

*Full Length Research Paper*

# The effect of artistry activities on the cognitive development among kids from 4-9 years old in grades kg1- third grade at public schools in Amman 2013/ 2014

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This study aimed to identify importance of the art activities and its impact on performance of students' abilities and achievements, particularly among students in age group of 4-9 years, which covers KG1 - third grades at public and private schools in Jordanian capital, Amman. The objectives of the study were achieved through selection the study sample intentionally. The study results revealed importance of various art activities in support of the child growth and development , their skills and abilities based on teacher's evaluation. The researcher recommends giving importance to focusing on various of art activities which are functional and appropriate factors for children , their interests and abilities in general and in the classroom in particular besides confirming on development of students ' knowledge through everything that can be provided by the environment and what is available or that can be provided for students classroom and teacher training on the uses of art activities and employing them in learning- educational process along with providing information in this regard for academics ,educational policy makers, curricula developer and designer of educational materials on the results of studies concentrating on the impact of art subjects at the classroom's activities on growth of the students and support of their personalities , performance and achievement which will raise their level of contact and influence in learning- education process.

**Key Words:** Artistry Activities, Cognitive Development, Child's Growth, Performance, Level of Contact

## INTRODUCTION

The main concerns of educators nowadays is to employ all available energies as well as capabilities to support growth and development of children as such responsibility is implemented by the mother instinctively for progress towards the top advancement with her children as she strives to provide them with talents that makes them privileged .

Consequently, both the teacher and the mother are now more aware , knowledgeable with interesting thinking for the children because they are growing up an innovative and rapid era where the children deal with it mentally , physically , socially and emotionally in addition to all influencing environment around which offers benefiting them to the farthest limit.

The educational institutions are doing their best to prepare for the potential development of the children capacities for qualifying the teachers through providing them with full required competencies for outstanding production, as well as focusing on the curricula, learning environments, the methodology and extracurricular activities.

Additionally, the educational institutions develop the children capabilities by starting with various art activities such as: drawing, story, drama and theater, from art activities including handwriting, shapes, and colors, which is the first methods of training and education of children in the early learning stages at kindergarten and primary first stages.

Art is an expression of life and an instrument of the child to express himself besides, it a mean for integrating the child within his culture, it educates the children on intellectual skills, common sense along with creating inside the children desire and love of work plus motivation for production as they are the educator instrument for diagnosis, problem-solving and education as they utilize man's energies at all of his life stages.

Furthermore, numerous writings indicate that art is a well-organized and smooth mysterious depths of man , it is a condition , a sign of human existence and one of the ways people socialize with each other and the way in which people share their feelings .

Moreover, art is utilization of thought and science , as it signifies to us unity of East and West , it is our performance of worship entreating and our ability to control things as we inherited that from the great nations, is human production as clearly shown in pyramids and Petra , it is a poetry of Nizar Qabbani , a voice of Fairouz , Picasso's paintings and Beethoven symphonies and above all it is a human creativity depicting in culture colors, painting , sculpture fabric decorations , textiles, cooking , forms , music, drama , writing , stories , novels , poetry , photography , dancing , architecture and craftsmen.

Actually, we use the word art when we amazed by creative and aesthetic work that started thousands years ago when the human drew forms as such drawings on the walls of caves indicate identity of the man as well as revealing the identity of the nations.

Through the art activities, we work on formulation of outstanding goals for children aesthetic values and artistic sceneries for the environment as a whole, besides; we depict innovative ideas characterized by raw materials of the environment in addition to supporting them with artistic taste and aesthetic values .

Accordingly, self-expression and suppression bring out, as we develop the sentimental art activities and increase the capacity of the child to adapt and acquire the culture and uncover talents and abilities.

Thus, the literatures suggests that frames of art education is based on the artistic vision of things, realism and control of he reaches to the realism as well as the free expression that widens a child's imagination and creations, as well as innovative design that teaches students the basics of planning , design, decoration and painting .

The etymological origin of the word art in Greek means beneficial industrial activity in general whereas (art) in Greece was not limited in poetry, sculpture, music and other industries, but it was also included professions such as: trade, blacksmith, and construction.

Aristotle listed art within production knowledge that deals with things industry including : homes , forts, clothes where Aristotle thinks that art is all the matters which nature fails to achieve as the artist does not repeat what

he sees in nature but he rather modifies , revises them and integrates his dreams and preferences on them .

Aristotle believes that art is instinctive tendency as poetry refers to the propensity of man instinctively to the rhythm and harmony, and that the art part of the simulation of nature and it fulfills the human pleasure about spiritual sense and it is not in secular sense as it is also responded with Aristotle's idea of cleansing and get rid of the emotions of fear.

Art Activity expresses components of civilization and development , it reflects the culture of the peoples, art is a means breeding , and has the ability to education , including the magnitude of the emotional , mental and spiritual support that affects the connoisseurs , all his activities factors intellectual , social , psychological and sensory and working on the composition of the human mind reflecting on his behavior at his community , a student needs to develop his character that needs to be appreciated whereas art based on education through working on the integration of his personality , it is not needed but we add recreational need for intelligence and mental abilities which are considered as a moving force of creativity .

