

## **Effect of Format Model (4MAT) in Learning Some Basic Basketball Skills for Second-Grade Students and Their Cognitive Achievement**

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### **ABSTRACT**

For the purpose of achieving the aim of the research by identifying the effect of the format model (4MAT) Learn some of the basic skills of basketball for students second grade average and achievement of cognitive researchers used the experimental method on a sample of 30 students from the second grade average martyrs ISLAM m for boys , and after the experiment and processing data obtained by the researchers, found a the most important conclusions, including : The use of the FORMAT model had a positive effect in learning basic skills in basketball and increasing cognitive achievement among the members of the experimental group . There are differences data in the study variables and tribal posteriori tests for the experimental and control groups in favor of the choice's dimensionality. There are differences in data significant variables in the study tests posteriori experimental and control groups and the good experimental group. It recommends the following: the need for long grows up educational format in teaching the basic skills of games difference intermediate stage, and also emphasizes the cognitive side and conducting similar studies using the form model on other sports games and for other school stage.

**Keywords:** Model, 4MAT, Skills, basketball, cognitive, achievement.

### **Introduction**

Research and studies have confirmed that children often tell us what they think and feel through their play representative free and use of toys, cubes, and other colors, and is considered to play an intermediary educational works largely on the formation of the child 's personality dimensions of pain, and so the educational games once better overcome, regulation and supervision It plays an effective role in organizing learning , and studies have proven the great value of playing in acquiring knowledge and the skills to access it if it is properly exploited and organized .

**Research importance:**This study is an attempt by researchers to test the format model in improving cognitive achievement and learning basic skills of basketball for the second intermediate grade as

enhanced concepts of cognitive sports, and using methods and methods of

modern learning to raise students' motivation to contribute towards learning the game of basketball in the middlestage.

**Research problem:** Through the work of researchers as teachers of physical education, the traditional methods used by physical education teachers in the middle stage no longer fulfill the purpose that the objectives of this stage were set to achieve through the physical education lesson. Researchers have worked to use an educational model may contribute to solve this problem by answering the following question: What is the impact model formic to learn some of the basic skills of basketball and collected m knowledge of the second average students?

**The aim of the research:** Identify the effect of using the FORMAT model in learning some basic skills of basketball for second intermediate students and their cognitive achievement.

## Research Methodology

The researchers used the experimental method of designing the two equivalent groups of pre and posttest due to its suitability to the nature of the research.

**Research community and sample:** The research group included second-grade intermediate students in the Martyrs of Islam Intermediate School for Boys for the 2019-2020 academic year, whose number was (176) students distributed among classes (A, B, C, and D). The students of the two classes (A) and (B) were chosen to be a sample. The research reached (30) students distributed into two experimental and control groups, at a rate of (15) students for each group by the systematic random method.

## Literature review

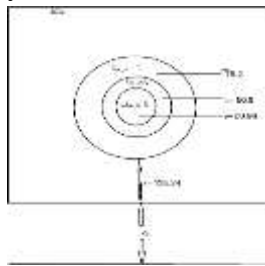
### 1. Identifying and testing some basic basketball skills

The two researchers identified some basic skills that are determined within the second-grade curriculum, namely (chest handling, high patience, and peaceful scoring).

### 2. E. Tests basic skills candidate basketball

#### ▪ The Chest Handling Test:(Jasim, 2016)

**Registration:** If you hit the ball circle the micro gets the laboratory on (5 degrees), but if you hit the ball circle the middle gets the laboratory on (3 degrees) and it hit the ball circle major gets the laboratory on the degree of one and if you came out the ball from all circles get the lab to zero.



**Figure (1) shows the test handling bra accuracy on multi - circuit**

#### ▪ E. test scoring of the peaceful movement after the performance clapotement:(Hamdani,2018)

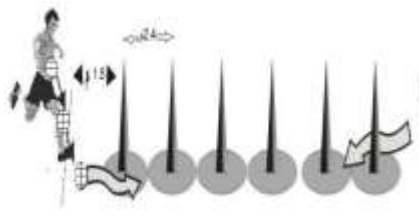
**Registration:** is calculated for each attempt successful in scoring point one. The highest points obtained by the laboratory are (10) points.



