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Achievement Motivation and its Relation to the Role of Extra – Curricular Activities in the Development of Creative Thinking Skills Through the Perspective of Students

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ABSTRACT
The study aimed at measuring the level of "achievement motivation and its relation to the role of extra – curricular activities in the development of creative thinking skills through the perspective of students at the governmental schools in Al – Karak City in the Hashemite Kingdom of Jordan". The results showed statistically significant differences due to the impact of gender in all domains except for the domain of success emitting value and the difference came in favor of the females, the non – existence of statistically significant differences due to the effect of educational stage in all domains except for the domain of the motive to success where the differences came in favor of the ninth grade, and the absence of statistically significant differences due to the interaction between gender and educational stage in all domains.

KEYWORDS
achievement motivation, extra – curricular activities in the development of creative thinking skills, school students

Introduction

Studying the various motivations helps the individual in understanding his own self and others. They introduce us to the motives that motivate individuals to perform different behaviors in different situations and circumstances. They can be identified as the available possibilities in the surrounding environment of an individual used to stimulate more of his motivations toward a specific behavior and to perform a specific activity or activities in a way that fulfil his desire and needs.

They enable us to explain others behavior in certain situations and help us predict human's behavior in a given situation and know the individual's motivations. They can be used to direct one's behavior in a specific direction; the teacher's motivation to work appears in his conduct with his students in the class management and his impact on the students, as for the teacher's impact is not limited to the subject he teaches rather than it is related to his

tendencies, values, habits and behavior which quickly are transferred to his students for he is an example and a role model to be followed. The teacher is the students' ideal in morals, achievements, behavior …etc. A teacher might be excellent in the subject related to his specialty but might lack the ability to explain this subject to the students in an understandable comprehensive way, therefor; the teacher of gifted students must enjoy a motivation, the scientific achievement motivation, to help students through the educational situations (Al-wadi, 2012).

The extra- curricular activities contribute to the educational and psychological process and to the formation of the student's needed habits, skills and methods. The student gains educational, physical and healthy benefits out of them. They help the development of the student's tendencies and talents. They are considered a strong source of motivation for education within the classroom. The extra-curricular activities emphasize the real role of the teacher, where the teacher trains his students on how to teach themselves and guide them to achieve the concept of self-education. Extra-curricular activities contribute to the physical growth of the student through engaging him in sport activities endorsed by the Islamic Law (Sharia'h) and else. They also give the student the opportunity to achieve and show his hidden talents and develop many essential skills. Extra-curricular activities develop many of the student's basic skills in his educational and practical life such as writing reports and participating in the cultural competitions carried out among schools, as well as, they support the student's experiences by consolidating and authenticating what he acquires within the class, moreover; They help in exploring several good new educational experiences. Courses obtained through the student's engagement in the extra-curricular activities provide the reinforcement of the religious, social and professional awareness of the student (Al-Munief, 1995).

Thus, it is clear that all types of school activities contribute significantly to the development of students' personalities and their moral, social, psychological, physical and mental education, which prepare them for future life situations and have a significant impact on the education of learners that exceeds education in classrooms (Arafa, 2010).

Thinking in all its types is the core of attention of educational institutions. Creative thinking currently receives great attention from planners and experts for its development in order to benefit from it. Developed countries seek developing the students' creative skills through all the available means (Duwaidi, 2008).

Creative thinking is "a complex purposeful mental activity driven by a strong desire to look for solutions or original results that were not known before. Creative thinking is characterized by comprehensiveness and complexity as it implies interconnected emotional and moral elements forming a unique mental state (Jirwan, 2004).

In this regard, Duwaidi (2008) stated that there is concordance among many educators on the importance of motivating the students' creativity, its development and its training in different methods. In United States there are more than thirty methods for creativity training, in Japan there are more than a hundred; including the American methods, aiming at qualifying the minds to be thoughtful, creative, and able to solve the varied and complicated problems of life in unconventional ways.

Problem of the study:

Achievement motivation is one of the important aspects in the humanitarian motivation system. It has emerged in recent years as one of the distinguished features in research and study in the field of social psychology and personal psychology, as well as the educational achievement in the field of educational psychology; due to its significant importance in understanding several educational problems. In general, achievement motivation has gained a greater attention compared with the other social motivations (Al-Safi, 2001).

Achievement motivation is an essential component in the individual pursuance toward self- actualization and affirmation. An individual feels self- actualization through what he accomplishes, the goals he realizes, the lifestyle he seeks for, and the higher ranks he aspires for his humanitarian existence (Khalifah, 2002).

Some educators see a positive relation between participation in extra-curricular activities and educational achievement and excellence, achievement at work, self and social development, and the realization of different educational goals (Holland, 1987). Several studies and literature in the field of extra-curricular activities indicate the important role played by these activities; whether on the student's personal level or the general level of the society, as they are designed to prevent students from deviating away from the correct conduct. They participate as well in revealing the students' abilities and their investment in the fields that would benefit them and the society in the future on the one hand, and in the development of their creativity and innovation driven in the useful domains on the other hand (Murshid & Ahmad, 2010). The researcher tries to study this topic through answering the following questions:

Questions of the study:

1. What is the level of achievement motivation among students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan?
2. What is the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan?
3. Are there statistically significant differences at ($\alpha \leq 0.5$) in the level of achievement motivation in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan attributed to the variables of gender and the educational stage and the interaction between the two?
4. Are there statistically significant differences at ($\alpha \leq 0.5$) in the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan attributed to the variables of gender and the educational stage and the interaction between the two?
5. Is there a statistically significant correlation at ($\alpha \leq 0.5$) between the achievement motivation and the role of extra-curricular activities in the development of creative thinking skills through the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan?

Importance of the study:

It is hoped that the results reached by this study will be beneficial for personnel responsible for planning and preparing programs concerned with the students' achievement motivation in the departments of education in order to develop appropriate programs, as for it was noted that the theoretical aspects were given more attention than the practical ones along with overlooking the students' needs. This study will provide an important and essential information base for decision-makers and officials in the Ministry of Education and other educational institutions institutions about the relationship between the achievement motivation of students in the governmental schools in Al-Karak City in the Hashemite . Kingdom of Jordan. The results of this study will be reflected positively on the quality of the provided programs and the increment of their efficiency after defining and overcoming their weaknesses in order to benefit from these programs. The study will add tools with psychometric characteristics that can be used in researches to enrich the Arab library through a theoretical framework on the students' achievement motivation. The Importance lies in providing specialists with the theoretical frame on the effectiveness of extra-curricular activities on students in general and on the gifted ones in particular. In addition, the theoretical importance lies in drawing the attention of teachers and educators towards the importance of caring for the extra-curricular activities and their role in the development of creative thinking skills to upgrade them inside and outside the classroom. The practical importance lies in educating schools principals, activities supervisors and teachers about the concept of extra-curricular activities and their importance to increase the attention toward the educational institutions. Moreover, the practical importance lies in driving the attention of decision-makers toward the importance of minding the extra-curricular activities, providing the practical needed means for this purpose, and providing the appropriate potentials and environment to practice these extra-curricular activities.

