

THE EFFECT KARPLUS MODEL IN COGNITIVE ACHIEVEMENT AND LEARNING PASSING SKILL IN SOCCER FOR SECONDARY SCHOOL STUDENTS

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ABSTRACT

The importance of the study lies in the effect of Karplus model on In Cognitive Achievement and learning soccer passing in 2nd grade secondary school students. The problem of the research lies in the traditional method used by the physical educator based on command style as well as the lack of attention to the theoretical aspect of physical education. This affected the academic achievement of students hence emerged the need for a more developed teaching strategy; Karplus Model. The research aimed at identifying the effect of using Karplus model on academic achievement and learning soccer passing in 2nd grade secondary school students. The researcher used the experimental method on (30) secondary school students; 10 selected for pilot study, 20 were divided into two groups. The experimental group followed Karplus Model while the controlling group followed the traditional method. The experimental program lasted for eight weeks with two teaching sessions per week for each group. The data was collected and treated using SPSS to conclude the positive effect of using Karplus model on developing academic achievement and learning soccer passing in 2nd grade secondary school students. Finally the researchers recommended benefiting from Karplus model in improving and learning soccer passing.

Keywords: Karplus Model, In Cognitive Achievement, motor learning.

INTRODUCTION

The concept of the modern educational process has become focused on the transfer of the educational process from the teacher to the learner, so the role of the teacher is directed and guided so that the activity of his pupils directs guidance that they can rely on themselves to facilitate the learning process, by making the learner a vital and effective element which affects the level of performance.

The educational models have an important role in the acquisition of skills and their development, and the level

of technical performance of any mathematical skill is related to how it is learned and the level of learners, and the educational process has developed a wide and significant development in our modern era through the use of various learning models which can have a significant impact to bring the learner to a level My skill is better, and I did a lot of research that sought to find the methods, theories, and models that affect the learning process

Regarding the learning cycle model, the initial conception of this model was developed by (Atken and Karpels) in 1962, relying on that to some constructive

ideas derived from the knowledge of the theory of cognitive development for Piaget, but Carbels and others modified the initial perception of this model in 1974 to be what it is At the present time its three phases (exploration, introducing the concept, applying the concept)

Football is one of the favorite and liked difference games in physical education lessons, because it provides the right place to play and the law is easy.

The importance of the study lies in that it is an attempt to direct the attention of specialists to pay attention to teaching mathematical skills according to the (Karplas Model), as this model contributes to teaching and developing motor performance through developing thinking and exploration among learners, in addition to that this model is one of the active educational models that may interest students and It motivates them to learn, eager to know and actively participate with the teacher

Previous studies:

In (Hussain's Study, 2019)

(The effect of the electronic educational mindfulness course, according to the Carls and Baby model on cognitive achievement, learning and retaining some skills of ground movement rugs and jumping platform in your gymnasium for students)

The research problem was summed up by the lack of following modern structural theories that achieve the educational and behavioral goals of some practical subjects in the curricula of physical education, including volleyball, and this is due to the teachers' follow in traditional teaching methods that focus on memorization and repetition. The curriculum consisting of (12) educational units has been applied With a time of (90 d), the results showed that the model (Carables) according to the educational cycle of mindfulness had a positive impact in achieving learning factors and its effect on cognitive achievement and retaining some skills of the rug of ground movements and the jumping platform in your gymnastics for students and in terms of title tests. Yeh and dimensionality of research groups experimental and control.

And in study (Alia, 2014)

Structural learning strategy for people with subtle thinking and its impact on cognitive achievement and learning the skills of crushing hitting and blocking the volleyball

The research problem was summed up in the lack of use of the structural model in the process of learning mathematical skills and the difficulties that occur in the learning process due to the use of traditional strategies and methods, as well as identifying the effect of this strategy in learning the skills under research and that the research community and its sample may be represented in the second stage students in the College of Physical Education For Girls University (2014-2015), and after applying the curriculum consisting of (16) educational units distributed over (8) weeks by two educational units per week, the researcher reached conclusions, the most important of which is that the educational curriculum designed according to the constructive learning strategy has proven its importance Its effectiveness for those with careful thinking in learning the skills of overwhelming hitting and blocking the ball volleyball better than the method used in the college and also the appropriateness of the educational curriculum designed according to the constructive learning strategy for students who have a clever thinking has achieved better results in learning the skills of overwhelming hitting and blocking the ball volleyball better It is the method used in the college, moreover, that female students who have subtle thinking in the experimental group have the ability to learn better than female students who do not have subtle thinking in the group itself, and that female students who have a good thinking Taste in the control group have the ability to learn better than female students who do not have clever thinking in the same group.