(We cannot imagine a person who can be aware of science entirely without conscious in his study about the art aspects of complementary, besides, we cannot find the artist who was not affected by trends in the various scientific. Therefore, art is complement to science where no man can be a complete picture of the hand of aspects his experience, but if the rest of those around him had passed his experience and solve it with some kind of insight ) Basoni page 69.

The aim of art is to encourage the growth of the individual and the collective and individual of practical experiences that the child needs to satisfy his curiosity about the world in terms of acting and thinking, innovation and achievement of movement and self-expression , thoughts , feelings and capacity development (Karmi, 2010).

Dana Federation of Associations for Art and Awareness conducted a study on seven universities about following up impact of the arts on academic performance and improvement of the performance on the brain, learning and confirmed the initial conclusions on the positive impact of the arts on the brain as the study concludes a report confirms the following:

- 1 - Ability of art to create a high state of motivation improvement of attention, which improves performance and training.
- 2- Declaration about starting genetic studies to determine which genes help explaining individual differences worthwhile art.
- 3 - Existence of certain relationships between levels of training in music and ability to manipulate information in every action and long-term memory that is beyond field of training on the music.

4 - Emerging in children specific relationships between music training and geometric skills and numerical representations.

5 - There is a relationship between music training, acquisition of reading, consecutive learning and development of brain.

6 - Existence of a relationship between acting training and improving memory by learning general skills to deal with semantic information.

7 - Self-learning for adults depends on the mood and openness.

8- Dance learning is associated with monitoring the learning practices and physical training as level of achievement in the arts improves brain capabilities.

The study revealed role of arts training to improve cognitive abilities in children, it also emphasizes importance of dance and training in development of the capacities of the brain all, so that sufficiency watching the dancers alone is considered a successful mechanism in maintaining level of cognitive abilities , neurological and growth areas of the brain.

#### **Problem of the study:**

Educators attempt including theorists, authors of curricula and teaching materials, teachers and even parents in various ways to achieve a viable and recipes included the development and growth of the students by developing mental abilities and achievement.

The study of the factors contributing to the achievement of these goals is considered supportive educational contributions to reach the best performance levels of educational learning.

The art activities is a supporter learning in pre-school stage as well as on the way that are delivering concepts for children and invest their abilities and disclosure of their creations , but they are still used in ways that non-systematic , so it has to be activated and investment benefits in working with children and circulated for grades following , for broadcast of motivation , activity , diversity at work , communication , expression and improving students' abilities in various of academic and personal aspects .

The study provides also more indicators on impact of the activities for various arts such as: drawing, sculpting, shaping, dance, music, theater, stories, drama and representation of the growth for cognitive processes in development of an item's core research in field of education, which aims to develop the capacity of students by providing teachers, environment and suitable and supportive materials.

#### **Questions of the study**

1. Is there an effect of substantive activities on cognitive development of children from 4-9 age groups?

2. Is there a statistical significant difference between males and females in cognitive development among the experimental group in the age group 4-9?

3. Is there any statistical significant differences in cognitive development between levels of classroom studied with the experimental group in the age group 4-9?

#### **Objectives of the Study**

This study aims to reveal importance and impact of the activities of various functional on the child's development of knowledge and processes of mental knowledge through teacher's evaluation after a month of the study included the activities of the art and research in the differences between the impact of these activities on children at different ages of 4-9 years and also the dissimilarities between males and female cognitive about their influence with activities and their impact on the cognitive operations of attention , perception, language and reflection and analysis.

#### **Importance of the study**

The importance of the study confirms the following issues:

- It is considered from the studies that provide facts and rules for those who are responsible about child education including teachers, curricula makers and parents looking for what increases the capacities of the child besides developing his mind and thinking through simple and accessible activities that invest simple environment elements by making them available to everyone.

- It is one of the studies that concerned with mental growth of the child as we always need and desire in supporting of our children's personalities, which are the priorities of parents, teachers and policy makers, who are always looking for guidelines to ensure progress and development of the child by emerging his excellence and abilities.

- The study contributes to the theory of providing material that can be used in dealing with severe educational problems which reduce the students' capabilities as one of the challenges facing the community.

- It improves the ability of students in their performance and achievement besides working out to raise their motivation.

- It increases the teacher's impact and the environment positively on the capabilities, performance of students, their attitudes and achievements.

- It improves the performance of both the student and the teacher along with developing his relationship with his students and in turn between students and their school teachers and thus improve the learning and educational process.

#### **Terms of the study**

**Art Activities** contain all experiences and activities that the children practice in systematic and non-systematic employing their different senses during interaction with

the environment in a fun, a positive and productive way for different aesthetics.