Procedural definitions and concepts:

Achievement motivation: The individual's readiness to bear responsibility and seek excellence to achieve specific goals, the persistence to overcome difficulties and problems, and the ability to sense time and planning for the future (Khalifah, 2002).

The procedural definition of achievement motivation: The total grades a talented student achieves for his performance according to the achievement motivation measurement applied in the study.

Extra-curricular activities: "The activities that students perform outside the classroom to achieve educational goals that mostly cannot be perceived through the classroom activities" (Al-Fatlawi, 2003, p.94).

The procedural definition of extra-curricular activities: The intellectual or behavioral activities that seek the development of the student's personality and creative ability. They are measured through the grade that the student achieves when answering the questions of the study prepared for this purpose; the grades vary from (1-5).

Creative thinking: (Torrance, 1966) identified it as: "the process that helps the individual to better sense the problems; shortages; changes in the field of information and knowledge; harmony imbalance; difficulties definition; solutions pursuance; prediction; formation of hypotheses; testing, reforming or amending them to conclude new outputs that a person can transfer to others".

The procedural definition of creative thinking: The grade that the student achieves through answering the questionnaire prepared for the purposes of this study.

School students: The students enrolled in the governmental schools in the Ministry of Education in Al-Karak City at Al-Shahabiyeh School (males, females).

Limits of the study:

- Time limits: The study was carried out during the second semester of the academic year 2015/2016.

- Place limits: The study was conducted in Al-Karak governorate in the Hashemite Kingdom of Jordan.

- **Human limits**: The study was applied over the students of governmental schools in Al-Karak governorate in the Hashemite Kingdom of Jordan.

- The design of the study results was determined by the psychometric characteristics of the study tool and the applied methodology.

The theoretical framework and previous studies:

First: The theoretical framework:

This chapter reviews the theoretical literature related to the subject of the study; the achievement motivation and the role of extra-curricular activities in the development of creative thinking skills, in order to form an appropriate theoretical background about the content of the study. It also includes a review of previous studies that handled the subject of the study aiming at making use of their procedural methodologies and to compare their results with the results of the current study.

Motivation is highly regarded by educators and psychologists as it includes systems and patterns that determine the nature of human behavior. Each behavior implies specific motivations. Motivation as a concept refers to what motivates a person to do a specific behavior and driving this behavior to a specific direction. Motivation also indicates an internal sentimental state of an individual that provokes a behavior, directs it and sustains it. This motivation cannot be noticed unless through its influence (Kawafha, 2004).

Some researchers in the field of education have distinguished between (Motive) and the concept of (Motivation); considering motive as the individual's willingness to make an effort or to pursue a particular goal, whereas motivation is when this willingness comes into force and actual application. Despite this attempt of distinguishing between the two terms, there is no justification for it, as the two terms are synonymous and both reflect the basic features of motivated behavior. The word (Motivation) has a Latin root (Movere) which means to push or to move in psychology. Studying motivation includes identifying the causes or the factors that define an act or a behavior (Khalifah, 2000).

Life has developed and different new educational theories have emerged; behavioral and cognitive theories, in order to keep pace with the human civilization. They exceeded the concept of old curriculums that are limited to the plan of school subjects that the school is keen to implement so the students pass in their exams. They include all the activities and experiences planed by the school to help the student develop and reach the best of his abilities (Balqis, 1996).

The school provides a variety of programs and activities that contribute in the formation of important habits, skills, values and thinking methods necessary to pursue education and to participate in it effectively, therefor; several studies that have been conducted to reveal the relationship between students' participation in school activity programs and their academic level proved that students who participate in those programs have the ability for academic achievement, they are positive with their teachers and colleges, enjoy the spirit of leadership, they are more satisfied with social life and are more able to establish social relationships with their colleagues and teachers as well as they tend more to participation and creativity (Munief, 1994).

Achievement motivation:

(McClelland, 1998) indicates that achievement motivation is a virtual composition that means the feeling connected with performance assessment in terms of competition to achieve the standards of excellence. This feeling reflects two major components: the desire to succeed and the fear of failure during the individual's pursuance to do his best and strive to succeed and excel.

(Ball, 1977) adds that high achievement motivation increases the individuals' ability to control themselves and to work hard to solve the problem. It allows them to develop coherent plans to be followed and pursued vigorously to reach a solution.

Individuals with high achievement motivation are characterized by the ability to set reasonable and realistic future conception regarding the problems they face which are considered of medium difficulty and solvable (Bu Hamameh, Abd Al-Raheem & Al-Shahumi, 2006).

The concept of achievement motivation:

The concepts of achievement motivation have varied and many researchers explored the subject of motivation. As a result several definitions were concluded, among which:

The use of the term of achievement motivation in psychology is historically attributed to Alfred Adler who pointed out that the need for achievement is a compensatory motive derived from childhood experiences, and Kurt Levin who introduced this term in the light of handling the concept of ambition, then Murray used the term of achievement motivation. Despite these early attempts, the credit goes to Murray who was the first to introduce the concept of the need for achievement accurately as an important component of the personality (Khalifa, 2000).

Murray has defined the achievement motivation, referred to in (Al-Khawli, 2002), as the individual's ability to achieve something difficult; to control or organize material things, people or ideas; to do so as fast as possible; to assure a feasible degree of independency; to

overcome difficulties and to reach high levels; to be superior to his own self; to compete with others and to renounce them; or to increase ones self-esteem through succeeding in practicing some talents.

The dimensions of achievement motivation:

Al-Tatour (2011) pointed out the dimensions of achievement, which are:

1. **The dimension of perseverance**: It is the abilities that help the student to master what he is asked for in the best way possible. It is measured by the grade the students score through answering the items of this dimensions.
2. **The dimension of self-confidence:** It is the abilities that the student enjoys which reveal the level of his self-confidence.
3. **The dimension of time importance:** It is the abilities that determine the importance of time for the student, how he uses it and how he manages it properly.
4. **The dimension of competition:** It is the group of skills that the student has to excel among his colleges and to achieve what he aspires.
5. **The dimension of the desire for work perfection and enjoyment:** It is the group of motives that motivate the student to master the work assigned to him and to feel the enjoyment while doing it.

Extra-curricular activities and their role in the development of creative thinking skills:

Life has developed and different new educational theories have emerged; behavioral and cognitive theories, in order to keep pace with the human civilization. They exceeded the concept of old curriculums that are limited to the plan of school subjects that the school is keen to implement so the students pass in their exams. They include all the activities and experiences planed by the school to help the student develop and reach the best of his abilities (Balqis, 1996).