MATERIALS AND METHODS:

The researchers used the experimental approach to design the two equivalence groups with pre and post tests, and the experimental approach is one of the most efficient and accurate scientific research methods, and this is related to a set of characteristics and advantages that this method has.

The aim of the research is to use the (Karls model) in learning the skill of handling in football as well as developing the cognitive aspect of second-grade middle school students (Al-Saber) affiliated to the General Directorate of Education in Baghdad, Al-Karkh II for the academic year 2018-2019 and their number (190) students distributed On (5) people are (A - B - C - D - E) (36, 40, 39, 33, 42) to be the research community and

(30) students were selected as a sample where they were randomly selected, and (10) students were selected For the exploratory experiment, the rest of the sample was divided into two groups: the experimental group (10) students, and the control group (10) students as in Table No. 1 and also found Tikka Fawaa groups in the pre-test of handling skill as in Table No. (2)

The study lasted eight weeks with two educational units per week, the time of the educational unit (45) minutes for each group, and the researcher used the statistical bag (spss and some statistical laws to analyze the data)

Table (1)
Shows experimental design of the research sample

Comparison	Telemetry	Experimental treatment	Tribal measurement	the group
The difference between the pre and post tests	Cognitive achievement test + skill tests	Carls Model	Skill tests	Experimental model with the karppls
The difference between the pre and post tests	Cognitive achievement test + skill tests	The method followed the command method	Skill tests	Control group

Table (2)
Equivalence of groups is shown in the cardiac test of handling skill

Type of indication	Sig	Calculated P value	Control group		Experimental group		Milestones Statistical Variables
			standard deviation	Arithmetic mean	standard deviation	Arithmetic mean	
Not significant	0.499	0.806	0.96609	3.400	0.73786	3.1000	Handling

Moral <(0.05)

Skill tests:

Test name: Handling towards a small target a distance of (15) meters (Thunder, 1999, 64)

Purpose of the test: Evaluating the technical performance of the laboratory when handling.

Tools used: (5) footballs, small target (110-63) cm in size, camera, markers, tape measure, and spirea dyes.

Test procedures: A starting line is drawn with a length of (1) m at a distance of (15) m from the small target. (5) balls are placed on the starting line according to what is shown in Figure (4).

Performance description Performance: The student stands with the ball behind the starting line, which is 15 m facing the small target. It begins when the signal is given by the teacher. The ball is handled towards the small goal and each student is given (5) successive attempts.

Orthodontic degree: (10) degrees.

Test score: The results of the laboratory are collected from the three components, and the mean is calculated.

Exploratory experiences:

To find the best way to implement field research procedures, the researchers conducted three exploratory experiments on a group within the research community and excluded from its sample and it consists of (10) students randomly chosen from the second intermediate class students and they are outside the research sample as follows:

Football's first scouting experience

The researchers conducted the first exploratory experiment on a sample made up of the average second-grade students on Monday 18/2/2019 and they are outside the research sample in order to identify:

- .The time required for the test -
- .Organizing the assistant team in performing the duties assigned to them -
- .Ensure that the instruments used for testing are valid -
- Diagnose errors that will appear in the pilot experience and overcome them later.

The second exploratory experiment for the cognitive achievement test:

The researcher conducted an exploratory experiment to test the cognitive achievement consisting of a set of questions related to the skill of handling, whose paragraphs were determined by the specialists in this field, on a sample of the second average grade for boys for the academic year (2018-2019) on (Tuesday) on (19 / 2/2019) at (8:46) hours, for the purpose of identifying:

- Duration of time and necessary to perform (distribution of test paper, instructions, answer, collection of forms).
- The level of test items is appropriate to the level of the sample and their ability to answer it.
- .- The place is suitable for carrying out the test
- Diagnose errors that will appear in the pilot experience and overcome them later.

The third exploratory experiment:

The researcher conducted the third exploratory experiment related to the educational units according to the Karls learning model, on a sample of middle-grade students, on Wednesday, which corresponds to 20/2/2019 and they are outside the research sample, to identify the possibility of applying the Karpelus learning model and the tools used in the educational unit, The time limit for educational units is also calculated.

Before tests for the research sample

Tribal tests were conducted on Monday 25/2/2019 for football handling skill

The main experience:

The researchers have developed a curriculum to teach the skill of handling using the Karpels learning model for the experimental group, whereas the control group is taught the skills according to the traditional method followed, as exercises were applied for the period from 26/2/2019 to 6/5/2019.

.- The duration of the educational units was (10) weeks
The number of educational units (20). -

.The number of educational units was (2) units per week -

.- The time of the main unit of the educational unit is (32) minutes, (15) minutes for the educational section and (17) minutes for the applied unit.