### **Cognitive Development**

It is evolution of different human thought processes which is evident through the advancement of the style of man mentally and cognitively to deal with his surrounding environment. They include every indicator that refers to stages of openness and mental growth.

### **The Study Procedures**

1. Determining which schools that there is a possibility of their female teachers' cooperation in evaluation process for the students where they are at the same time dealing with activities in the first semester of the academic year 2013/2014.
2. Identifying which classrooms that will be subject to the study besides specifying the concerned female teachers for the evaluation.
3. Specifying male and female students for each female teacher in a lot way without referring to any of the capacity or achievement.
4. Training teachers for one theoretical hour on use of the questionnaire as well as on methods of observation and evaluation.
- 5- Giving the teachers a period of time for full month since end of September until end of the month of October for evaluation.
- 6- Collecting and classifying evaluations for both males and females for each classroom and choosing five males and five females for each classroom to be subject to the statistical processing.

### **Theoretical Framework and Previous Studies**

The human growth is changes occur in different personal aspects starting from developmental, physical, social, linguistic and cognitive changes based on what is offered to him from the experiences of supporting any of the interconnected aspects of growth, as the environment plays a leading role in different growth tracks.

Qetami in his study that conducted in 1993(thinks that cognitive development is a change in cognitive structures resulting from the experience, expertise and experience to become a must that the child interacts with its assets).

The studies focus on the growing importance of the training of the senses, which are approaches that we trained our knowledge on them by providing diverse expertise of each sense member.

It is by observing that the children behavior, we notice that they progress through what is offered to them from sensory experiences which make them acquainted with the nature of things that leads them to work and discover components and innovate in their investment, besides identifying the colors , forms and methods of use.

Education provides these experiences always and in all ages, but it intensified them in submission in early childhood, which include preschool and first school years as they cover almost the stages of Piaget's mental development at the second and third terms where Piaget recommends building on the characteristics of this stage mental enriching the child's environment and training to support the growth and evolution of his thinking.

Piaget focused on role of the environment in which he considered it as a mediator or cognitive reactions conducted by the child (Qetami 2000, Page 40).

Piaget's theory is distinguished by its belief in stages in which he divides the growth stages into cognitive stages where each phase has its characteristics and requirements, and characterized by developmental stages of the second and third (pre-physical , and physical processes) with clear advantages as follows:

#### **First, pre-physical processes**

Characterized by a child at this stage in its ability to use symbols, naming things and ask questions. In addition to his control social motives start through his interaction with others supposedly to provide to child as his growth increases the strength of knowledge to identify the stuff and processed them by his senses and thus employing and utilizing them.

The child's ideas started and shown in his ability in expressive or drawing or direct or deferred imitation showing his capabilities on the charts for environment , dreams and aspiration.

However, the drawing shows a lack of ability to understand the ratios between the stuff in size, mass and space, besides it develops with age and it is used with a child drawing method for diagnosis and of mental and treatment measurement as well.

Through the formation of clay the child's abilities developed to control and configuration, both music and chants plays an important role in experiences of the child, which activates the performance, accompanied by music and it is served concepts through educational songs offering for the children different experiences of language ,maths and other knowledge that provide for children at this stage.

#### **Second, the stage of physical processes**

They are characterized by mental process control on performance at this stage than his abilities to learn , control things , understand their characteristics, and the child world's biggest live here its assets and relationships thereby which increases his expertise , capabilities and efficiency.

The child is also able to imitate others and understand the significance of the story as well as express them in his own language and representation.

We use in child's education teaching methodology and activities other than the methodology we employ in his developed capabilities and understanding of thought and expression, such as: drama, theater, music, singing, drawing and story that seems more at this stage, but development of the child does not produce an image or drawing which is identical to the reality.

The child is dying world with his colors and adds to the environment his dreams as he laid down hand writing, colors, and also starts writing that expresses self through hand writing, shape and color.

Imam al-Ghazali confirmed on the importance of giving the young an opportunity to practice many activities after completion of education as the first school in Europe devoted hours for activities and craftworks and recreation, such as a school called love of humanity was founded by Jean Basdow in Germany in 1774, in addition to the first experimental school in Chicago which founded by John Dewey and carried out by education through activities in order to remove the boredom.

We think that art education actually is cultural and educational mediator which provides the child with materials, methods of learning, understanding and drew his attention, expurgation his style and gain aesthetic values and artistic integrate it in the environment and invests his imagination, his ideas and abilities and supports cognitive abilities through a variety of skills as well as revealing their talents along with increasing control over his environment.

Art education helps in formation of personality of the learner, besides building and developing his capacity to imagine, distinguish and perception through artistic expression for self entity and emphasizes his personality and deepening the link with cultural heritage, national, religious and documented them, it also contributes to develop manual skills of the students and benefit them the positions of multiple and active life participation in various aspects of school activities for conveying concepts at different levels of the researches, other topics and approaching them from the minds of learners, through sharing art education and activities (Alhelah, 2008).