The school provides a variety of programs and activities that contribute in the formation of important habits, skills, values and thinking methods necessary to pursue education and to participate in it effectively, therefor; several studies that have been conducted to reveal the relationship between students' participation in school activity programs and their academic level proved that students who participate in such programs have the ability for academic achievement, they are positive with their teachers and colleges, enjoy the spirit of leadership, they are more satisfied with social life and are more able to establish social relationships with their colleagues and teachers as well as they tend more to participation and creativity (Munief, 1994).

On the other hand, interest of psychologists and educators has increased in creativity and the creative, especially in the last quarter of the twentieth century, because it is related to the progress and development of nations. Scientific progress cannot be achieved without the development of human creativity. The creative and innovators have the burden of developing societies. Creativity is one of the Intentional and purposeful thinking methods, in which the individual seeks to discover new relationships; to reach new solutions to his problems; to invent or create new approaches, new ways or new devices; or to produce beautiful artistic images (Isawi, 1994: 144).

The concept of extra-curricular activities:

Definitions of educational activities brought by authors and researchers have varied.

This variation is attributed to the fact of the successive emergence of new educational activities with different forms, which necessitated updating the definition of educational activities constantly. Educational activities have been defined as the educational practices carried out by students inside and outside the school environment as part of the intended teaching and learning process under the supervision of the teacher, aiming at acquiring the needed experiences and skills for the educational process in the cognitive, psycho-motor, and socio-emotional areas. School activity is: "the program organized by the school integrated with the educational program that the student desires and willingly implements with a natural tendency towards it, in order to achieve educational goals whether they are related to teaching the school subjects, to acquiring experience or skills, or to a scientific or practical approach inside or outside the classroom during the school day or after finishing studying. This should lead to developing the student's experience, his hobbies and abilities in the desired educational and social approaches (Abd Al-Wahab, 1997: 21). School activities were defined as the programs and exercises that mind the students and polish their skills through the physical and mental efforts exerted by them in a way that suits their abilities and interests inside and outside the school, so that helps to enrich the experience and acquire multiple skills that serve the demands of the students' growth, and meet the requirements of the progress of the society and confirm its values.

Extra-curricular activities are defined as: "the educational practices implemented by the students inside and outside the school environment as part of the educational and learning process under the supervision of the teacher, aiming at building the abilities and acquiring the needed skills in the educational process in the cognitive, psycho-motor and socio-emotional areas" (Al-Faraji, 2005: 102).

The emergence and evolution of the concept of extra-curricular activities:

Most of the school activities were practiced in the Greek and Roman era. Greeks were known for the various types of activities, such as elocution, acting, debates and sports. Before Islam, Arabs were interested in various aspects of activity. The first school interested in activity in the modern age was founded in Chicago in 1896 by John Dewey.

The nineteenth and twentieth centuries have witnessed a great development in the types of student activity (Al-Dakheil, 2002). Some consider the concept of "student activities" as a modern concept used in education and as one of the most important educational means to achieve many of the objectives of modern education. However, student activities are as old as the educational system itself, and many of these activities have been found in the old schools. For example, history shows us the interest of Sparta and Athens in sports, music, elocution competitions, student participation in autonomy, clubs, debates, analogues And groups of social activity (Fathi, 1980).

These activities have arisen in an unorganized manner in educational institutions. They were largely based on individual efforts before the nineteenth century. Many school administrations and teachers at that time had a vague vision of these activities; they were afraid that they might occupy the student's time, who must devote his efforts to the academic study and education, (Jackson, 1992: 1003).

The difficulties that face the implementation of extra-curricular activities:

Many studies in the field of extra-curricular activities have handled the difficulties of implementing activities at schools. They pointed out the obstacles that prevent the

implementation of school activity, such as the lack of cooperation by the school management and their misinterpretation of the extra-curricular activity as they consider it a separated recreational work that wastes the student's time. These studies have shown that the opposition of some parents to the participation of their children in extra-curricular activities prevents the implementation of these activities, in addition; there are many rented school buildings where there is no suitable place to practice and carry out extra-curricular activities. Moreover, the large number of classes along the curriculum leads to insufficient allocation of time for the implementation of extra-curricular activities. More of these difficulties that affect the implementation of extra-curricular activities are discouraging teachers from supervising the activities and the lack of incentives to encourage students to take part in them, also the lack of material and moral capabilities (Al-Duwisiri, 2004).

Creative thinking:

It is defined as: "a mental process in which the learner interacts with the various experiences he faces aiming at understanding the elements of the situation to reach a new perspective and production as a genuine solution for the problem or to discover something new of value to him and to the society in which he lives" (Habash, 2005).

It also can be defined as "the process that results in solutions or ideas from outside the cognitive framework of the individual whether regarding the information he thinks about or for the prevailing information in the environment, with the aim of the emergence of new ideas" (Ibrahim, 2005: 258).

Creative thinking skills:

Creative thinking skills have varied, and here we present them:

1. **Originality**: it is the ability to come up with new, rare, useful ideas unrelated to the repetition of previous ones. It is an unfamiliar long-term production. Many researchers agree that originality is "the ability to produce authentic responses, i.e. with few repetitions; statistically speaking, within the group to which the individual belongs, that is, the less the idea is common, the more likely it is to become authentic (Al-Sharbini & Yasirieh, 2002).
2. **Fluency**: it is the ability to produce several verbal and performance ideas for a free open-ended problem. It is also the ability to generate a large number of alternatives or ideas when responding to a given stimulus, and the speed and facility in their generation. It is essentially a process of remembering and recalling previously learned information, experiences or concepts (Al-Swedan & Al-Adwani, 2002).

Fluency can be summarized in the following types:

a) Word fluency: it means the thinking speed the individual enjoys to give words and to generate them in a good format.
b) Association fluency: it is to produces the largest number possible of synonyms.
c) Ideation fluency: it is to recall the largest number of ideas at the same time.
d) Formation fluency: it is to present some additions to specific forms to be real (Al-Titi, 2001).

