

## THE EFFECT OF THE KEMP MODEL ON SOME COMPATIBLE ABILITIES AND LEARNING THE SKILL OF PEACEFUL SHOOTING IN BASKETBALL FOR FEMALE STUDENTS

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### Abstract

Modern educational technologies are among the educational means, tools and devices, taking into account the learning environment and how to organize it to serve the educational situation. The problem is the lack of interest in educational activities and events that aim at the comprehensive growth of the student's personality. The research for the educational design according to the Kemp model has a positive effect on the compatible abilities and learning the skill of peaceful shooting in basketball. As for the research method, the researchers used the experimental method for its suitability to the sort of the problem. The sample members were divided into two equal experimental groups in basketball, they are (20) female students, and they were divided into two groups (controller) and (experimental) and by lottery (10) students for each group. The College of Physical Education and Sports Science for Girls The recommendations are to work on organizing the content of the course with an educational design according to the steps of the Kemp model and in a manner that is appropriate and achieves the educational goals set.

**Keywords:** Model. Kemp. Abilities. Basketball

### INTRODUCCION

The use of modern educational technologies in terms of educational means, tools and devices, taking into account the learning environment and how to organize it to serve the educational situation and to address educational problems in a systematic way that proceeds in organized and integrated steps to contribute to finding scientific additions for learners to keep pace with the development taking place in all fields and to achieve specific positive behavioral and educational goals.

The researchers believe that the instructional design is a technique for developing education with its experiences and environments, and works to integrate well-known and proven learning strategies into educational experiences that make the demand for knowledge and skill more effective, appropriate and sufficient, and it is also a technique for creating learning experiences and environments that will improve educational activities, and make it more effective and interesting in undergraduate female students in various subjects, including basketball, in the cognitive and skill aspects of its vocabulary. Therefore, the importance of research lies in an educational design according to the Kemp model lies in the abilities of compatibility and learning the skill of peaceful shooting in basketball for first-year students - College of Physical Education and Sport Sciences for girls, which focuses on identifying learners' characteristics, needs, goals, priorities, and obstacles that should be identified, as well as evaluation and feedback, and thus departs traditional lessons.

This study may add to the educational process in the field of curricula and teaching methods a model that can

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be renewed when used due to its advantages in strengthening and activating the role of the university student and improving consensual abilities and its skill performance as inputs to educational experiences that help in the success of the teaching-learning process and the achievement of its objectives.

### Research Problem

Lack of interest in educational activities and events that aim at the comprehensive growth of the student's personality, which may lead to the emergence of many problems facing the teacher by following some techniques and methods, and the adoption of these techniques and methods sometimes are far from investing time and effort in a correct and distinct manner, which in turn works on Low compatible abilities and poor skill performance in those subjects, including basketball vocabulary and skills. What the researchers seek through instructional design according to the Kemp model for engineering and organizing the learning environment and bridging the relationship between theoretical principles and their applications in the educational situation to develop teaching by describing the procedures related to the selection of educational material. Weakness in the compatible abilities of the students, which the researcher believes to have an important role in learning the peaceful shooting in the game of basketball, as it has an important effect in reducing time and effort to focus on the educational process.

### Research Objectives

- 1- Preparing an instructional design that matches the Kemp model in compatible abilities and learning the skill of peaceful shooting in basketball for first-year students - College of Physical Education and Sports Sciences for Girls
- 2- Recognizing the effect of educational design according to the Kemp model on compatible abilities and learning the skill of peaceful shooting in basketball for first-year students - College of Physical Education and Sports Sciences for Girls

### Research Hypothesis

- 1- The educational design according to the Kemp model has a positive effect on the compatible abilities and learning the skill of peaceful shooting in basketball for first-year students - College of Physical Education and Sports Sciences for

Girls

### Research Areas

1-5-1 The human field: the first stage students - the Faculty of Physical Education and Sport Sciences for Girls, and their number is (112).

1-5-2 Time range: 3/22/2021 to 6/1/2021

1-5-3 Spatial domain: College of Physical Education and Sports Science for Girls, University of Baghdad.

### Research Methodology and Field Procedures

1- Research Methodology: The research methodology to be studied must be appropriate to the nature of the problem and expressed in a way that cannot go wrong, so the researchers used the experimental method for its suitability to the sort of the problem. The sample members were divided into two equal experimental groups.

### Research Sample

The sample "is the part that represents the community of origin or the model on which the researchers conduct the entirety and focus of their work" (Thijeel, et al., 2018; Mahgoub, 2002: 164). The research sample was chosen by the intentional method, and they are division (A), and the sample number is (26) female students, and they were divided after excluding the students who were not committed to attending, and their number was (6) students into two groups (controller) and (experimental) and by lottery to the amount of (10) students for each group (and in order to return the differences to the experimental factor, the experimental and controller groups must be completely equal in all circumstances except for the experimental variable that affects the experimental group) (Obeidat, 1988:22) (Table 1).