According to Dr. Alhelah thinks that art education is a mean and it is not an end to teach the learners during practice.

As the development of appreciation and artistic taste is no longer a luxury but life demands art expertise for the ability to develop an aesthetic taste values spreading at nature leading to improve the standard of living as it is reflected on his appearance, since training the child on tasting creates a cultured citizen who maintains the beauty.

Art requires a strong observation, imagination, memorization, understanding, recognition, conception and recalling past experiences. (Abla1999).

Art activities of educational media are considered used by the teacher for playing a major role in process of

teaching and learning. They are classified according to the type of sensory receptor educational message, there are visual aids, audio visual and hearing, which are considered an instrument for teacher to deliver and verification the information.

Brides fabricating doll provides an idea borne by it besides drawing the nature by its characteristics, artistic expression, art sentences and music that supports innovation, it urges the child to experiment, exploration and express themselves as the music improved expression of thoughts, feelings as well as helping the child to participate and Sympathize with the feelings of others. (Qandeel & Badawi, 2003, Page 308).

Sainsbury 2009 in his study talks about importance of the arts in learning, health, conflict resolution which helps in dealing with psychological shocks, communication, experience in addition to improving the suffering; it is a source of inspiration, humanity, and it. The study emphasizes the Article 13 of the Convention on the Rights of the Child to engage in playing and participating freely in cultural life and the arts. Moreover, Sainsbury confirms importance of art and its effectiveness in helping children to understand the context, content and comprehending easily, besides, the study assures role of art in helping growth of the child, particularly his compassion and the ability to identify feelings and express them and reading the feelings of others.

Malchiodi 2005 thinks that each individual has a unique ability in vision, touch or hearing.... as those who are around him should that take this ability into account because its psychological effective treatment and improve the capabilities of the children creative and improve the outcomes and the development of social skills and behavior problem solving, reducing anxiety by using drama therapy in the recruitment stage to alleviate the symptoms of disease and to achieve integration of emotional, physical, personal, and increase flexibility, it also uses dancing for treatment of movement as well as reducing the negative energy and discharging capacities in sentiment, either types of literature of poetry, prose that has its role seriously in personal growth which does not exclude the play therapy as a way of systematically problems solving of children as treatment with the sand worked to make the child more able to explore the deeper layers of the self and improving mental state.

Art is a multi-modal approach promotes awareness and encourages various aspects of growth along with conveying aspects of the culture of the people besides providing ways for people to express and communicate.

Solso (1997) mentioned the most global paintings and creativity in making them, in addition to their ability to influence the importance of art in the world and its significance in their capabilities, mental visualization

and additions that we add to our capabilities for development through the arts and focus on them.

### Previous studies

Khattar Study 2011 ( Aesthetic education and trends of students and teachers of the first episode at the stage of basic education), which aims to recognize \reality of aesthetic education art , music and identifying the difficulties and problems experienced by the reality of the current application where the researcher developed basics for students , teachers for establishing a program that includes two units education aesthetic seminars, art education unit and other musical that has been designed for evaluating the performance of teachers of aesthetic education art and music by application and afterwards, the researcher selected a stratified random sample of students first of ( 1200) study members and another sample consisting from (60) teachers of art education , and a third sample consisting from(35) from the music education teachers .

The researcher adopted a descriptive analytical method as his study findings concluded, besides improving the performance of teachers. The researcher recommends considering the aesthetic dimension and focus on the creative and expressive approach and reconsideration approaches about art and music. (Khattar, 2011).

Alshheri Study 2007 aimed to find out the implications of the colors used in the lessons of art education at the middle school students in Riyadh, recognizing the color preferred by the students. By identifying the implications of the colors used by the students, what does each color mean to them? What is the psychological significance for each colour? This study is limited to intermediate school students in Riyadh Region 1422-1423

As this study is based on the descriptive and analytical descriptive approach whereby questioning where they are all members of the sample in order to describe the studied phenomena for its application on the degree of their presence, then categorized and analyzed it to some conclusions that contribute to the understanding of its reality.

The sample of the study consisted of 1,500 students who were selected randomly among all students aged between 13-16 years. The researcher used a questionnaire prepared by him which consists of two parts: 1 - Asking respondents about eight colors and what does each color mean to them? The researcher used (No. 1) to denote positive and No. (2) to denote negative, while the second part is a specific question asked members to choose one favorite color and loved by them better than anyone else and that within eight colors have been identified eight colors by the researcher , ( 1352 ) questionnaires were collected from all respondents in percentage of 90% .