The first experimental group according to the learning model Carables

The Karls model consists of three stages in which the student has an important role in the success of the teaching process. After doing warm-up in the preparatory part, the teacher enters the main section and the first stage of this model is (exploration stage) so the teacher begins with giving a small introduction to the subject (the skill to be taught And then he partly explains the skill (so that the student can think about and research the skill) on the projector using a computer and a data show or a large plasma TV. After this introduction, the learners are divided into groups and the teacher distributes questions to them related to the concept and here Learners interact directly with new experiences and situations that raise some questions that may be difficult to answer, and then carry out group activities to search for answers to questions distributed to them by the teacher. During the research process, they discover new things, ideas, or relationships that were unknown to them before. (Nihad, 2005, 58)

After that the second stage of this model (introducing the concept) comes into effect and is carried out at this stage of the learning circle according to what it indicated (Lombard, 1982,653) "Discussing and presenting explanations related to the new concept or principle and this stage is directly related to the exploratory activities used in The first stage and the teacher resorted to directing students' thinking towards some experiences related to the concept, where each group presents the solutions that it reached and discusses with the teacher and with other groups (solutions are given orally from the head of each group) Finally, after the teacher finished the discussion in the second stage and clarified everything that was vague

and wrong with the students, we get to the third stage (application of the concept), where (Effat, 2002, 50) indicates that in this stage students use the information they have learned to apply in situations New, as these applications contribute to increasing understanding and help this stage to transfer the impact of learning and generalize previous experiences among students in new situations. Here, the teacher must give his students enough time to apply what they have learned and to discuss each other during this stage.

The second experimental group was controlled

It was done according to the usual teaching method followed by the lesson and it is called the Emiri style.

after tests:

Dimensional tests were conducted on Monday, 6/6/2019, knowing that pre and post tests were conducted at nine in the morning and on the outside square of the average Saber boys. The researchers were keen to create the same conditions that were conducted in the tribal and post-tests in order to obtain correct results

Statistical means:

The researcher used the statistical bag (SPSS) to process the research data by:

.Arithmetic mean -

Standard deviation. -

.Percentage -

T.test test for symmetrical samples. -

RESULT AND DISCUSSION:

Table (3)

Arithmetic mean, standard deviations, calculated value (t) and differences in experimental group in pre and post test results in handling test

Type of indication	Sig	Calculated t	P	before-test		after-test		Variables
				standard deviation	Arithmetic mean	standard deviation	Arithmetic mean	
moral	0.000	15.821-	5.30000-	0.51640	8.4000	0.73786	3.1000	Handling

Significant <0.05

Table (4)

Arithmetic mean, standard deviations, calculated value (t) and significance of differences in the control group in the pre- and post-test results in the handling test

Type of indication	Sig	Calculated t	P	before-test		after-test		Variables
				standard deviation	Arithmetic mean	standard deviation	Arithmetic mean	
moral	0.04	3.857-	0.90000-	0.82327	4.3000	0.96609	3.4000	Handling

Significant <0.05

Table (5)

Arithmetic mean, standard deviations, calculated p-value and significance of differences in dimensional tests between the control and experimental groups of the handling test

Type of indication	Sig	P calculated	Control group		Experimental group		Statistical parameters
			standard deviation	Arithmetic mean	standard deviation	Arithmetic mean	
moral	0.000	82.235	0.82327	4.3000	0.51640	8.4000	Handling

Significant <0.05

Table (6)

The mean, standard deviation, and value (P) of the post test are given in the cognitive test

indication	Sig	Calculated P value	standard deviation	Arithmetic mean	Groups	the test
moral	.000	221.240	1.33333	33.0000	Division B.	Cognitive achievement
			1.13529	21.2000	Division H.	

Moral <(0.05) at the degree of freedom (36: 3) and under the significance level (0.05)

Discuss the results:

