

## The effect of Educational plays in the Development of Sensory Motor Skills of Kindergarten Children (4-6) years.

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### ملخص الدراسة :

هدفت هذه الدراسة إلى التعرف على مدى تأثير الألعاب التربوية في تطوير المهارات الحسية الحركية لدى أطفال الروضة (4-6) سنوات ، ولتحقيق أهداف هذه الدراسة قام الباحث باستخدام المنهج التجريبي على مجموعتين تجريبية و ضابطة شملت (30) طفلا و طفلة الممثلة لعينة الدراسة ، و تمت المعالجة الإحصائية كنسب مئوية و المتوسطات الحسابية و اختبارات). وأشارت نتائج هذه الدراسة إلى تطور ملحوظ للمهارات الحسية الحركية الذي يعزى للألعاب التربوية، مع وجود فروق ذات دلالة إحصائية بين المجموعتين الذي يمس جميع المتغيرات و لصالح المجموعة التجريبية .  
**الكلمات الدالة :** الألعاب التربوية، المهارة الحسية الحركية، طفل الروضة (4-6) سنوات.

### Summary:

The study intended to define how much the educational plays effect the development of the sensory motor skills of kindergarten children (4-6) years. To do that, the researcher used the empirical research method on two groups: an experimental group and a control group both included 30 children whom are the study sample. The statistical processing was done including the percentages, the mathematical averages, and the tests.

The results of this study have shown us that there is a significant improvement in the sensory motor skills of these children thanks to the educational plays, however there are some significant differences between the two groups concerning the variables in favor of the experimental group. It is recommended to use these suggested games for this age of all kindergarten children.

**Keywords:** Educational plays, Sensory motor skills, kindergarten children.

### Introduction:

The early childhood is considered to be the base that draws the lines of the child's life in the future, therefore both education scientists and psychologists see it as the most important component in the construction of the individual's personality. A group of experiences that the child is exposed to, can construct his behaviors and fix them using his own experience before the appearance of his special skill, that's why we should take good care of this important period,

study it and understand its characteristics so that we can influence the behavior of the child later and guide him with the values and standards of the society.

Nowadays, educational researchers give us the newest ways and methods which are discovered in the results of the specialized studies based on a package of field researches and science. Educators can define – through these field researches – the mobility needs of the child as well as his demands, and this can pave the way to the augmentation of the child's skill in the aspects of motor activity.

As it is recognized, the educational activities became more and more like principles in the kindergarten, principles that are based on using different activities methods to give the child a complete improvement, which include many abilities: physical, mental and social abilities, basically it is referred to available natural psychological motor possibilities which have as a goal to realize the motor and physical amenity, sensory motor apprehension and improve his abilities, and augment his automotives.

Educational games are connected to the new concepts of sports education. It is considered as one of the basic connections between the education and the sports education, because teaching the child in this period requires motor skills based on scientific bases, as well as raising him to adjust with himself and his environment.

Motor education occupies an important place in the field of raising kindergarten children. The development of the child's movement and cognitive functions provides opportunities for him to develop experiences related to the development of his mental and sensory abilities, which are mainly related to the development of cognitive abilities, and are very important in the development of motor skills that have a significant impact on the child's motor performance.

The movement is one of the components of the child's life, and it determines the child's cognitive, sensory and motor abilities. Therefore, it is necessary to emphasize the importance of the role of psycho-motor education because it is fully aware of the integration and close association between the basic movements and complementary movements, (Performance) and child development, and between advanced and early knowledge of the surrounding world, as well, It also acts as a movement in all its images based on scientific foundations, starting from observing the behavior of the child to help him solve his own problems through movement and physical experience. Therefore, she

tries to establish a dialogue with the child to put him in front of himself and allow him to gain his experiences freely and without forcing or coercion.