3. **Flexibility**: it is the change in the individual's state of mind by the change of the situation. It means the ability to generate diverse ideas that are not the usually expected ones, and to direct the course of thinking according to the change of the stimuli or the requirements of the situation. It is the opposite of the mental inertia, which means adopting predetermined unchangeable mental patterns according to the need. Flexibility has two aspects:
    a) Automatic flexibility: It is the individual's ability to automatically give diverse information that does not belong to one category or origin. It also refers to the individual's flexibility that appears without a necessary need required by the situation, so the person gives a number of responses that do not belong to one category, but belong to several ones. This is what distinguishes it from fluency with all its types, as flexibility highlights the importance of changing the direction of ideas, while fluency highlights the importance of the abundance of these ideas only.
    b) Adaptive flexibility: it is the individual's ability to change his mental orientation when he is looking for a solution for a particular problem. It can be seen as the positive side of mental adaptation. A flexible person in terms of mental adaptation is the opposite of the mentally inexorable person. This type of flexibility is called the adaptive flexibility because it needs a behavioral modification to conform to a proper solution (Ibrahim, 2002).
4. **Problems sensitivity**: it means the awareness of the existence of problems, needs or elements of weakness in the environment or situation. This means that some individuals are quicker than others in recognizing the problem and verifying its existence in the situation. There is no doubt that the discovery of the problem is the first step in the process of looking for its solution. What relates to this ability is to observe the unusual, abnormal or confusing things in the individual's surrounding, or to re-employ them and raise questions related to them. No doubt that people whose sensitivity increases towards the realization of the shortages of different situations are more likely to dig and study them, therefore the probability of creativity will increase (Jarwan, 2002).
5. **Details**: they are the ability to add new diverse details to an idea or a problem that are supposed to develop, enrich and implement it.

Theories that interpret the creative thinking:

There are several theories followed by the intellect to investigate the creative thinking. Some of these theories are: the analytical theory, the correlational theory, Gestalt theory, the humanitarian theory and the factor theory.

A. The psychoanalysis theory:

Freud sees that creativity arises as a result of psychological conflict at the beginning of an individual's life (as a defensive trick) to counteract the libidic power that the society does not accept to express. In creativity, the creative get away from reality to live a fictional life. Creativity is a continuation of the inspirational play initiated by the creative when they were little (Shakur, 1994: 162; Hijazi, 2001: 26). Freud has linked creativity and other behaviors to the set of motives driven by the unconscious. If the individual could not freely express his desires, then these desires must be released in other ways or they should be compensated. Creativity according to him represents a healthy form of compensation (Sublimation) using unconscious motives that were not fulfilled through productive

objectives (Starko, A., 1995).

The emergence of creative ideas, whether through plastic art, music, literature, or in the form of innovative scientific production, may require a person to reshape his fantasies in a new realistic manner. The elevation or replacement by this new course will lead to the emergence of scientific and artistic mental processes and intellectual activities, allowing their possessors to play an important role in civil life (Ramadan Al-Qathafi, 2000).

Yong has distinguished between two types of unconsciousness; one is personal as Freud has explained and the other is collective transmitted through heredity carrying the experiences and tradition of ancestors. For Yong, the collective unconsciousness is the source of creativity (Hasan Isa, 1994).

Kris sees that creative individuals are capable of recreating a mental state similar to the childhood mentality, where the unconscious ideas reach the conscious in an easier way. Jung, one of Freud followers, has emphasized the importance of the personal and unconscious experience in setting the creative productive framework. He has defined the creative person as the one able to engage in the collective unconsciousness (Starko, A., 1995: 31-33).

From the above mentioned we find that the concept of creativity in the light of the psychoanalysis theory emphasizes the role played by the contents and motives outside the range of the individual's awareness and his knowledge about the creative process.

B. The correlational theory:

Those who adopt this tendency believe that the creative process is the ability to form correlational elements in a new or innovative way in order to achieve an expected benefit. The correlational theory defines the creativity process as "collecting the correlated elements in specific formations to fulfil the needs or to achieve some benefits, and the more the new formed elements are heterogeneous the higher the level of creative thinking ability becomes" (Shakkur, 1994; Isa, 1994: 166).

There are three ways for these correlations to happen (Hijazi, 2001):

1. **The happy coincidence**: when the correlative elements are stimulated together by occasional environmental stimuli new correlations emerge between elements that have never been correlated, such as the discovery of x-ray, penicillin and Archimedes law.

2. **Similarity**: this means that the correlative elements might be stimulated together due to the similarity between these elements and the stimuli that stimulates them. This appears in creative writing, poetry, music composition and drawing. It depends on the similarity between the units that form the production, like words. The occurrence of the conjunction between these elements can be traced back to "the stimuli mainstreaming".

3- **The mediator**: the required correlated elements that are time-connected might be stimulated by other familiar elements. This is common in the fields that depend on symbols such as mathematics and chemistry…etc.

C. Gestalt theory:

Gestalt point of view in the matter of creativity is explained through the cognitive

field of the creative person. It describes the process of creative thinking as follows:

At the beginning an important part of the visual field emerges and becomes the center without being separated from the rest of the field. When part of the visual field is different in color or shade, it looks as a figure and everything else will be the ground. This is followed by perceiving the field in a deeper structural form which allows modifications and changes in the functional meaning. Creativity from Gestalt point of view is represented in the ability to see the field components and realize the relationships that cannot be adopted by a glance, and then comes the vision that suddenly brings the solution (Al-Qathafi, 2000).

This theory was founded by Werthemer who sees that creative thinking usually starts with a problem, and it must be taken into account when formulating the problem and the solution (Ab Al-Aziz, 1997).

D. The humanitarian theory:

Maslow has described creativity as the core characteristic of human nature. It is a capacity given to all or most of the human beings since birth, provided that society is free of stress and frustration. Two types of creativity have been identified as follows:

* The special creative ability; it depends on the talent and the continuous hard work.

* The creativity of self-inquiry; or creativity as a facet of self-actualization.

Maslow sees that the ability to express ideas without self-criticism is an important thing for the creativity of self-actualization. This ability equalizes the happy innocent creativity of children (Hijazi, 2001), Starko, A., 1995).

E. The factor theory:

Guliford points of view represent the most important issues that the factor theory came up with in the field of creative thinking. He sees that creative thinking is originally a diverging thinking and the opposite is not true. In other words, diverging thinking is not necessary the creative thinking, which means that fluency, flexibility and originality as diverging processes that play a main role in the creative thinking. Fluency is meant to produce a stream of correlated responses; it is quantitatively determined in light of the number and the speed of these responses. And How To of fluency is determine depending on the diversity of these responses. The How To of originality is also determined in light of the scarcity and lack of familiarity of these responses. (Sadiq, Abu Hatab, 1994; Al-Sahmawi, 1998).

Methodology of the study:

The study approach: the approach that was followed in this study is the descriptive correlational approach that one of its types is the scientific research. It is considered as the most important approach followed in this type of studies as it is characterized by accuracy

in illustrating the reality of scientific phenomena and the factors that lead to commit it.

Population and sample of the study:

The population of the study included all students in Karak governorate's schools. (2) Schools have been chosen (AL-Shihabiya Secondary School for boys and Al-Shihabiya Secondary Mixed School for girls). The study used the simple random sample method as for the targeted category is school students. The sample composed of (94) students; males and females, (45) of them are males and (49) are females. Table (1) explains this:

Table (1): repetitions and percentages according to the variables of the study

	Categories	Repetitions	Percentage
Gender	Male	45	47.9
	Female	49	52.1
Educational stage	Ninth grade	44	46.8
	Tenth grade	50	53.2
	Total	**94**	**100.0**

		Educational stage		Total
		Ninth grade	Tenth grade	
Gender	Male	20	25	45
	Female	24	25	49
Total		44	50	94

Variables of the study:

Independent variables: gender, educational stage.