**Figure (2) shows how the performance of the test scoring of the peaceful movement**

▪ **The test of the skill of the chatter or patience: Dribbling (Al-Dewa G, 1999)**

**Registration:** calculates the time that leads the laboratory work required, and recorded a time that it took in two attempts ad hoc to him, but that counted him the least of the time.



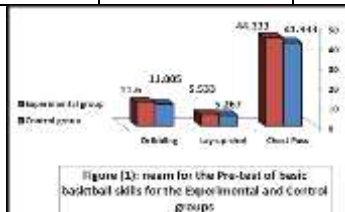
**Figure (3) shows the performance of the skill of the clapotement between characters**

### 3. Pre-test

Conducted researchers' tribal tests on the sample in S. Oasis Medium Martyrs of Islam Boys on Monday 11/11 AD 2019 PMS promising school education sports school after providing all the supplies, equipment and tools for testing, and for the purpose of harmonization and equivalence between the two sets of research in the performance of the basic skills of basketball under Search. And Table (1) shows that:

**Table (1) shows the arithmetic mean, standard deviations, the value of (f), the value of (T) and the Sig. between the experimental and control groups in the pre-test.**

Skills	GROUP	Mean	Std. Deviation	Std. Error Mean	F	Sig.	t	Sig.
Chest Pass	Experimental group	41.933	5.561	1.436	.309	.583	-1.065	.296
	Control group	44.333	6.726	1.737				
Lay-up-shot	Experimental group	5.267	1.223	.316	.050	.824	-.592	.559
	Control group	5.533	1.246					
Dribbling	Experimental group	11.005	.834	.215	.199	.659	.452	.654
	Control group	11.600	.736					



The results of Table (1) and Fig.(1) showed that all the significance level values associated with the test values (t) A came size of the significance level (0.05), which indicates that there are no

real differences (function) between the results of the two groups, and this means that tack a P A two in all tests. It appears from the same table that all the significance level values associated with the values of (F) A came size of the significance level (0.05), which indicates that there are no real differences (function) between the results of the two groups, which means homogeneity (equal) variations of treatments for all tests.

#### **4. Main Experience**

The two researchers began implementing the main experiment from Monday 11/18/2019 to Wednesday 26/12/2019 for period of (6) weeks, at a rate of two educational units per week, according to the weekly schedule prepared by the school administration. The control group is in the second lesson and in the manner followed by them, and the experimental group is the third lesson and is taught according to the FORMAT model in the main section of the educational unit on Monday, and on Wednesday, the second lesson will be for the experimental group and the third lesson for the control group. The teacher begins to apply the educational aspect of the main section for a period of ( 1 0 d ) according to the format model in which the first ( theoretical ) dimension is applied in the perception that takes place in the first two stages ( reflective observation ) as the teacher in this phase divides the students and then divides them The students noticed through some questions, for example : When the player receives the ball, is he looking at the ball or at the playground to search for a colleague who will be handled? The teacher asks the students to answer the question, and then the teacher allows the students to answer the various types and then reviews the answers of the groups and leaves time for the students to reflect on their thoughts to see their validity and helps them judge their validity. As for the second stage (crystallizing the concept) or the ideal performance, where the teacher presents a video in which he reviews the reception and handling of basketball and the relationship that connects them through play situations, then models of correct ideal performance are presented. And then after that the transition is made to the practical side of the main section for a period of (20d), which takes place through the second (practical) dimension of treatment, as the teacher applies the third phase (active experimentation). In this phase, the groups are asked to perform an exercise of capturing and handling in order to their performance. The teacher then corrects the errors by giving them feedback on receiving and handling performance. As for the fourth stage (Physical Experiences), in this stage, students are asked to perform receiving and handling through some situations to play in order to see what they have reached in terms of new experiences (performance is by the students without being bound by the teacher's instructions so that the vision of the creativity that the students will be fulfilled can be seen), then the tide RSS Give feedback.

#### **5. Post test**

After completing the application of the main experiment, the researcher conducted the post-tests on the individuals of the research sample under the same conditions of the pre-tests on Monday 30/12/2019, as the cognitive test of the second lesson of the two groups was conducted, and the practical test of the basic skills in the third lesson with the help of the subject teachers, note that they were informed of the date of the exams upon completion of the experiment with the knowledge of school management.

