view was high. The mean was (3.93) with a standard deviation of (0.72). The two items of this domain came to a high degree. Item (18) came in the first rank which states that "Expand and enrich the main and secondary ideas". Its mean was (3.96) and a standard deviation of (0.77). While item (19) which stated "Presenting multiple evidence to support the opinion" came in the second and last rank. Its mean was (3.84) and a standard deviation of (0.82).

This high result may be attributed to the fact that basic school teachers pay attention to the details. They clarify and explain these details to student, as well providing relevant knowledge and information to facilitate the students' understanding of the details related to the subject matter. This result may be due to teachers seeking to expand their students' perceptions with information that develops their creativity through their use of various teaching methods.

2. Flexibility skill

Means, standard deviations, determination of ranks and the degree of practicing "flexibility" items by basic school teachers in Emirate of Sharjah from their point of view were found, as shown in Table 4.

Table 4. Means, standard deviations, ranks and the degree of practicing "flexibility" items by basic school teachers in the Emirate of Sharjah from their point of view in descending order

No.	Items	Mean	Standard Deviation	Rank	Degree of Practice
11	The ability to see things from different angles	4.02	0.87	1	High
13	Use a variety of methods to express an idea	4.00	0.97	2	High
9	Flexibility to change a situation when he is convinced that it is incorrect	3.91	0.87	3	High
10	Flexibility in work performance	3.80	0.87	4	High
12	Respecting the views of teachers	3.67	0.80	5	Medium
Total score		**3.88**	**0.63**	**–**	**High**

Table 4 showed that the degree of practicing the skill of "flexibility" by basic school teachers in the Emirate of Sharjah from their point of view was high. Its mean was (3.88) and a standard deviation of (0.63). The means ranged between (4.02–3.67). In the first rank came item (11) which states "the ability to see things from different angles". Its mean was (4.02) with a standard deviation of (0.87), and at a high degree. While item (12) that states "Respecting the views of teachers" came in the last rank with a mean (3.67) and a standard deviation of (0.80). This result may be attributed to the fact that teachers have the ability to look at the situations they face during their school day from different angles to form a clear vision that enables them to make a rational decision about those situations. This result may be due to the fact that teachers use different methods when they want to express ideas related to the topic of the lesson to facilitate students' awareness of those ideas of concepts. This result may be attributed to teachers respecting the views of other teachers, when they present ideas and views that seem different, which may lead to the presentation of many ideas, some of which may be useful in developing the educational process.

3. Sensitivity to problems

Means, standard deviations, determination of ranks and degree of practicing the items of "sensitivity to problems" skill by basic school teachers in the Emirate of Sharjah from their point of view were calculated. Table 5 shows that.

Table 5. Means, standard deviations, ranks and the degree of practicing "sensitivity to problems" by basic school teachers in al – Sharjah Emirate from their point of view in descending order

No.	Items	Mean	Standard Deviation	Rank	Degree of Practice
16	Detailed insight into problems	3.88	0.63	1	High
17	Demonstrate enthusiasm in dealing with problems	3.84	0.65	2	High
14	Have patience to solve complex problems	3.80	0.69	3	High
15	Knowing the shortcomings of the work	3.77	0.80	4	High
Total score		**3.82**	**0.70**	**–**	**High**

Table 5 shows that the degree of practicing the "sensitivity to problems" domain by basic school teachers in the Emirate of Sharjah from their point of view was high. The mean was (3.82) with a standard deviation of (0.70). All the items of this skill came in the high degree. The means ranged between (3.88 – 3.77). Item (16) came in the first rank, which states "Detailed insight into problems". Its mean was (3.88) and a standard deviation of (0.63). Item (15) that states "Knowing the shortcomings of the work" came in the last rank. Its mean was (3.77) and a standard deviation of (0.80). This result may be attributed to the fact that teachers have a high sense and a comprehensive awareness of the problems they face when performing their educational work. They also have an accurate perception of the problems and in detail to take note of them and work to address them as soon as possible. This high result may be due to the teachers having enough enthusiasm that motivates them to deal with problems in a positive way that leads to solve or overcome them. As well as, the teachers being patient and knowing the weaknesses related to the work they practice.

4. Fluency

Means and standard deviations were calculated. Ranks and degrees were determined for practicing the fluency skill items by basic stage teachers in the Emirate of Sharjah, from their point of view. Table 6 shows that.