The child gains some new movements and information through his guidance while doing the different activities of educational games in the kindergarten. These movements and information grows more and more by the accumulation of his experiences and knowledge which are practically exercised through his body and different senses. We can see – in this period – that he needs someone who can organize that for him, as important as it is the gratification of the child's desires and needs, organizing his behavior is also important because his self-control is weak, however we shouldn't stop him by force, we should amplify his need to move through organized and purposeful educational plays.

### 1- Problematic study :

Playing is considered as one of the basic sociological systems, which is connected to the civilizations since forever, but nowadays, it is seen as a form of one's civilized behavior. Sports scientists assure that playing has a big importance in social life especially when it is organized and bordered to what is called now as the educational games, so playing is one of the most important activities that builds the child's personality and the child can – through playing – realize his apprehensions and conceptions of himself and his family, and also express his feelings towards others while playing, that's why Gross assure that (playing is preparing the child to the real work of his future life)<sup>1</sup>.

Motor activity is one of the playing forms that demands a The researcher, through his reading and analyzing the studies and theoretical researches.

And from the types of education that the child is exposed to in the kindergarten, we can see the motor education which is education through movements, it is a new way that appeared recently to expand the number of types of the education acquired through learning with experience and different activities.

To find an evolutionary formula to the classic **educational** methods to be more effective in education considering the used programs to form the child and to develop his inner skills, and his practice of the different activities that he try – through them – to find his own solutions to his motor problems which will be treated positively the most possible way. It is also a necessity to discover a new ways to help the child to gain more opportunities to obtain motor activities experiences so he can mentally be influenced positively and physically with his sensory motor skills through educational games that express the characteristics of physical and motor development and skill. The child's motor development depends on his physical growth and is related to his perception, characterized

by instability and continuous activity. His movements are characterized by extreme intensity, responsiveness and diversity. Most educators agree that the period between 4 and 6 years is the most fertile period for learning basic motor skills, which is the basis of motor performance. The acquisition of new motor skills also helps develop and enhance the child's sensory perception.

**1)-Allawi Mohamed Hasan** : psychology in the physical education, copy 01, Book centre for publishing, Cairo,1998, p69.

The sports activities of the kindergarten child are just a practical exercising, its results appears in the practical motor performance which needs effective educational games to improve the sensory motor skills of the kindergarten child. To expand this subject, we had to ask these questions:

**The general question:**

Is there a positive relation between playing educational games and the improvement of sensory motor skills of the kindergarten children?

**Sub-questions :**

- Are there some individual differences between the kindergarten children who play educational games and those who don't, concerning the Motor performance?
- Are there some individual differences between the kindergarten children who play educational games and those who don't, concerning the Motor sensory perception?

**2- Hypothesis of the study:**

**Main hypothesis:**

There is a positive relation between playing educational games and the improvement of sensory motor skills of the kindergarten children.

**First partial hypothesis:**

There are some individual differences between the experimental group and the control group in favor of the experimental group of the study sample, concerning some specific dimensions of the Motor performance of the kindergarten children?

There are some significant differences between the two groups concerning the variables in favor of the experimental group

**Second partial hypothesis:**

There are some individual differences between the experimental group and the control group in favor of the experimental group of the study sample, concerning some specific dimensions of the Motor sensory perception of the kindergarten children?

### 3- Goals of the study :

The study goals are:

- Defining the type of relation between the educational games and the sensory motor skills of the kindergarten child.
- Showing the importance of playing different educational games in the improvement of some of the motor abilities of the kindergarten child.
- Awareness raising of the impacts of the positive impacts of the psychological motor educational games programs in the construction of the kindergarten child's personality.
- Drawing the attention of educators and supervisors to the importance of caring about the sensory motor part of the kindergarten children.

### 4- Concepts of the study:

**Educational games:** it is the group of motor activities done by the child in the kindergarten to realize some educational goals.

**Sensory motor skill:** it is the ability of the child to create a complete state between his own movement and the influences created from the motor games and exercises.