The researcher concluded that, power, energy and love of the connotations that gather a majority of respondents

are red color. The sample chose blue color with (93%) percentage as the first position in terms of preference, as this color symbolizes to them representing the meaning of stability, calmness, space and sea. The third choice of the sample was black as the proportion of beneficiaries of respondents in favor of connotation is (2) with 54 % percentage as the black color symbolizes to them meaning of negativity such as: Fear, mystery, death and evil where the black color of the eight colors , which was chosen by a majority of respondents to the connotation (2) while connotation (1) means strength , elegance and wisdom, additionally, the colors purple, orange at the last of the list of preference and occupied the straight entirely positive connotations (1) means luxury , loneliness and wisdom for the color purple , and energy , balance , warmth and enthusiasm for the color orange , either negative connotations (2) means a mystery , cruelty , arrogance , sadness for the purple color ,hesitation and overdoing and drawing attention for the orange color .

The researcher also suggested a number of the most important recommendations including the following: A need for giving the students an opportunity to use colors freely to express their feelings and their thoughts .The teacher of art education has to exceed his interests when assessing the work of students of art focusing on the outputs of art in terms of skill and aesthetic only seen signs of symbols and colors , as a way to achieve self-discipline , individual and social development , the a teacher of art education has to accept the ideas of students associated with the significance of the used colors and modified pervert instead of suppressing and irrepressible them.

Aldhowehi Study 2006 entitled (Role of art and art education in shaping the culture of the Arab Child) which aimed to study needs of the child and the educational and teaching methodology taken from scientists and the scholars since long time.

The topic concerning (Culture of the child) and the role of art and art education that did not take its chance in the Arab world and the main objective of this research traces the studies in this field in addition to discussing and proposing better ways and methods for formation of the culture of the child.... The researcher selected descriptive and inductive approach as he used methods the play of the child through representation and speed of thought and expression, speech quality, good performance, audacity to express an opinion, use of traditional songs , music business, social and national songs .

The researcher concluded that process of art is not visual, but it includes other elements of emotional, aesthetic and emotional and intellectual elements whereas the creative ability that the child has a great role in development of various fields.

Art is considered a universal language that facilitates the communication among people.

The researcher recommended necessity for art education as well as reviewing its content at the schools with help of experts from other Arab countries along with encouraging activities of the arts including descriptive audio-visual and performance today containing visual imaging, patriotic songs and folk dances, besides exploitation of many holidays time to practice art activities and specifying one week by Ministry of Cultural allocated for Arab children programmed for cultural activities

Allamoud Study 2001, which aimed to define concept of art education based on social environment and their role in the environment besides confirming the link service issues. The researcher used the descriptive documentary approach as the researcher used the literary researches. The researcher depicted a clear idea of concept for direction of art education based on the social environment where he stressed that the environment is the foundation stone at the beginning of launch direction which enables the researcher to link properties of aspects of the direction of teachers, students about the advantages of different aspects trends during development of the relationship between students and the social environment as it is a real world in all its details for people, places and events and it is based on the interaction between individuals and society.

- Art education trend is based on creativity and opening thinking and skills to share with other approaches which help children who are suffering from problems and difficulties as it strengthens the relationship between the learners and determining their identity to achieve their goal in their community. The researcher recommends that Ministry of Education has to concentrate on the scientific research of the special education professional besides establishing a strong relationship between the school and the community with giving attention to art education by connecting them with other approaches along with creating a place for students to express themselves which help the learners to build their characters where they have to be allowed for students to present their experiences in front of the community which gives them a chance to correct their mistakes.

Helena Aletta Study entitled (Benefits of the Arts In Kindergarten) 2008. This study emphasizes importance of drawing, dance, drama, theater, visual arts and their impact and lists the effects of the arts for children and working on access to multiple intelligences, developing higher thinking skills and building self-confidence, strengthen the motivation to learn which confirms importance of bringing art early where the children have the requirements of the art spontaneity, imagination, play, exploration, motivation, activity, freedom of expression and the ability to learn. The study also confirms importance of integrating art into the school curricula of the early childhood and the use of suitable materials for child's development and skills expression. The study indicates that environment with all its elements is third educator for the child.

Furthermore, art allows children to explore their creativity, which is instrumental in the remaining areas of life and making them appreciating and estimating the beauty.

Bonsr and Others Study in 2004. This study aims to track impact of arts training on cognitive processes where it revealed the positive influence on development of the art of attention and motivation cognition.

Jazanego Study 2004 (Learning, Art, and the brain) in which he worked on brain imaging, as it shows impact of art training in improving attention and motivating children for improving ability of neurotransmitters.

Johndz Study 2004 entitled (Musical Skills and Cognition). This study discussed effect of music training on memory skills; it also concluded the ability of music training and representation strategies to improve the cognitive system to maintain memory hidden contents.

The researcher used magnetic resonance for imaging of brain activity. The study also revealed impact of music and musician's intellectual capabilities and their ability to memorization, recalling, repetition and remembering the words.