It is clear to us through the results presented in tables No. (3-4-5) that we find that there is a significant difference in the pre and post tests and for the experimental groups and the control group and in favor of the post test in the handling test, and the researchers attribute the learning obtained by the experimental group to the effect The use of this model (Carables), which has three stages, which stimulated the learner and extracted his possibilities that resulted in improving the kinematic concept among learners, gave the kinetic phenomenon its correct system, and thus positively reflected on the learning process starting with the first stage of this model, which is exploring the skill He knows it in the early stages of his learning and motivates him to learn and interact with the new skill, and this is confirmed by (Hassan and Kamal, 2003, 51) that students interact directly with new experiences, which would raise a number of questions that need to be answered by doing their activities. Whether individual or group, and during the research process, things that were previously unknown to them are discovered, up to the second stage, which expanded the perceptions of learners through teamwork among colleagues, up to the correct way, and up to the stage of applying the concept. Here the learner had reached the widening extent of the

students `understanding of the concept that s They were understood during the detection and presentation stages, and this is consistent with what I mentioned (Nidal Boutros, 2004, 167) in the importance of clarity of the learning steps as well as the nature of the presentation of the scientific material to accommodate the needs of learners by linking theoretical foreigners with practical application, which leaves a clear and effective impact in the development of inferential thinking in Students, as it helps them to increase their cognitive and skill potentials so that it is easy for them to perform mental processes, and their applications in the scientific aspect The researchers point out that this transformation and distinction of the learning cycle that emanates from constructivist theory is based on the learner and his activity during the learning process and emphasizes learning with meaning based on understanding through the active role and active participation of students in the activities they perform with the aim of building their concepts and scientific knowledge (2003, RDoerr Lesh)&

In furtherance of what was mentioned, there is an agreement with the researchers with (Mithaq, 2015, 48) that the development that occurred for the experimental group in the performance of the handling skill is due to the learner relying on the experiences acquired and

repetition up to the stage of mastering the skill and the effectiveness of the collective work of learners and the exchange of opinions and ideas in order to reach on A good understanding of the skills involved in learning is one of the important steps that enhance the educational process and is consistent with what he mentioned (Maher, 277, 2006), that through the exchange of dialogue, questions, and ideas quoted and presented by the teacher, the learner is positive and participant and builds the educational process correctly. What the role of both the teacher and the learner.

Through the results presented in Table No. (6), it becomes clear to us that there is a significant difference in the post-test between the control group and the experimental group and in favor of the experimental group in the cognitive achievement test.

The researcher attributes the reason for this development taking place to the effect of using the Karplras model, which led to the development of a large amount of mental skills that focus mainly on searching for information, investigating, analyzing, organizing and remembering information, as well as the good application of the components of this model, as well as That was the gradual and presentation in giving information the benefit of shares as an effective and influencing factor for the sample of students from experimental groups, and this was confirmed by (Azhar Qasim) "Presenting the educational material in a sequential and interconnected manner from year to detail and dividing the content at levels that increase the learner's adequacy To learn and stimulate his mental abilities to a To search for information and discover the relationships between them and link them to his needs and previous knowledge, and then encourage the learner to think about what he is learning and his endeavor to organize it and link it to the new academic subject and what he already knows in order to retrieve it when needed

(Ahmed Salem Bataniah and others) mentioned that all motor skills, whether basic or mathematical, are rather perceptual cognitive skills of a cognitive nature that depend mainly on the information received by the sensory organs and then transferred to the brain, which

REFERENCES:

- Ahmed Salem Batayneh and others: kinesthetic perception and its relationship to maintaining accurate kinetic stability (Journal of Educational Sciences Studies, Yarmouk University, Jordan, volume 40, No. 1, 2013).

translates them and sends them to the muscles concerned through the motor nerves in the form of Orders, which leads to muscle contraction

The researchers add to the above through the learning process that took place in favor of the experimental sample, it translates the constructive learning model Carables and makes the learning process active seeking to explain the stimuli and bring about changes in the knowledge plans of students and the learner is responsible for his learning and build meaning for his experiences and the learner reaches the maximum in his learning when looking On the knowledge of himself and then he is discussing with others to reach the best conclusions, in a more accurate sense the researchers believe that the model (Karpples) which consists of three stages during the learning cycle gives the learner a wider opportunity and a greater field to gain experience within the time of the specified lesson and creates effective conditions for Especially not when it comes to the learner or relies on himself.

CONCLUSIONS:

Based on the above, the following conclusions were reached:

- The use of the (Karplras model) has an effective effect on developing cognitive achievement and learning the skill of football handling for the research sample.
- The Carables model can be adopted in learning the football handling skill and in developing students' cognitive achievement, because it encourages students to investigate information and facts and makes the student think about performance before doing it.

ENDORSEMENT:

Through the findings, the researchers recommend the following:


- Adopting the Karpleus model in developing cognitive achievement and learning the skill of football handling.
- Conducting a study similar to the current one on other mathematical skills and at different age and academic stages.