## 6. Statistical methods

The researchers used the statistical bag (SPSS) Together to the abyss of the data obtained from these means (arithmetic mean, standard deviation, and the value of Levin homogeneity, test (t) samples correlated and non - correlated, and the error rate).

## 7. Presentation, analysis and discussion of results

### ▪ Presentation and analysis of the results of the pre and posttests for the experimental and control groups in basic skills in basketball

Table (2) shows the arithmetic mean, standard deviations, and standard error between the pre-test and the post-test of the basic skills of basketball for the experimental group.

Skills	Test	Mean	Std. Deviation	Std. Error Mean
Chest Pass	Pre-test	41.933	7.530	1.944
	Post-test	52.133	6.726	1.737
Lay-up-shot	Pre-test	5.267	1.242	.321
	Post-test	8.600	1.246	.322
Dribbling	Pre-test	11.005	.675	.174
	Post-test	12.057	.736	.190

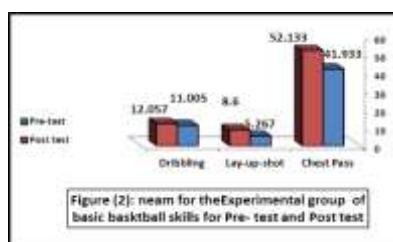


Table (2) and Figure (2) show the statistical estimates of the arithmetic mean and the standard deviations and the standard error of the pre and posttests in performing the basic skills of basketball in question for the experimental group as there is a discrepancy between them and to find out the differences between them, the researcher used the test (T) for the correlated samples and Table (3) shows that:

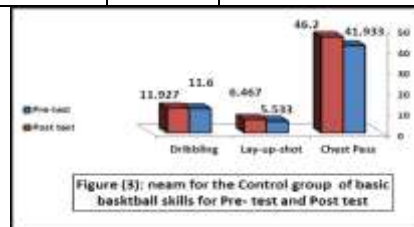
**Table (3) shows Media Difference, Standard Deviation, (T) Value, Error Ratio, and Statistical Decision between Pre and Post Test for Basic Basketball Skills for the Experimental Group**

Skills	Mean	Std. Deviation	Std. Error Mean	t	Sig.	Statistical decision
Chest Pass	7.800	11.465	2.960	2.635	.020	moral
Lay- up- Shot	3.067	1.223	.316	9.713	.000	moral
Dribbling	-.922	1.002	.259	-3.564	.003	moral

Table (4) shows the arithmetic mean, standard deviations, and standard error between the pre-test and the post-test of the basic skills of basketball for the control group.

Skills	Test	Mean	Std. Deviation	td. Error Mean
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<b>Chest Pass</b>	<b>Pre-test</b>	<b>41.933</b>	<b>5.561</b>	<b>1.436</b>
	<b>Post-test</b>	<b>46.200</b>	<b>6.635</b>	<b>1.713</b>
<b>Lay-up-shot</b>	<b>Pre-test</b>	<b>5.533</b>	<b>1.223</b>	<b>.316</b>
	<b>Post-test</b>	<b>6.467</b>	<b>1.125</b>	<b>.291</b>
<b>Dribbling</b>	<b>Pre-test</b>	<b>11.600</b>	<b>.834</b>	<b>.215</b>
	<b>Post-test</b>	<b>11.927</b>	<b>.828</b>	<b>.214</b>



The table shows (4) Figure (3) statistical estimates of circles and standard deviations and error standard for tests of tribal and dimensionality in the performance of the basic skills of basketball under the group of officers of as a discrepancy between them and to find out the differences between the researcher used the test (t) samples linked table (5) It shows:

**Table (5) shows Media Difference, Standard Deviation, (T) Value, Error Ratio, and Statistical Decision between Pre and Post Test for Basic Basketball Skills for the Experimental Group**

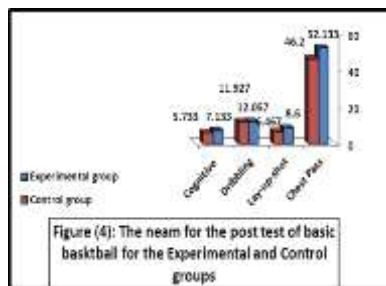
Skills	Mean	Std. Deviation	Std. Error Mean	t	Sig.	Statistical decision
<b>Chest Pass</b>	<b>-4.267</b>	<b>7.564</b>	<b>1.953</b>	<b>-2.185</b>	<b>.046</b>	moral
<b>Lay- up-shot</b>	<b>-1.200</b>	<b>1.740</b>	<b>.449</b>	<b>-2.671</b>	<b>.018</b>	moral
<b>Dribbling</b>	<b>.457</b>	<b>1.274</b>	<b>.329</b>	<b>1.390</b>	<b>.186</b>	Insignificant