Sbelka Study 2004 entitled "Effect of music in improving the cognitive abilities and system, math and sciences at Harvard University". The study discussed effect of training in music, dance, theater, creative writing and visual arts to computing capacity with 85 children and adolescents aged between (5-17), the study results revealed impact of training music to improve performance in mathematics, engineering, and improving the representation space of the brain, science and music training improves the basic functions of the brain and the ability to learn and grasp the knowledge and the development of knowledge systems in foundations of mathematics, science and understanding of nature and engineering maps. The study results proved brain imaging career in children and adults and it improves athletic performance, spatial representation system and learning the meanings of words, logic and mechanical properties of objects, symbolic order and mastering the logical properties of the account system engineering, counting, understanding maps and mastering math and science.

Study Brian, Ansel and others in 2004 at Stanford University. This study revealed evidence of a relationship between the capacity of the brain capabilities of readers through brain imaging and tracking of networks of cells in the brain and axons. The study also examines ability of arts education on development of reading skills and fluency in reading and improving the mood, besides it studied the importance of visual arts, music, dance, drama, theater and impact of school learning. It also indicated ability of training on these art activities in acquisition of the aesthetics of the child which improves mood, exploration and sensory perception in addition to the ability to learn reading and maths.

Michelle MarderKamhi Study entitled (Art and Cognition) 2000. This study emphasizes the relationship between art

and perception with cognitive processes as it forms a unique world with great perception which plays an important role in emotions as well as strengthening the element of fantasy, besides the art is embodiment of reality which makes senses active and attentive and linking it with the imagination for all its dreams or ideas.

Connie Hine Study 1996 as this study discusses development of multiple intelligences in young learners based on the theory of Gardner, and expanded to explain ways to develop multiple intelligences in children by providing activities of the evolution of each of these intelligences are as follows:

Developing linguistic intelligence following activities through fresh words and influential writing or talking about games and reading or listening to stories , poetry besides logical-mathematical development through imagination , expectation , sequence and use of games with the rules , while development of intelligence musician through all the musical activities that include listening , enjoying singing , playing games , trilling , playing with his music, rhythms , notes and songs through developing visual spatial intelligence through images and graphic three-dimensional imagination and creating mental images , maps , videos, photos , charts , posters and decking either intelligence bodywork motor it is through the expression of feelings , dance, movement and harmony between mind, body and drama theater , diction , rhetoric , and development of intelligence by meditation , imagination , concentration , play , biogenic , painting , dance , development of intelligence among the people by using collective participation in playing different activities , theater and tradition , it also confirms that the activities provide for the child is the main supporter for detection and development of his intelligences .

Elden, etal. Study, 1980 conducted on 351 students at the secondary level indicated that participation in school activities enhances positive trend toward value of work which has a positive impact on the school achievement.

## **METHODOLOGY OF THE STUDY**

### **Population of the Study**

The population of the study consisted of all male and female students at public schools in Amman 1<sup>st</sup> Directorate of education and Private education in the academic year 2013/2014.

The sample of the study consisted of 200 male and female students for both the experimental and control groups from the grades from KG2-third grade.

### **Procedures of the Study**

The participants of the study were divided into two groups, experimental and control: The participants of the

experimental group were exposed to artistry activities during the teaching-learning process in order to support the growth of the children and their skills and cognitive abilities for (8) weeks, While the participants of the control group were not exposed to any kind of activities for the same period.

The researcher did the following:

- Selected the schools.
- Ensured the validity and reliability of the instrument of the study.
- The researcher conducted the study with the help of the teachers of English language in the selected schools.
- Applied the instrument of the study.
- Used SPSS to analyze the collected data.

### **The Study Instrument**

The researcher developed an instrument to measure the positive thinking which consisted of (70) paragraph where the teacher has to select and estimate the behavior of the student.

### **Instrument validity**

Arbitrators' validity method is processed thorough presenting the items of the scale to eight which were reviewed by university professors who specialize in educational psychology and some paragraphs were modified besides taking the views of the professors into account for producing the scale in its final image.

### **The Instrument Constancy**

To make sure of the consistency of study instrument, it has been verified in a manner of testing and re-testing (test-retest) the application of the test, and re-apply after two weeks on a group of outside study sample consisting of ( ), and then calculated Pearson correlation coefficient between their estimates on both occasions where the (0.85), was also calculate the consistency coefficient manner the internal consistency by Cronbach's alpha equation, if reached (0.81), as these values are considered appropriate for purposes of this study.



**Table (1)** Reoccurrence and percentages according to the study variables

	<b>Categories</b>	<b>Reoccurrence</b>	<b>Percentage</b>
The Group	Experimental	100	50.0
	Control	100	50.0
Gender	Male	100	50.0
	Female	100	50.0
Class	kg1	40	20.0
	Kg2	40	20.0
	First	40	20.0
	Second	40	20.0
	Third	40	20.0
	The Total	200	100.0

**Table (2):** Arithmetic Means and standard deviations were computed and modified for performance of the study sample on a scale of cognitive development of children in 4-9 age groups.