- Azhar Qasim Al-Azzawi, a model effect of McCarthy and Wrigluth in acquiring scientific concepts and the trend towards science among first grade middle school students, unpublished doctoral thesis, University of Baghdad, College of Education, Ibn Rushd, 2010.
- Hassan Hussein Zeitoun and Kamal Abdel Hamid Zeitoun: Learning and Teaching from the Perspective of Structural Theory, 1st edition: (Cairo, Books World, 2003).
- Raad Hussein Hamza, following the use of the specific areas method in developing basic football skills, Master Thesis, College of Physical Education, University of Baghdad 1999.
- Effat Mostafa El-Tantawy: Teaching and learning methods and their applications in educational research: (Cairo, the Anglo Egyptian Library, 2002).
- Ali Shamil Hussain: The effect of the e-learning mindfulness course according to the Karls and Baby model on cognitive achievement, learning and retaining some skills of ground movement rug and jumping platform in gymnastics for students, PhD thesis, Yali University, 2019.
- Alia Hussein Farhan Luxury: Structural learning strategy for those with subtle thinking and their impact on cognitive achievement and learning the skills of crushing hitting and blocking the volleyball, Master Thesis, College of Physical Education for Girls, University of Baghdad, 2014.
- Maher Ismail Sabry: Teaching its principles and skills, 2nd edition: (Amman, Youth Library 2000, 2006), p. 277.
- Mustafa Fadhel Khudair: Swom strategy and its impact on developing cognitive achievement and some basic football skills for fourth-year middle school students, Master Thesis, College of Physical Education and Sports Science, University of Baghdad, 2017.
- Charter of Ghazi Muhammad and Israa Abdul Ridha Younis: The effect of the Bayi curriculum in teaching some basic skills of volleyball on students of the Faculty of Physical Education and Sports Science: (Journal of Studies and Research in Physical Education, University of Basra, No. (48), 2016.
- Nidal Matta Petros: The Impact of Using the Types of the Direct Learning and Presentation Course on Achievement and Development of Inferential Thinking in Mathematics, PhD thesis, College of Physical Education, University of Baghdad, 2004.
- Nihad Mahmoud Kisnawi: The effect of using the learning course on the achievement of scientific concepts in the biology axis of second-year students in the city of Jeddah: (unpublished Master Thesis, Umm Al-Qura University, College of Education, 2005.
- Lesh, R,& Doerr, H.M . (2003)Beyond constructivism : A models and modeling perspectives on mathematics problem solving , learning and teaching .Hillsdale , NJ : Lawrence Erlbaum Associates , Inc .
- Lombard, Anne: "Effect of Rezoning Workshop on the Teaching strategies of secondary science teachers", science Education, 66 (4), 1982 .

Annex (1)

Sample of an experimental group educational unit

Notes	the details	Parts of the plan	Time	Section
	Equipping tools- Stand in a row and get in- Jogging around the field- -Warm-up and stretching exercises, and preparing body parts for exercise	Warm-up	10 m	Preparatory

	<p>The teacher divides students into 4 groups -</p> <ul style="list-style-type: none"> - The teacher raises questions to learners about the skill of handling to link between previous and subsequent experiences - Provide enough time for students to search for answers (within the available plan time) and give them the necessary directions - The teacher asks the learners what experience they will discover - Learners take notes and are directed to discover experiences of handling skill 	<p>Concept discovery stage 7 m</p>	<p>15 m educational section</p>	<p>Main 32 m</p>
<p>Ensure timeliness for each stage and work accordingly</p>	<ul style="list-style-type: none"> - Explanation of the experience to be learned (handling skill) by the teacher - The teacher displays the technical stages of the handling skill using the Data Show projector and the printed plate (Flex). - Discussing their educated ideas to find appropriate solutions to questions and inquiries related to the skill of handling and getting to know them - Each group presents the solutions that it reached during the exploration phase and discusses it with the teacher and with other groups 	<p>The concept presentation stage 8 m</p>		
	<ul style="list-style-type: none"> - Performing pre-applied and applied exercises with immediate feedback to correct errors 	<p>The concept implementation stage 17 m</p>		
	<p>Collect tools -</p> <ul style="list-style-type: none"> - Students stand in the form of a square minus the rib, calm, and leave 	<p>3 m</p>		

Technical performance evaluation form for handling skill

Ingredient name: location

Date: // signature

Orthodontic degree: (10) degrees. the test

the group

Precision	The final section	The main section	Preparatory section	The laboratory	student's name	sequence
						1
						2
						3
						4
						5
						6
						7
						8
						9
						10

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Praise be to God, he lifted the sky and spread the earth and blessed everything with his goodness, and praise be to God who made the reality of his presence in the hearts of those who know. Praise be to God for his favor and favor to me, and prostrate to him in fear, greed, desire and dread as long as my breath embraces life and my soul is committed to obeying him. His house is the good, the pure, and the beloved friends.

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