**Kindergarten child:** he is the child who belongs to a kindergarten of the age period (4-6).

### 5- Previous studies:

There are a lots of studies that cared about the influence of the educational activities in the sensory motor skill of the child, as we can see that clearly in many studies such as:

**5-1-Study of the researcher Abd- ELAZIZ ABD ELKARIM ELMOSTAFA:** Riyadh University,1994,Under the title :The Effect of the motor activity in developing the sensory abilities Children of Five years old.

This study aims to know the effect of the motor training activity in developing the sensory perception abilities for children of five years old, through engaging the children in a motor program cares about developing their sensory abilities, which include (The stability of the size of things, total and partial the visual perception, knowing human body's parts, Discrimination between human body's parts, Balance location determination). And knowing too the children sensory motor abilities, then classify the children who suffer from some of under development cases or sensory motor disability, Moreover, there was a study on a sample consists of 80 child, they have been chosen randomly from castern regions aged between 5-6 years old. The sample has been devided into two groups (Experimental directed )to 40 child for each group.

The result of this study shows that there are differences, which have statistical indication in the sensory-motor perception abilities for the children of the experimental group that practiced the motor activity, whereas children of the directed group that did not participated in the motor activity shows a weakness in the abilities. In addition to that, this study pointed out to the clarity of the positive effect to the training program. that was subjected to develop sensory motor perception abilities. also, the researcher recommended to the importance to satisfy the motor needs of children within pre-primary and primary stages, and add motor education module in the educational program for both stages, so that to discover children physical problems (weakness of hearing, sight) in the early stages of their lives.

**5-2-Study of the researcher Tariq El-badri: Baghdad university, (2002) entitled:** the effect of a proposed program in a motor education on developing some of the essential motor skills and physical attributes pre-school children (from 04 to 05 years old).

-The aim of this study is knowing how much the motor educational program influences the development of the essential motor skills and the physical qualities for pre-schooling children (04-05years old).

-This study clarifies that its results this proposed program for pre-schooling children is effective, and this last was applied through physical education lessons, which make it clear that there is no exist to moral differences between the near and the far measures in the directed group. Although, this study shows that the traditional program in kindergarten is not effective, and so that there are many differences, which have moral significance in the near and far measures for the experimental group. in all the research variables. As a result, the proposed program on the experimental group is effective.

-Under the light of these results, it shows that this proposed program on the motor-education has a positive effect on developing the essential motor skills and some of the applicable physical abilities on the experimental group. the researcher emphasis to take care of children(04-05 years old)through physical education lessons. In addition to that, provide some materials for pre-schooling children.

**5-3-Study of the researcher El-malaà Chahad: Algiers university, (2004) Entitled:** A proposed program in the physical education to develop the mental capacity and the sensory-motor perception for (04-05) years old children.

The result of this study shows that there are statistical differences between groups of children

To the group,

Which has participated in the motor (physical) activity, whereas the group that has not participated showed a weakness in their abilities comparing to the experimental group. She recommends that it is necessary to satisfy the needs of children in pre-primary and primary stages, and include a program on the physical education in the two last phases, so that they can discover the physical disabilities for the children (weakness of hearing and sight).

**6-Strategies of the practical study:**

-The methodology: Problem statement is statement is based on how the educational games influence the development of the sensory-motor capacities for kinder garden children. So, this type of study should be based on an experimental approach.

-Where the research carried out: centers of kindergartens of children, M’sila .

-Research sample: we have chosen a group of children from the large category in a kinder garden of “El-Jil El-jadid” randomly, and it includes (30) children (girls and boys).

-Survey: In order to adjust the variables precisely in the primarily study, and to know the truthfulness and relevance ranges for the used tests in this research (Motor performance test, and sensory-motor perception test).we have to do a survey, exactly before the end of the first semester for the scholar year 2013/2014. we have applied both previous tests on a group of children consists of (10) members. As a result, we can stop on the changes and the weakness that are possibly happen in the final application for both tests.

**Research tools:**

. Holeprok test for the motor performance .

. Daiton test for the sensory –motor perception.