Dependent variables: achievement motivation, extra-curricular activities in the development of creative thinking skills.

Tools of the study:

1- The tool of achievement motivation:

The researcher used Al-Sahli scale (2015) for achievement motivation, composed of (4) domains; each domain is composed of (6) items. The domains are (motive to success domain, success probability domain, success emitting value domain, cognitive motivation and achievement domain).

Table (2): dimensions of achievement motivation scale, the number of items for each and their responses

No.	dimension (skill)	Domain referring items					
1	motive to success	1	5	9	13	17	21
2	Success probability	2	6	10	14	18	22
3	Success emitting value	3	7	11	15	19	23

4	Cognitive motivation and achievement	4	8	12	16	20	24
	Total	1 – 24					

The answers of the scale's items vary from (always, often, sometimes, rarely, never), respectively given the following degrees (5 – 4 – 3 – 2 – 1) for all the items.

Validity of the original scale:

Validity has been verified through two ways:

A- Content validity:

This scale has been developed depending on particular procedural steps, referring to previous literature, the theoretical framework, and the content of the available scales that indicate the achievement motivation. These procedures were considered the proof of the content validity.

B- External validity:

The test has been reviewed by ten specialized arbitrators to judge the appropriateness of its items to the students, their clarity, their efficiency, the sufficiency of their numbers, and their illustration of achievement motivation that all these items have been developed to measure it. Arbitrators notes have been taken into account and the required modifications have been applied as four items have been deleted. (85%) of the arbitrators' agreement has been adopted.

Reliability of the original scale:

Reliability of the achievement motivation scale has been verified through the (test-retest) method. The scale has been repeated two weeks later on an external group, separated from the study sample, composed of (40) students. Pearson correlation coefficient has been calculated for both times and it ranged between (0.71 – 0.76).

The internal consistency coefficient was calculating based on Cronbach's Alpha formula. It varied between (0.62 – 0.92). Table (3) shows the internal consistency coefficient according to Cronbach's Alpha formula and the reliability of repetition for the domains and the tool as a whole. These values were considered appropriate for the objectives of this study. Table (3) explains this:

Table (3): Cronbach's Alpha internal consistency coefficient and the reliability of repetition for the achievement motivation scale

No.	Domain	Reliability of repetition	Internal consistency
1)	Motive to success	0.74	0.86
2)	Success probability	0.76	0.92
3)	Success emitting value	0.72	0.62
4)	Cognitive motivation and achievement	0.71	0.69
	Achievement motivation scale as a whole	0.73	0.77

2- The tool of extra-curricular activities in the development of creative thinking skills:

The researcher used Al-Yami scale (2014), composed of (41) items. The researcher has developed the study tool addressed to the students. (41) Items divided over (5) domains: first domain is fluency composed of (9) items, the second is flexibility composed of (8) items, the third is originality composed of (8) items, the forth is details composed of (8) items and the fifth is problems sensitivity composed of (8) items.

Validity of the original scale:

First: the validity of arbitrators: The scale has been reviewed by ten specialized arbitrators in educational psychology and educational sciences in Al-Balqa' Applied University. Base on their notes, some words and structures have been changed. 80% of the arbitrators' agreement has been adopted.

Second: construct validity: correlation coefficients between the items and the dimension have been calculated and their total score. Table (4) explains this:

Table (4): correlation coefficients between the items and the dimensions, and the total score of the study tool

Item no.	Dimension	Total score	Item no.	Dimension	Total score	Item no.	Dimension	Total score
1	.618**	.487**	15	.737**	.657**	29	.773**	.644**
2	.676**	.504**	16	.667**	.599**	30	.777**	.668**
3	.630**	.465**	17	.745**	.692**	31	.752**	.682**
4	.634**	.524**	18	.695**	.666**	32	.808**	.700**
5	.647**	.590**	19	.710**	.631**	33	.744**	.664**
6	.710**	.584**	20	.707**	.654**	34	.657**	.633**
7	.731**	.600**	21	.653**	.594**	35	.638**	.578**
8	.640**	.471**	22	.757**	.681**	36	.755**	.628**
9	.599**	.521**	23	.715**	.660**	37	.730**	.613**
10	.689**	.573**	24	.689**	.547**	38	.744**	.709**
11	.683**	.541**	25	.640**	.595**	39	.717**	.646**
12	.708**	.611**	26	.677**	.667**	40	.727**	.603**
13	.599**	.478**	27	.677**	.612**	41	.719**	.616**
14	.619**	.593**	28	.694**	.549**			

From the above table we see that correlation coefficients are statistically significant at (α=0.05) and are accepted for the objectives of the study.

Reliability of the original scale:

The reliability of the scale has been verified through Cronbach's Alpha coefficient. It was calculated as an indicator of internal consistency. The following table clarifies Cronbach's Alpha coefficients. The study tool has been applied to verify its validity and reliability over a survey sample from outside the study sample (30) students; males and females. Table (5) clarifies this:

Table (5): Cronbach's Alpha coefficients for the study tool and its sub-dimensions

Dimension	Cronbach's Alpha coefficient
Fluency	0.83
Flexibility	0.84
Originality	0.85
Details	0.88
Problem sensitivity	0.88
Total	**0.96**

Explanation of the degrees on the scale:

The process of correcting the scale was conducted through viewing the students' answers that were given according to Likert Scale with the following order (always, often, sometimes, rarely, never) and give each the following values respectively (5, 4, 3, 2, 1). To evaluate the role of extra-curricular activities in the development of creative thinking skills, the following coefficient has been followed:

- The arithmetic mean of the item that is less than 2.33 represents a low role.

- The arithmetic mean of the item that ranges from 2.33 to 3.66 represents a medium role.

- The arithmetic mean of the item that ranges from 3.67 to 5 represents a high role.

Presenting the results related to the questions of the study and their discussion:

First question: What is the level of achievement motivation among students in governmental schools in Karak city in the Hashemite Kingdome of Jordan?

To answer this question, the arithmetic means and the standard deviations have been calculated for the level of achievement motivation among governmental schools students in Karak city in the Hashemite Kingdom of Jordan. Table (6) explains this:

Table (6): Arithmetic means and standard deviations of the level of achievement motivation among governmental schools students in Karak city in the Hashemite Kingdom of Jordan, in a descending order according to the arithmetic means

Rank	No.	Domain	Arithmetic mean	Standard deviation	Level
1	1	Motive to success	4.25	.559	High
2	2	Success probability	4.00	.613	High
3	3	Success emitting value	3.96	.628	High
4	4	Cognitive motivation and achievement	3.79	.693	High
		Achievement motivation as a whole	**4.00**	**.466**	**High**

Table (6) shows that arithmetic means have ranged from (3.79 to 4.25). The domain of motive to success came in the first rank with the highest arithmetic mean (4.25), whereas the domain of cognitive motivation and achievement came in the last rank with an arithmetic

mean of (3.79). The arithmetic mean of achievement motivation as a whole was (4.00).