### Means of Collecting Information, Devices and Tools Used in the Research

#### Identification of Tests

The most important thing is that the researchers prepared a form to choose the appropriate tests for the skills under study. The form was presented to a group of specialists in motor learning and teaching methods of basketball and

**Table 1:** The equivalence.

Statistical coefficients Test Name	Measuring unit	Experimental group		Controller group		Calculated (T) Value	Level of indication	Indication
		M	±Sd.	M	±Sd.			
The ability to connect	Second	16,92	0,91	16,49	0,82	1,11	0,280	Not significant
Ability to balance	Second	89,26	1,59	90,86	1,069	0,416	0,682	Not significant
The ability to estimate the situation	Second	4,09	0,34	4,02	0,36	0,419	0,680	Not significant
Peaceful goal	Class	3,70	0,94	3,60	0,84	0,249	0,806	Not significant

The degree of freedom (m-2) (20-2=18) and the significance level (0.05).

**Table 2:** The Percentages of Experts Choosing the Tests Under Study.

Skills	Tests	Frequency	Ratio
The ability of motor linkage	Measurement of the motor linkage speed	3	75%
	Measuring accuracy and speed of motor linkage	1	25%
The ability of balance	Metatarsal stand test	3	75%
	Walking on the balance beam	1	25%
The ability of estimating the situation	Jumping on the numbered circle	3	75%
	skipping rope test	1	25%
Peaceful scoring	Measuring the speed of peaceful shooting	1	25%
	Peaceful shooting from the front side and at a distance of (3 m)	3	75%

their number is (4) supplement (1) and (2), and after collecting and unloading the forms, the tests that achieved an agreement percentage (70%) and above were selected, and the Table 2 shows that.

**Research Tests**

**First: Measurement of the Motor Linkage Speed**

- **The objective of the test:** To measure the speed of the motor linkage.
- **Tools used:** a tape measure, (2) basketballs, a basket goal, (5) signs, a scoring form, and a whistle, noting that two lines are drawn for the beginning and end, 5 feet (1.5 m) away from the first person, while the distance between the signs is 8 feet (240 cm).
- **Performance Specifications**
  - The participant stands behind the bench line with the ball, when he hears the start signal, he runs the glass-glass between the poles with continuous dribbling with the ball, provided that this work leads back and forth until it crosses the starting line, where the time in which he traveled the determined distance is calculated by the method of the previous performance mentioned a moment ago since the issuance of the order to start until the participant and the ball cross the starting line after going and returning (Abdul-Tarifi, 2013:81; Alshukri et al., 2021).

**• Test conditions**

- 1- The participant has the right to use either of the hands in the dribble.
- 2- The ball must be touched during the dribble in a legal manner, according to the terms of the law of the game.

• **Scoring:** The participant is allowed two attempts on the test, provided that the best of them is calculated

**Second: Static Equilibrium Tests:**

**Test Name: Metatarsal Stand Test**

**Purpose of the test:** To measure static balance, when the participant is standing on the floor with the instep of the foot (Kzar & Hadi, 2017).

**Tools needed:** Stopwatch or wristwatch with seconds hand.

**Description of performance:** The participant takes a standing position on one foot, preferably the stepping foot, then he places the foot of the other free leg on the inner side of the knee of the man on which he is standing (Hadi & Kzar, 2016).

- When the start signal is given, the participant raises its heel off the ground and maintains its balance for maximum for as long as possible without moving the limbs of his feet or touching his heels on the ground (Hassanein, 2001; Al-Taie et al., 2017).

**Test instructions:** The test is performed without shoes. The hands must be kept firmly in the middle. The test period ends when moving the ends of the

foot from its position or when touching the ground with the heel of the foot, three attempts are allowed.

**Test management**

Referee: Gives the start signal, monitors performance, and calculates time.

Recorder: Calls the participants and records the results.

**Calculation of grades**

The best time is calculated for three attempts, which is the time that starts from the moment of lifting the heel off the ground until making some performance errors and losing balance.

**Third: The Test is Jumping on the Numbered Circles :**

The purpose of the test is to measure the compatibility of the legs and eyes (the ability to assess posture)

The tools used / stopwatch / draw eight circles on the ground, each with a diameter of 60 cm. The circles are numbered as shown in figure (3)

**Performance specifications:** The player stands inside the circle number one, and when she hears the start signal, she jumps with both feet to circle no. 2, then to circle no. 3 and so on to circle number 8 and does that at full speed.

Recording Records the time it took for the player to move through eight circles(Hassanein, 2000:254).

**Fourth: The Test is Peaceful Shooting from the Front, Sideways and at a Distance of (3 M).**

• **The purpose of the test:** measuring the accuracy of the skill of peaceful shooting from the front to the side at a distance of (3 m).

• **Necessary equipment:** a mini basketball court, a mini basketball goal, two poles, 50 cm high, and a whistle.