Table 6. Means, standard deviations, ranks and the degree of practicing "Fluency" skill by basic school teachers in the Emirate of Sharjah from their point of view in descending order

No.	Items	Mean	Standard Deviation	Rank	Degree of Practice
3	Excellence in discussion with high skill, to convince others of new ideas	3.91	0.67	1	High
8	Performs his job in a sophisticated and developed style	3.89	0.71	2	High
7	Constantly looking for new ideas	3.80	0.84	3	High
5	Talk about some topics broadly and with great confidence	3.78	0.90	4	High
6	Monitoring opportunities to develop them, in order to invest them in work	3.76	0.80	5	High

(Continued)

Table 6. Means, standard deviations, ranks and the degree of practicing "Fluency" skill by basic school teachers in the Emirate of Sharjah from their point of view in descending order *(Continued)*

No.	Items	Mean	Standard Deviation	Rank	Degree of Practice
2	Encouraging the spirit of teamwork to develop students' style	3.71	0.76	6	High
1	Providing teachers with new ideas to improve their performance	3.67	0.83	7	Medium
4	Accepts constructive criticism to develop his style	3.64	0.86	8	Medium
Total score		**3.75**	**0.60**	**–**	**High**

It is noted from Table 6 that the degree of practicing the items of "Fluency" skill by basic stage teachers in Al – Sharjah Emirate from their point of view was high. Its mean was (3.75) and a standard deviation of (0.60). The items of this domain came in the high and medium degrees. The means ranged between (3.91–3.64). Item (3) which states "Excellence in discussion with high skill to convince others of new ideas", came in the first rank. Its mean was (3.91) and a standard deviation of (0.67) with a high degree. While item (4) that states "Accepts constructive criticism to develop his style" came in the last rank. The mean was (3.64) and a standard deviation of (0.86) with a medium degree. This high result may be attributed to the fact that basic stage teachers in the Emirate of Sharjah are highly skilled in terms of expression and discussion with others to convince them of the new ideas they present, and they have verbal fluency that enables them to employ their communication with other in an effective manner. This helps them achieve their goals effectively, because they possess accurate knowledge. This result may be due to teachers' acceptance of constructive criticism offered by others, in order to develop their own style of dealing and expressing the subjects they are assigned to teach.

5. Accept the risk skill

Means and standard deviation were calculated. Ranks and degrees were determined for practicing "accept the risk" skill items by basic stage teachers in Al – Sharjah Emirate, from their point of view. Table 7 illustrates that.

Table 7. Means, standard deviations, ranks and the degree of practicing "accept the risk" skill by basic stage teachers in Al – Sharjah Emirate from their point of view in descending order

No.	Items	Mean	Standard Deviation	Rank	Degree of Practice
20	The ability to adjust his style to meet an emergency situation	3.85	0.61	1	High
22	Adopting ideas and alternatives to confront the problem	3.60	0.94	2	High
21	Adopting the creative ideas presented by teachers	3.42	0.92	3	Medium
Total score		**3.61**	**0.90**	**–**	**Medium**

Table 7 shows that the degree of practicing the items of "accept the risk" skill by basic stage teachers in the Emirate of Sharjah from their point of view was medium. The mean was (3.61) and a standard deviation of (0.90). The items of this domain ranged between (3.85 – 3.42). Item (20) that states "The ability to adjust his style to meet an emergency situation" came in the first rank. Its mean was (3.85) and a standard deviation of (0.61) with a high degree. While item (21) which states "Adopting the creative ideas presented by teachers" came in the last rank. The mean was (3.42) and a standard deviation of (0.92), with a medium degree. This result may be due to the fact that basic stage teachers in the Emirate of Sharjah have the ability to adapt their style to the nature of the situation they are facing, especially the emergency situation, which is usually surprising and requires a quick and appropriate solution. It also needs deep thinking about that situation, and familiarity with all its aspects, in order to be able property and rationally handle the situation that the teacher is going through, when performing the tasks assigned to him. This result may be attributed to the teacher's adoption of creative ideas, suggestions and alternatives that teachers put forward to face some problems during the school day. This may help the teacher and the school administration to overcome many of the daily problems within the school.

Second: Are there any significant differences at ($\alpha \leq 0.05$) in the degree of practicing creative thinking skills by basic school teachers in the Emirate of Sharjah attributed to experience and academic qualification variables?

This question was answered in light of its two variables (experience and academic qualification), as follows:

1. Experience variable

Means and standard deviations of creative thinking skills were calculated according to the variable of experience. Table 8 shows that.

Table 8. Means and standard deviations of the degree of practicing creative thinking skills by basic stage teachers in the Emirate of Sharjah according to the experience variable

No.	Skills	Level of Experience	Sample Size	Mean	Standard Deviation
1	Fluency	Less than 5 years	25	3.88	0.81
		From 5 – less than 10 years	10	3.90	0.60
		10 years and above	15	3.85	0.61
		Total	50	3.88	0.63
2	Flexibility	Less than 5 years	25	3.85	0.60
		From 5 – less than 10 years	10	3.73	0.52
		10 years and above	15	3.68	0.68
		Total	50	3.78	0.60
3	Sensitivity to problems	Less than 5 years	25	3.86	0.55
		From 5 – less than 10 years	10	3.98	0.74
		10 years and above	15	3.67	0.88
		Total	50	3.82	0.69

(Continued)

Table 8. Means and standard deviations of the degree of practicing creative thinking skills by basic stage teachers in the Emirate of Sharjah according to the experience variable *(Continued)*