Second question: What is the role of extra-curricular activities in the development of creative thinking skills from the perspective of governmental schools students in Karak city in the Hashemite Kingdom of Jordan?

To answer this question, the arithmetic means and standard deviations have been calculated for the role of extra-curricular activities in the development of creative thinking skills from the perspective of governmental schools students in Karak city in the Hashemite Kingdom of Jordan. The following table shows this:

Table (7): arithmetic means and standard deviations have been calculated for the role of extra-curricular activities in the development of creative thinking skills from the perspective of governmental schools students in Karak city in the Hashemite Kingdom of Jordan, in a descending order according to the arithmetic means

Rank	No.	Skill	Arithmetic mean	Standard deviation	Level
	2	Flexibility	4.20	.572	High
	1	Fluency	4.19	.480	High
	4	Details	4.12	.622	High
	3	Originality	4.00	.617	High
	5	Problem sensitivity	3.94	.691	High
		Extra-curricular activities	**4.09**	**.492**	**High**

Table (5) shows that arithmetic means have ranged from (3.94 to 4.20). The skill of flexibility came in the first rank with the highest arithmetic mean (4.20), whereas the skill of problem sensitivity came in the last rank with an arithmetic mean of (3.94). The arithmetic mean of extra-curricular activities as a whole was (4.09).

Third question: are there statistically significant differences at ($\alpha \leq 0.05$) in the level of achievement motivation in governmental schools in Karak city in the Hashemite kingdom of Jordan attributed to the variables of gender and educational stage and the interaction between the two?

To answer this question, arithmetic means and standard deviations have been calculated for the level of achievement motivation in the governmental schools in Karak city in the Hashemite Kingdom of Jordan according to the variables of gender and the educational stage. Table (8) shows this:

Table (8): arithmetic means and standard deviations for the level of achievement motivation in governmental schools in Karak city in the Hashemite Kingdom of Jordan according to the variables of gender and educational stage

	Educational stage	Male		Female		Total	
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation
Motive to success	**Ninth grade**	4.21	.592	4.53	.465	4.38	.545

	Tenth grade	4.07	.583	4.21	.522	4.14	.553
	Total	4.13	.585	4.37	.515	4.25	.559
Success probability	**Ninth grade**	3.88	.673	4.18	.491	4.05	.593
	Tenth grade	3.81	.619	4.11	.625	3.96	.633
	Total	3.84	.637	4.14	.559	4.00	.613
Success emitting value	**Ninth grade**	3.86	.720	4.16	.628	4.02	.681
	Tenth grade	3.99	.634	3.82	.516	3.91	.578
	Total	3.93	.669	3.99	.593	3.96	.628
Cognitive motivation and achievement	**Ninth grade**	3.82	.804	4.03	.673	3.93	.734
	Tenth grade	3.44	.636	3.88	.562	3.66	.634
	Total	3.61	.732	3.95	.617	3.79	.693
Achievement motivation as a whole	**Ninth grade**	3.94	.554	4.22	.440	4.10	.509
	Tenth grade	3.83	.405	4.01	.406	3.92	.411
	Total	3.88	.475	4.11	.433	4.00	.466

Table (8) showed an apparent contrast between the arithmetic means and standard deviations of the level of achievement motivation in governmental schools in Karak city in the Hashemite Kingdom of Jordan due to the differences in the categories of the variables of gender and educational stage.

To find the significance of statistical differences among the arithmetic means, the Multivariate Tow-Way Analysis has been applied on the domains; table (9), and the Tow-Way Analysis has been applied on the tool as a whole; table (10):

Table (9): multiple Tow-Way analysis of variables of gender and educational stage and the interaction between them regarding the domains of achievement motivation

Variable	Domain	Squares sum	DF	Square mean	F	Sig.
Gender Hotelling= 112 ح= 112	Motive to success	1.266	1	1.266	4.325	.040
	Success probabilities	2.032	1	2.032	5.586	.020
	Success emitting value	.096	1	.096	.246	.621
	Cognitive motivation and achievement	2.470	1	2.470	5.557	.021
Educational stage Hotelling= .068 ح= .217	Motive to success	1.212	1	1.212	4.141	.045
	Success probabilities	.121	1	.121	.332	.566
	Success emitting value	.244	1	.244	.629	.430
	Cognitive motivation and achievement	.174	1	.174	.594	.443

Gender X educational stage Wiliks= .932 ح= .182	Motive to success Success probabilities Success emitting value Cognitive motivation and achievement	.174 .0001 1.313 .305	1 1 1 1	.174 .0001 1.313 .305	.594 .000 3.380 .687	.443 .988 .069 .409
Error	Motive to success Success probabilities Success emitting value Cognitive motivation and achievement	26.337 32.734 34.953 39.998	90 90 90 90	.293 .364 .388 .444		
Total	Motive to success Success probabilities Success emitting value Cognitive motivation and achievement	29.096 34.944 36.635 44.634	93 93 93 93			

Table (9) shows:

- There are statistically significant differences at ($\alpha \leq 0.05$) attributed to the effect of gender in all domains except for the domain of success emitting value. The differences were in favor of the females.

- There are no statistically significant differences at ($\alpha \leq 0.05$) attributed to the effect of educational stage in all domains except for the domain of motive to success. The differences were in favor of the ninth grade.

- There are no statistically significant differences at ($\alpha \leq 0.05$) attributed to the effect of interaction between gender and the educational stage in all domains.

Table (10): Two-Way Analysis of variance for the effect of gender and educational stage and the interaction between them regarding the total score of achievement motivation

Variable	Squares sum	DF	Square mean	F	Sig.
Gender	1.227	1	1.227	6.079	0.016
Educational stage	0.643	1	.643	3.187	0.078
Gender X educational stage	0.065	1	0.065	0.322	0.572
Error	18.166	90	0.202		
Total	20.175	93			

Table (10) shows the following:

- There are statistically significant differences at ($\alpha \leq 0.05$) attributed to the effect of gender. F value was (0.016). Differences were in favor of females.

- There are no statistically significant differences at (($\alpha \leq 0.05$) attributed to the effect of

educational stage. F value was (3.187) with a statistical significance of (0.078).

- There are no statistically significant differences at ((α ≤ 0.05) attributed to the effect of educational stage. F value was (3.187) with a statistical significance of (0.078).

- There are no statistically significant differences at ((α ≤ 0.05) attributed to the effect of educational stage. F value was (3.187) with a statistical significance of (0.078).