<b>Categories</b>	<b>Previous</b>		<b>Dimensional</b>		<b>The Modified Arithmetic Mean</b>	<b>Numbers</b>
	<b>Arithmetic Means</b>	<b>Standard Deviation</b>	<b>Arithmetic Means</b>	<b>Standard Deviation</b>		
	Experimental	25.09	11.589	40.02		
Control	24.95	11.558	27.02	11.319	27.07	100
The Total	25.02	11.545	33.52	14.082	33.52	200

**Table (3)** Analysis of variance associated with the effect of teaching method on the performance of the study sample on a scale of cognitive development of children in the age group 4-9

<b>Source</b>	<b>Sum of Squares</b>	<b>Degrees of Freedom</b>	<b>Squares Average</b>	<b>"F" Value</b>	<b>Statistical Significance</b>
Previous (Associated)	15773.270	1	15773.270	203.911	.000
The Method	8309.918	1	8309.918	107.428	.000
The Error	15238.650	197	77.354		
The Total	39461.920	199			

**Table (4):** Means and standard deviations and "T" Test depending on the gender variable on performance of the experimental group (Artistic Activities) on a scale of cognitive development

	Group	Number	Arithmetic Means	Standard Deviation	"F" Value	Degrees of Freedom	Statistical Significance
Dimensional	Male	50	39.66	14.00	-.263	98	.793
	Femal	50	40.38	13.33			

**Table (5):** Arithmetical means and standard deviations for the performance of the experimental group (artistic activities) on a scale of cognitive development by grade level

Categories	The Number	Arithmetical Means	Standard Deviations
KG1	20	42.15	14.82
KG2	20	43.75	12.55
First Grade	20	48.60	13.07
Second Grade	20	33.88	7.84
Third Grade	20	31.80	12.09
The Total	100	40.02	13.61

**Results and Discussion of the Study**

**The First Question: What is impact of technical activities on cognitive development of children in the 4-9 age groups?**

To answer this question arithmetic means and standard deviations were computed and modified for performance of the study sample on a scale of cognitive development of children in 4-9 age groups, and the table below illustrates these findings.

Table (2) shows variation in arithmetic means, standard deviations and the modified averages for performance of the study sample on a scale of cognitive development of children in 4-9 age group which indicates statistical significance Analysis of variance associated on the effect of teaching method on the performance of the study sample on a scale of cognitive development of children in the age group 4-9.

Table (3) indicates presence of statistical significant differences ( $\alpha = 0.05$ ) due to impact of the learning mode, where the value in terms of statistical is 107.428 and 0.000, and the differences were in favor of the experimental method.

**The Second Question: Is there any statistical significant difference between males and females in cognitive development in a range of artistic activities?**

To answer this question arithmetical means and standard deviations were computed for performance of experimental group (Artistic Activities) on a scale of cognitive development by variable gender which indicates statistical differences between the averages "T" test was used as illustrated at the table below.

The table 4 shows lack of statistical significant differences ( $\alpha = 0.05$ ) due to the gender variable, as "F"

**Table (6):** Analysis of single variance for classroom performance of the experimental group (Artistic Activities) on a scale of cognitive development

Source	Total of Squares	Degrees of Freedom	Squares Average	"F" Value	Statistical Significance
Between the Groups	3966.460	4	991.615	6.559	.000
Inside the Groups	14361.500	95	151.174		
The Total	18327.960	99			

**Table (7):** Dimensional oral comparisons for Classroom Level

	Arithmetical Means	KG1	KG2	First Grade	Second Grade	Third Grade
KG1	42.15					
KG2	43.75	-1.60				
First Grade	48.60	-6.45	-4.85			
Second Grade	33.80	8.35	9.95	* 14.80		
Third Grade	31.80	10.35	11.95	* 16.80	2.00	

\* Function at level of significance ( $\alpha = 0.05$ ).

value is -0.263 0.793, and in terms of statistical significance is 0.793.

### Third Question: Is there any statistical significant difference between levels of studied classroom in cognitive development in a range of technical activities (Experimental)?

To answer this question arithmetical means and standard deviations were computed for performance of the experimental group (artistic activities) on a scale of cognitive development by variable grade level, and the table below illustrates this.

Table (5) shows clear variation in arithmetic mean and standard deviations for performance of the experimental group (Artistic Activities) on a scale of cognitive development due to different categories of variable grade level, for statistical differences clarification between arithmetic means, analysis of single variance is used as illustrated at table (6).

Table (6) indicates presence of statistical significant differences at level of significance ( $\alpha = 0.05$ ) attributable to level of the classroom, for clarifying differences between statistical averages dimensional oral comparisons are used as shown in table (7).

Table (7) indicates a presence of statistical significant differences ( $\alpha = 0.05$ ) between first grade from one side

and between each of the second and third grades on the other side, the differences were in favor of the first grade.