**8. Presentation and analysis of the post test results for basic basketball skills between the experimental and control groups**

**Table (6) shows the arithmetic mean, standard deviations, the value of (f), the value of (T) and the Sig. between the experimental and control groups in the post-test.**

Skills	GROUP	Mean	Std. Deviation	Std. Error Mean	t	Sig.	Statistical decision
<b>Chest Pass</b>	<b>Experimental group</b>	<b>52.133</b>	<b>7.530</b>	<b>1.944</b>	<b>2.290</b>	<b>.030</b>	<b>moral</b>
	<b>Control group</b>	<b>46.200</b>	<b>6.635</b>	<b>1.713</b>			
<b>Lay- up- Shot</b>	<b>Experimental group</b>	<b>8.600</b>	<b>1.242</b>	<b>.321</b>	<b>4.929</b>	<b>.000</b>	<b>moral</b>
	<b>Control group</b>	<b>6.467</b>	<b>1.125</b>	<b>.291</b>			
<b>Dribbling</b>	<b>Experimental group</b>	<b>12.057</b>	<b>.675</b>	<b>.174</b>	<b>-2.156</b>	<b>.040</b>	<b>moral</b>
	<b>Control group</b>	<b>11.927</b>	<b>.828</b>	<b>.214</b>			

<b>Cognitive achievement</b>	<b>Experimental group</b>	<b>7.133</b>	<b>1.060</b>	<b>.274</b>	<b>3.446</b>	<b>.002</b>	<b>moral</b>
	<b>Control group</b>	<b>5.733</b>	<b>1.163</b>	<b>.300</b>			



### 9. Discussing the results

The results of Table (3) and (4) showed that there were significant differences between the pre and posttests of basic football skills for the experimental and control groups and in favor of the posttest. Attribute the researchers reason that for the experimental group to the positive effectiveness of the model format in the vital increase and motivation towards learning and participation by students for the purpose of acquiring these skills in the search and this corresponded to what a u a t to him ( Du'mus , 2008 ) " The model formic makes the situation Education is characterized by vitality and mutual interaction between the teacher and the student, as well as between the students each other . " As for the control group, he attributes the reason for its members 'learning to the method used by the physical education teacher, which had aninfluential role in learning basic skills in basketball under consideration. Note through the table

(6) The results showed that there were significant differences between the experimental and control groups in the post tests for the skills of basic basketball and testing machine R collectionof knowledge for the benefit of the experimental group. The researchers attributed the reason to the positive impact of the model formic who own learning cycle in this model was applied to members of the experimental group , see ( Dwyer , 1993) That n Models format is an educational of course W Mann J stages, to be one of the four types of learning styles and lead to externaldata for August of the means of learning by a for brain A for a J of or a for Acer, and j can guide a for teacher strategic steps teaching to meet the for educational needs of for a variety of for August, and every stage of the for stages of the eight of the model T confirms one of the types of methods of learning and reciprocity between the style together for JH a for information painful j n L. Z left

. During the practical application of skills performance, the teacher gives feedback to correct errors, and this is consistent with what was stated (Al- Diwan, 2016): "When the student performsmotor skills, the teacher often uses words that are an incentive for better performance or to modify performance "

### Conclusion

The two researchers reached the most important conclusions, including: The use of the FORMAT model had a positive effect on learning basic skills in basketball and increasing the cognitive achievement of the members of the experimental group. There are differences in data significant variables in the study of tribal and dimensionality tests for the experimental and control groups in favor of the choice's dimensionality. There are differences in data significant variables in the study tests posteriori experimental and control groups and good desorption group experimental. The two researches recommend the following: The necessity of using the educational format

model in teaching basic skills for middle school differential games, and emphasizing the cognitive aspect as well and conducting similar studies using the format model on other mathematical games and for other academic stages .

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