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- There are no statistically significant differences at ((α ≤ 0.05) attributed to the effect of educational stage. F value was (3.187) with a statistical significance of (0.078).

- There are no statistically significant differences at ((α ≤ 0.05) attributed to the effect of the interaction between gender and the educational stage. F value was (0.322) with a statistical significance of (0.572).

Forth question: Are there Are there statistically significant differences at (α ≤ 0.5) in the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan attributed to the variables of gender and the educational stage and the interaction between the two?

To answer this question, the arithmetic means and standard deviations of the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan according to the variables of gender and the educational stage. Table (11) explains this:

Table (11): Arithmetic means and standard deviations of the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan according to the variables of gender and the educational stage

	Educational stage	**Male**		**Female**		**Total**	
		Arithmetic mean	**Standard deviation**	**Arithmetic mean**	**Standard deviation**	**Arithmetic mean**	**Standard deviation**
Fluency	**Ninth grade**	4.08	.500	4.28	.551	4.19	.532
	Tenth grade	4.18	.436	4.19	.443	4.18	.435
	Total	4.13	.463	4.24	.496	4.19	.480
Flexibility	**Ninth grade**	4.06	.708	4.29	.487	4.19	.601
	Tenth grade	4.19	.633	4.22	.467	4.20	.551
	Total	4.13	.663	4.26	.473	4.20	.572
Originality	**Ninth grade**	3.84	.668	4.09	.663	3.97	.669

	Tenth grade	3.93	.596	4.12	.544	4.02	.573
	Total	3.89	.623	4.10	.599	4.00	.617
Details	**Ninth grade**	4.09	.674	4.23	.682	4.17	.674
	Tenth grade	3.96	.581	4.18	.559	4.07	.575
	Total	4.02	.620	4.21	.616	4.12	.622
Problem sensitivity	**Ninth grade**	4.04	.578	4.01	.693	4.02	.636
	Tenth grade	3.69	.767	4.04	.668	3.87	.734
	Total	3.84	.704	4.03	.674	3.94	.691
Extra-curricular activities as a whole	**Ninth grade**	4.02	.528	4.18	.531	4.11	.530
	Tenth grade	3.99	.451	4.15	.467	4.07	.461
	Total	4.01	.481	4.17	.494	4.09	.492

Table (11) shows an apparent contrast in the arithmetic means and standard deviations for the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in governmental schools in Karak city in the Hashemite Kingdom of Jordan because of the differences in the categories of the variables of gender and educational stage.

To show the statistically significant differences between the arithmetic means, the Multiple Tow-Way Analysis has been applied on the skills; table (12), and the Two-Way Analysis of extra-curricular activities; table (13).

Table (12): Multiple Tow-Way Analysis for the effect of gender and educational stage and the interaction between them regarding the skills

Variable	Domains	Squares sum	DF	Square mean	F	Sig.
Gender Hotelling= .038 ~= 663	Fluency	.277	1	.277	1.186	.279
	Flexibility	.391	1	.391	1.180	.280
	Originality	1.159	1	1.159	3.048	.084
	Details	.763	1	.763	1.965	.164
	Problem sensitivity	.607	1	.607	1.294	.258
Educational stage Hotelling= .048 ~= .540	Fluency	.000	1	.000	.002	.965
	Flexibility	.018	1	.018	.055	.815
	Originality	.082	1	.082	.217	.643
	Details	.182	1	.182	.469	.495
	Problem sensitivity	.589	1	.589	1.254	.266
Gender X educational stage Wiliks= .938 ~= .349	Fluency	.213	1	.213	.913	.342
	Flexibility	.231	1	.231	.697	.406
	Originality	.018	1	.018	.048	.827
	Details	.027	1	.027	.070	.792
	Problem sensitivity	.828	1	.828	1.765	.187

Error	Fluency	21.002	90	.233		
	Flexibility	29.830	90	.331		
	Originality	34.221	90	.380		
	Details	34.938	90	.388		
	Problem sensitivity	42.246	90	.469		
Total	Fluency	21.462	93			
	Flexibility	30.422	93			
	Originality	35.438	93			
	Details	35.963	93			
	Problem sensitivity	44.367	93			

Table (12) shows that:

- There are no statistically significant differences at ($\alpha \leq 0.5$) attributed to the effect of gender in all skills.

- There are statistically significant differences at ($\alpha \leq 0.5$) attributed to the effect of educational stage in all skills.

- There are no statistically significant differences at ($\alpha \leq 0.5$) attributed to the interaction between gender and the educational stage in all skills.

Table (13): Multiple Tow-Way Analysis for the effect of gender and educational stage and the interaction between them regarding the total score of extra-curricular activities

Variable	Squares sum	DF	Square mean	F	Sig.
Gender	.593	1	.593	2.438	.122
Educational stage	.021	1	.021	.088	.768
Gender X educational stage	.000	1	.000	.001	.981
Error	21.891	90	.243		
Total	22.519	93			

Table (13) shows:

- There are no statistically significant differences at ($\alpha \leq 0.5$) attributed to the effect of gender. F value was 2.438 with a statistical significance of (0.122).

- There are no statistically significant differences at ($\alpha \leq 0.5$) attributed to the effect of educational stage. F value was (0.088) with a statistical significance of (0.768).

- There are no statistically significant differences at ($\alpha \leq 0.5$) attributed to the effect of the interaction between gender and the educational stage. F value was (0.001) with a statistical significance of (0.981).

Fifth question: Is there a statistically significant correlation at ($\alpha \leq 0.5$) between the achievement motivation and the role of extra-curricular activities in the development of

creative thinking skills through the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan?

To answer this question, Pearson correlation coefficient has been calculated between achievement motivation and the role of extra-curricular activities in the development of creative thinking skills through the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan. Table (14) explains this:

Table (14): Pearson correlation coefficient of the relationship between achievement motivation and the role of extra-curricular activities in the development of creative thinking skills through the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan

		Motive to success	Success possibilities	Success emitting value	Cognitive motivation and achievement	Achievement motivation as a whole
Fluency	**Correlation coefficient (R)**	.084	-.082	-.110	.075	-.011
	Statistical significance	.420	.429	.290	.471	.916
	Number	94	94	94	94	94
Flexibility	**Correlation coefficient (R)**	.036	-.049	-.157	-.103	-.097
	Statistical significance	.728	.638	.130	.321	.353
	Number	94	94	94	94	94
Originality	**Correlation coefficient (R)**	.026	-.052	-.271**	-.146	-.155
	Statistical significance	.804	.618	.008	.160	.136
	Number	94	94	94	94	94
Details	**Correlation coefficient (R)**	-.051	-.125	-.186	-.096	-.155
	Statistical significance	.622	.229	.072	.360	.136
	Number	94	94	94	94	94
Problem sensitivity	**Correlation coefficient (R)**	.043	.021	-.021	.030	.024
	Statistical	.677	.840	.844	.777	.818

	significance					
	Number	94	94	94	94	94
Extra-curricular activities	**Correlation coefficient (R)**	.032	-.067	-.177	-.059	-.094
	Statistical significance	.761	.523	.087	.575	.368
	Number	94	94	94	94	94

* Statistically significant at Sig. (0.05).