## RECOMMENDATIONS

The study recommends based on its findings mentioned previously giving an importance to include artistic activities in learning and educational process where it is necessary to train teachers as well raise their competence to work on inclusion and investment of artistic activities which are appropriate for students in terms of their age and interests in teaching mythologies, explanation and evaluation techniques as these activities have real impact outputs on the students achievements and abilities as well as improving the learning process through transition of experience to them in a lovely and joyful way in which the child practices artwork and crafts employing his senses, potential and cognitive abilities in action, expression, communication where the teacher has confidence on capabilities for all of his students for learning and gaining knowledge commensurate with their intellectual thinking.

As the students practice positive atmospheres which stimulate their motivation and developing creativity in which both the teacher and the student work together for looking to all positives and strengths of the student as the teacher utilizes all of his active efforts and energies in the learning process and from the second aspect, the student employs all of his talents and abilities towards learning.

Consequently, for more effective activities, it is necessary to include them inside the classroom in the discussion and evaluation, which creates activities, superiority and achievement among the students where such practices shall encourage the students positively in participation, work and continuation.

The researcher recommends the importance for child care and revealing their creations, besides including artistry activities in their daily schedule within the curriculum at actual lesson periods which enable the students to practice the arts in all their forms,, enriching the children environments to the maximum to the possible extent, allowing them freedom of choice and work that has a deep impact in supporting growth of the child and his different abilities for development of cognitive processes besides his psychological growing up as well as qualifying the teachers to provide the skills necessary for practice of the arts in the classroom along with educating parents about the importance of art and its positive effects on children's abilities.

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## The Study Instrument

In the name of God the Merciful, the Compassionate  
Respectful Teacher,

The researcher would like to reveal through the following scale some important artistry activities in support of growth and cognitive development in children, I hope kindly from you to contribute in evaluating the student's behavior in each of the following paragraph.

Best Regards

The Researcher

Dr. Neveen Abu Ziad

	The Paragraph	Yes	No
1-	Is the child's language is good?		
2-	Does the child pay attention to his teacher?		
3-	Does the child pay attention to his classmates?		
4-	Does the child participate and engage in classroom activities?		
5-	Does the child recognize the colors?		
6-	Does the child distinguish between the colors?		
7-	Does the child express himself clearly?		
8-	Are the child questions and inquiries increasing?		
9-	Does the child talk about his work production?		
10-	Does the child talk about his capabilities?		
11-	Does the child have confidence in himself?		
12-	Are the child activities increasing?		
13-	Does the child discuss Does the child?		
14-	Do the child interests develop significantly?		
15-	Does the child recognize the shapes?		
16-	Does the child realize the extent of his mastery of the activity		
17-	Does the child know his capabilities?		
18-	Does the child feel enjoyment at the classroom?		
19-	Does the child talk while he engages at the classroom activities?		
20-	Does the child learn some forms of production from his classmate?		
21-	Is the child integrated in classroom activities?		
22-	Does the child choose the lovely activity?		
23-	Does the child help in educating his skills to other children?		
24-	Does the child practice drawing alone?		
25-	Does the child's drawing develop weekly?		
26-	Does the child show more details in his drawing alone?		
27-	Does the child know the difference between fiction and realism?		
28-	Does the child know meaning of the theater?		
29-	Does the child know meaning of the role?		
30-	Does the child know consequences of each role change?		
31-	Does the child show more details in his work after training?		
32-	Does the child imitate people at random?		
33-	Does the child show interests of the classroom and its colors?		
34-	Does the child talk about the child his drawings?		
35-	Does the child paint realistically?		
36-	Does the child draw from his imagination?		
37-	Does the child use the colors?		
38-	Does the child repeat his drawings?		
39-	Does the child add in his drawings some details to reality?		
40-	Does the child include stories that he expressed in paintings?		
41-	Does the child remember certain stories?		
42-	Does the child imagine any events?		
43-	Does the child suppose some fictional events?		
44-	Does the child vocabulary develop clearly?		
45-	Does the child talk about some of his experiences at a story time?		
46-	Does the child use the words of the story?		
47-	Does the child acquire the words of the story?		
48-	Does the child ask about some of the words and phrases?		
49-	Does the child repeat the words of the story?		
50-	Does the child repeat the events of the story in his own words?		
51-	Does the child perform roles of the characters of the story?		
52-	Does the child add to these roles?		
53-	Does the child come up to the idea of the story?		
54-	Does the child discuss the significance of the story?		
55-	Is the child integrated in the theater?		
56-	Does the child like plays performance?		
57-	Does the child ask to act in plays at the theater?		
58-	Does the child add words and phrases from his own ideas?		
59-	Does the child incarnate the characters?		
60-	Does the child add more details of his ideas for his role in the story or play?		
61-	Does the child add more details of his ideas for the other roles?		
62-	Does the child's vocabulary develop?		
63-	Does the child understand his role?		
64-	Does the child respect his role?		
65-	Does the child respect other role?		
66-	Does the child come up to the significance of the play?		
67-	Does the child analyze the statements?		
68-	Does the child evaluate the roles?		
69-	Does the child realize concepts of good, evil?		
70-	Does the child organize new statements?		