Truth fullness and stability of the tests: we have calculate the tests truthfulness using (s q r t) of the stability coefficient for both as it is shown in table below:

**Table(1): Truthfulness and stability coefficients for both tests.**

Linking coefficient Tests	Stability coefficients	Truthfulness coefficients
Motor performance	0.90	0.95
Sensory –motor perception	0.81      0.81	0.90

**7-View and Analysis of the Results:**

**Table (2): Shows the differences between the experimental and the directed groups to the previous sample for the motor performance in the near measures.**

Group Test	Experimental N=15		Directed N=15		Value (T)
	M1	S1	M2	S2	
Motor-performance	6.53	1.76	6.57	1.08	1.49

**"T" in the level of (0.05)=2.02**

**α =0.05**

-Through the comparison of the groups performance in the near and far measures, using the "T" test, we have make sure that both groups "experimental and directed " are equivalent However, the researcher should choose the suitable statistical method to examine the influence of the educational games. in addition to that, the researcher starts to compare the near and far measures for each groups, using the "T" tests, so he can know the development in the motor-performance for the sample members.

-According to table (02), it is clear that there is no existence to any statistical differences between the two groups in the motor performance test (transnational essential motor skills, and control skills). that last points to that: there is an equivalence between both groups before starting this study.

**Table(03): The differences between the experimental and directed group for the sample members in the far measures for the motor performance.**

Group Test	Experimental N=15		Directed N=15		Value (T)
	M1	S1	M2	S2	
Motor-performance	6.74	1.07	6.04	1.89	5.60

**"T" level (0.05)=2.02**

**α=0.05**

We observe from the table above about the multiple difference between the experimental and directed groups that there is a slight difference in the SMA for both groups, determined by 0.70 for the experimental groups. As well as, the value of "T" was (5.60), and it is greater than its value, which is determined by 2.02. As a result to all of that and through the stream of this study, we observe that there is a difference between the two groups in the level of 0.05. This last reflects that there are statistical differences for the experimental group.

-The response of the sample members in the far measures for the motor performance was statistically significant. So, generally the educational games influence the motor performance and essential transitional motor skills like



(running, jumping), and control skills (shooting, sitting than standing up) specifically.

**Table(04): Differences between the experimental group and the direction group for the sample members in the far measures in running, jumping than stability, throwing, sitting than backing up.**

Measures Test	Experimental Group		Directed Group		Value of (T)
	M1	S1	M2	S2	
Running 25m	5.26	0.36	7.17	0.60	10.12
Jumping	0.77	0.45	0.72	0.87	5.31
Thronging a ball	5.72	1.59	5.18	1.64	9.08
Sitting down	10.75	1.34	10.09	1.63	4.75

**=0.05**

**T=(0.05)=2.02α**

-From the table (04) and the Entitled: the differences between the excremental group and the directed group to the sample member in the far measures for the motor performance, there is a difference in the SMA for the two groups. On the other hand, the "T" test to study the differences for the running exam, its value was (10.12) greater than 2.02. About Jumping exam, the result was the same, the value of "T" was (5.31) more than its real value, which is 2.02, Also the throwing exam, the value of "T" was(9.08), greater than its real value that is 2.02. The last not least, concerning the sitting down exam, the calculated value of 'T' was (4.45) more that (2.02). All these results show that there is an existence to statistical differences between the two groups and for the benefit of the experimental group in this test when the level is 0.05.

-It is clear that the differences in the far measures for the four exams is statistically significant, and the results show that the motor performance for running exam(25m) is characterized by a plus in the experimental group rather than the directed ,and so on.

As a result for that educational games in developing the basic transitional skills and controlling movements, have appositive role for the members of the experimental group.