** Statistically significant at Sig. (0.01).

Table (14) shows that there is no statistically significant relationship between achievement motivation and the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in governmental schools in Karak city in the Hashemite Kingdom of Jordan, except for the negative statistically significant relationship between originality and the success emitting value.

Discussion of the study results and recommendations:

Results related to the study questions and their discussion:

First question: what is the level of achievement motivation for students of governmental schools in Karak city in the Hashemite Kingdom of Jordan?

The domain of motive to success has come in the first rank. The researcher attributed this to the fact that the tendency to achievement motivation is an acquired matter. It differs among students, as well as in differs for the same student from one situation to another. This motivation is affected by three main factors when the student is performing a specific task. These factors are related to the motive to success and the success possibilities connected to the difficulty of the task, whereas the domain of cognitive motivation and achievement came in the last rank. The results showed that motivation is the potential needs and desires of students; they direct the student toward the goals that he can realize consciously or unconsciously. Motivation has two types; internal motivation and external motivation, and the teacher has to know how to use them.

Discussion of the second question: What is the role of extra-curricular activities in the development of creative thinking skills from the perspective of governmental schools students in Karak city in the Hashemite Kingdom of Jordan?

The results of this question showed that flexibility has come in the first rank. The researcher attributed this to the fact that students have the ability to generate various ideas that are usually unexpected, and to direct their thinking according to the stimuli and the requirements of the situation. It is the opposite of mental inertia which means adopting pre-determined mental patterns that cannot be changed according to the need in hand through the automatic flexibility of giving divers information automatically that don't belong to one category or origin. t also refers to the flexibility shown by the individual without the necessary need required by the situation; so the person gives a number of responses that

does not belong to one category but to a number of categories. This distinguishes it from fluency with all its types, as the factor of flexibility reveals the importance of changing the direction of thoughts, whereas the factor of fluency reveals the importance of the abundance of these ideas only, and the ability of the student to change his mental direction when trying to solve a particular problem. It can be seen as the positive aspect of mental adaptation. A flexible person regarding mental adaptation is the opposite of the person with mental Inertia. This type of flexibility is called the adaptive flexibility because it needs a behavioral adjustment to cope with the correct solution.

The skill of problem sensitivity came in the last rank. The researcher attributed this to the lack of awareness of students about the existence of problems, needs or weak elements in the environment or the situation, which means that some individuals are faster than others in recognizing the existence of the problem in a given situation. No doubt that recognizing the problem is the first step to solve it. This is related to the ability to observe unusual, abnormal or confusing things in the individual's surrounding, or to re-employ them and to raise questions about them. Moreover, it is undoubtable that individuals who are increasingly sensitive to the realization of the deficiency of different situations are more likely to study them, and therefore the likelihood will increase in the direction of creativity and innovation.

Third question: are there statistically significant differences at ($\alpha \leq 0.05$) in the level of achievement motivation in governmental schools in Karak city in the Hashemite kingdom of Jordan attributed to the variables of gender and educational stage and the interaction between the two?

The existence of statistically significant differences is attributed to the effect of gender in all domains except for the domain of success emitting value; differences were in favor of females. The researcher attributes this to the increment of the problem's difficulty which requires an increment in the emitting value; as the more the difficulty of the problem increases the higher the emitting value is, as for it is the highest value to maintain a high level of motivation. Difficult tasks related to low emitting values do not stimulate students' enthusiasm to perform with high motivation. The student himself is the one who assesses the difficulty of the task and its emitting value. The results showed that there are no statistically significant differences attributed to the effect of educational stage in all domains. There are no statistically significant differences for the effect of the interaction between gender and the educational stage in all domains. This shows that achievement motivation with all its domains is obtained by students of all educational stages, as for competition and the high spirit to achieve good grades and achievement, regarding the curricular and extra-curricular levels, are the ambition of all students of all classes and ages. The results also show regarding gender that both males and females have the desire for excellence and success and have the ability for school diligence.

Discussion of the forth question's results: Are there Are there statistically significant differences at ($\alpha \leq 0.5$) in the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan attributed to the variables of gender and the educational stage and the interaction between the two?

The absence of statistically significant differences is attributed to the effect of gender. The researcher attributes this to the fact that creative thinking with all its skills is acquired by students of both genders (males and females). Creative thinking with all its skills, as

shown in the results, is taught and applied on students through activities during all the educational stages. There were no statistically significant differences attributed to the interaction between gender and the educational stage, as for there is no connection between gender and the educational stage in the students' answers on creative thinking and its skills in the application of extra-curricular activities. The researcher attributes this to the matter that students' creative thinking and skills represented by the characteristics of this stage (such as minding exchanging and identifying things, being interested in exploration, experimenting and realizing the components or elements of things, as well as the students' ability of imagination that occurs through their Ostensible playing and activities, and the increment of questions to fulfil their mental needs for research and investigation) exist with a high level among students of both genders in all stages.

Fifth question: Is there a statistically significant correlation at ($\alpha \leq 0.5$) between the achievement motivation and the role of extra-curricular activities in the development of creative thinking skills through the perspective of students in the governmental schools in Al-Karak City in the Hashemite Kingdom of Jordan?

The results of this question showed that there is no statistically significant relationship between achievement motivation and the role of extra-curricular activities in the development of creative thinking skills from the perspective of students in the governmental schools in Al-Karak city in the Hashemite Kingdom of Jordan, except for the negative statistically significant relationship between success emitting value and originality. The researcher attributes this to the nature of achievement of students as it is innate since childhood encouraged by parents and the surrounding environment in all fields, whether academic or non-academic, since students always aspire for achievement, creativity, personality development, intellect development and behavior development. The students' answers indicated that creative thinking skills in the development of extra-curricular activities are not fundamental for the students' achievement motivation. Creative thinking skills must be taught and developed for the students as they naturally have the love for achievement, diligence, excellence and success.

Recommendations:

In the light of the previous results, the following recommendations were concluded:

1. The importance of the diversity of creative thinking methods in the development of extra-curricular activities, taking into account focusing on the achievement motivation of students.
2. The importance of teachers' application of creative thinking skills, achievement motivation and the students' skills according to their personal skills.
3. The importance to benefit from the nature of different extra-curricular activities in the development of creative thinking skills, the students' achievement motivation and their training.

Conducting studies and researches in the field of achievement motivation and creative thinking skills in the light of other variables.

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