No.	Skills	Level of Experience	Sample Size	Mean	Standard Deviation
4	Enrichment with details	Less than 5 years	25	3.82	0.71
		From 5 – less than 10 years	10	3.95	0.71
		10 years and above	15	3.84	0.65
		Total	50	3.85	0.68
5	Accept the risk	Less than 5 years	25	3.70	0.74
		From 5 – less than 10 years	10	3.45	1.50
		10 years and above	15	3.23	1.31
		Total	50	3.51	0.93
	Total score	**Less than 5 years**	**25**	**3.88**	**0.57**
		From 5 – less than 10 years	**10**	**3.88**	**0.66**
		10 years and above	**15**	**3.71**	**0.68**
		Total	**50**	**3.79**	**0.61**

It is noticed from Table 8 that there were apparent differences between the values of the means to the degree of practicing creative thinking skills by basic stage teachers in the Emirate of Sharjah, from their point of view, according to the variable of teacher experience. Teachers of the two categories of experience (Less than five years, and from five to less than ten years) obtained the highest mean of (3.88). To determine if the differences were statistically significant at ($\alpha \leq 0.05$), One – way analysis of variance (ANOVA) was applied. The results were as shown in Table 9.

Table 9. One – way ANOVA to find out the significance of the differences in the degree of practicing creative thinking skills by basic stage teachers in the Emirate of Sharjah according to the teachers' experience variable

Source of Variation		Sum of Squares	Df	Mean Squares	F – Value	Level of Significance
Fluency skill	Between groups	0.281	2	0.141	0.378	0.688
	Within groups	5.633	47	0.372		
	Total	5.914	49			
Flexibility skill	Between groups	0.026	2	0.013	0.031	0.969
	Within groups	7.317	47	0.412		
	Total	7.347	49			
Sensitivity to problems skill	Between groups	0.1010	2	0.051	0.106	0.900
	Within groups	0.0692	47	0.478		
	Total	0.1702	49			

(Continued)

Table 9. One – way ANOVA to find out the significance of the differences in the degree of practicing creative thinking skills by basic stage teachers in the Emirate of Sharjah according to the teachers' experience variable *(Continued)*

Source of Variation		Sum of Squares	Df	Mean Squares	F – Value	Level of Significance
Enrichment with details skill	Between groups	0.560	2	0.280	0.573	0.568
	Within groups	0.5412	47	0.489		
	Total	0.1012	49			
Accept the risk	Between groups	1.930	2	0.965	1.726	0.182
	Within groups	16.278	47	0.559		
	Total		49			
Total score	Between groups	0.142	2	0.071	0.184	0.833
	Within groups	6.226	47	0.386		
	Total		49			

The results in Table 9 showed that there were no statistically significant differences at ($\alpha \leq 0.05$) in the degree to which the basic stage teachers in the Emirate of Sharjah practice creative thinking skills according to the variable of teacher experience. The F – value for the total score was (0.184) at (0.833) level of significance. It is inferred from this result that the teacher's experience variable does not affect the responses of teachers in the Emirate of Sharjah, when they practice creative thinking skills. This result may indicate the agreement of these teachers to describe their practice of creative thinking skills, regardless of the length of their experience, whether long or short. It seems that these five skills are clear to teachers, who are fully aware of them despite their different experiences.

2. Academic qualification variable

Means and standard deviation were calculated to the degree of practicing creative thinking skills by basic stage teachers in the Emirate of Sharjah. The (t-test) for two independent samples was also used to find out the significance of the differences among teachers according to their academic qualification. Table 10 clarifies that.

Table 10. Means, and standard deviations of the degree of practicing creative thinking skills by basic stage teachers in Al – Sharjah Emirate and t-test for two independent sample according to teachers' academic qualification

No	Skills	Levels of Academic Qualification	Sample Size	Mean	S.D.	T-value	Level of Significance
1	Fluency	Bachelor	43	3.84	0.61	0.341	0.186
		Master	07	3.54	0.53		
2	Flexibility	Bachelor	43	3.94	0.57	0.301	0.20
		Master	07	3.64	0.80		
3	Sensitivity to problems	Bachelor	43	3.92	0.64	0.441	0.157
		Master	07	3.56	0.77		
4	Enrichment with details	Bachelor	43	3.85	0.70	0.64	0.525
		Master	07	3.69	0.68		
5	Accept the risk	Bachelor	43	3.53	0.93	0.30	0.765
		Master	07	3.42	0.99		
	Total score	**Bachelor**	**43**	**3.85**	**0.59**	**0.241**	**0.221**
		Master	**07**	**3.57**	**0.68**		

The results in Table 10 showed that there were no statistically significant differences at ($\alpha \leq 0.05$) in the degree of practicing creative thinking skills by basic stage teachers in the Emirate of Sharjah, according to teachers' academic qualification, for the total score and all domains of skills. The t – value for the total score was (0.241) at (0.221) level of significance. This result may be attributed to the fact that the educational qualification variable for teachers is not influential in making a statistically significant difference according to the level of qualification. This may indicate that teachers agree in describing their use of creative thinking skills despite their different academic qualifications (bachelor or master).

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