**Table(05): Differences between the experimental group and the directed group for the sample members in the near measures for the sensory-motor reception.**

Group / Test	Experimental N=15		Directed N=15		Value (T)
	M1	S1	M2	S2	
Sensory-motor reception	1.20	0.69	1.20	0.78	0.293

**=0.05                      T=(0.05)=2.02α**

-From the results of this table, we observe that there are no many differences between children in both groups in the near measures for the sensory–motor reception in both the SMA, as well as the standard deviation, where both of them are close to each other. And the difference between the SMA for groups approximately zero(0.01). And we observe too that the calculated “T” 0.293 is less than the “T”(2,02) on the leve (0.05) taking in case that the experimental group in the near measure did not participate in any of the educational games, so it was equivalent to the directed group, which is never practiced the games.

**Table(06):Differences between the experimental and directed groups for the sample members in the measures for sensory-motor reception exam.**

Group / Test	Experimental N=15		Directed N=15		Value (T)
	M1	S1	M2	S2	
Sensory-motor reception	0.87	0.78	0.22	0.69	2.50

**=0.05                      T=(0.05)=2.02α**

-This table shows that there is a difference in the SMA for the two groups for the experimental group comparing to the directed group. Whereas the value of “T” was “2.5”and it is greater than “T” of 2,02. And in the level of 0.05, there are statistical differences between the measures. So as a result. The educational games influence the sensory-motor reception.

-The exercise of the games for the reindergarten children contribute in the development of the sensory-motor reception, it also gives the support to cheer up the sensory-motor skills for children.

**8-Discuss and Analysis of the study conclusions :**

-To confirm the hypothesis of this study, and in which we sepose that there are statistical differences for the sample members in the two groups (experimental and directed), specifically in some of the components of the motor performance.

Where it was clear from the results the “T” test, on the other hand shows too that there are statistical difference between experimental group that its members practice the games and the directed group, which never practice.

-The children of the experimental group mode a remarkable progress in the motor performance

Measured by the exam(throwing, silting down). That means that practicing the educational

games in the kindergarten is important.

In addition to that, the records of the children in the four tests were in its high level, which indicates that these games are very important in developing the basic motor- skills for the kindergarten children.

-And from all of this, and through the stream of this study, our hypothesis is true, which is about the differences in the motor performance through its four aspects and this progress is due to the practice of the different games as it was expected. Moreover we can include “Hocine Ali El-Djabiri” study results in where there were the same tests in a similar study and the members of the experimental group mode a progress in their motor performance like the same tests of our study.

-Concerning the results from the tables for the second hypothesis, and through the “T” test for the differences. The results shows that there are statistical differences between the experimental group and the directed group based on the diatom test for the sensory-motor reception. And from all of this, this hypothesis has been the researcher Chahad El-mala (2004) where the same test was used in a similar study and the members mode positive responses in their motor performance.

The responsible of the educational operation for the kindergarten children took care design the educational program which includes different types of experiences that aims to the integrated growth from all sides. And from these tools we find the sensory motor education and its different programs. Abd-ElAziz Abd-Elkarim Elmostafa (1992) saw that the movement on of the basic motive to the children growth, and through it the child starts to know his environment. It aims to from the child and prepare him to develop his abilities and skills.

### **9-Study results :**

This study comes with these results:

-The development of the motor performance for the experimental group children because of their participation in the educational sport program in the

kindergarten, which confirm the first hypothesis that there are statistical differences between the group which participated in the game and the opposite.

-Strengthen the sensory-motor reception for the experimental group children because of their practice to the education games in the kindergarten what emphasize on the reliability of the second hypothesis that there are statistical differences between the group that participate in the games and there are who does not .

-The influence of the educational games on the children in a positive way.

-The games influence the sensory-motor reception positively inundation to the positive effects on the physical educational psychological and social aspects.

### **10-Study suggestions:**

-Emphasis on the satisfaction for the children on the physical side and take care of their psychological needs.

-Provide the essential suitable element where the child find the chances to practice the motor skills which help to improve the sensory motor efficiency.

-Evaluable the sensory motor growths of the child in the kindergarten, to know the weal nesses in prepare the child to live in his society.

-Improve the children experiences through building programs to develop the motor skills and the abilities to prepare them to face the difficulties of life.

-Making studies to know behavior problems for children and haw to face them, and its importance to prepare children to glob ligation.

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