• **Performance specifications:** The participant stands in front of the basket board, then starts to take the ball placed on the palm of the test-taker and performs the peaceful shooting, then returns from the other side to the other side with the peaceful shooting secondly after its rotation behind the person placed on the sides and so on for (10) attempts (5) from the left and (5) from the right and so on by continuing, noting that the balls placed on the palm of the test-takers are 3m away as shown in the figure(Al-Tamimi, 2013:43).

**• Test conditions:**

♣ The participant is granted (10) attempts, distributed (5) attempts from each side.

♣ It is required to legally perform the peaceful correction.

• **Scoring:** For each successful attempt at shooting, one point is counted. The highest score obtained by the participant is (10) points.

**The Exploratory Experiment**

The two researchers conducted an exploratory experiment on Monday, 22/3/2021, on a sample of female students of the first stage - the College of Physical Education and Sports Sciences for Girls, numbering (10) students, before doing their research with the aim of choosing research methods and tools.

**Pre-Tests**

The two researchers conducted pre-tests before starting the educational curriculum, which included tests (the ability of motor linkage and balance, the ability of estimating the situation and peaceful shooting) on Wednesday at ten o'clock in the morning on 3/24/2021 in the hall - College of Physical Education and Science sports for girls

**Teaching According to the Kemp Model**

Teaching was applied by designing education according to Kemp's model on the members of the experimental group within the educational units prepared for basketball, the first stage, which amounted to (6) educational units at a rate of one unit per week at a time of (60) minutes for one educational unit, as the teaching continued for (6) weeks, while The controller group is taught according to the approved educational method followed by the subject's teachers.

If teaching for the experimental group began on Sunday, 3/28/2021. The educational units included the vocabulary of educational content by designing education with teaching methods to present the theoretical educational material, including cooperative learning, and the advantages that this method possesses that help learners cooperate and work together, and thus teach them according to their characteristics and capabilities. The use of exercises with appropriate repetitions and teaching aids according to the characteristics of learners and their needs to acquire and learn harmonious and skill abilities within the practical educational units.

**Post-Tests**

The two researchers conducted the post tests for the sample (experimental and controller group) on Thursday, 3/6/2021, and he followed the same method that he followed in the pre- tests, after completing the prescribed period of the experiment, which lasted (6) weeks, and the researcher was keen to find all the conditions for the pre-tests, and its requirements when conducting post-tests in terms of time, place and test methods.

**Presentation, analysis and discussion of the results**

**Presentation, analysis and discussion of the results of the pre and post tests for the experimental and controller groups**

The researchers deliberately applied the tests to the main research sample for the two groups (experimental and controller) consisting of (10) players for each group (Table 3), (Figures 1,2,3).

**Discussing the Results**

After reviewing the results shown in Table (3), which shows the results of the experimental group in the pre and post measurements of the tests under study and Table (4) which shows the results of the controller group in the pre and post measurements of the same tests, as well as Table (5) which shows the results of the post tests for the two experimental groups And the controller group, it is clear to us that the experimental group had a better level of development than the controller group and that is proven by the results that we found in the above-mentioned tables. The results of the experimental group, which Al-Dulaimi and Al-Waeli (2003:112) mention that "Kemp's model focuses on the learner as the main source for formulating educational goals, and is concerned with the feedback that is based on the results of the pre and post tests and the evaluation process, i.e. the design stages do not stop at the evaluation, but rather employ the results of the evaluation to make adjustments to the objectives and content, and to choose the teaching resources and the evaluation itself.

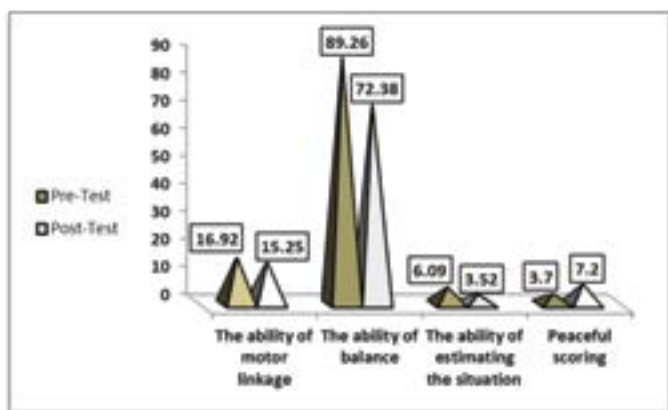
What reinforces this statement is the return to the results of tables (3) (4) (5) and this was confirmed by the fact that the educational design according to the Kemp model has a positive effect on learning skill performance and compatible abilities. The researcher attributes the reason for this to the educational design with the Kemp model and its role in the learning process in the combinatorial and skill capabilities of the research variables. To achieve the teaching and learning processes, the researcher relied on presenting the educational material in an organized manner, based in his work on modern sources for displaying educational pictures and films, as well as training and exercises appropriate to the level of readiness and ability of learners within their general characteristics and repetitions Suitable in practical educational units.

The researcher also confirmed that although shooting plays an important role in determining the results of many matches; As often matches are decided, winning or losing, from above a line of stability, and stability is easy because "the defense and distance variables are fixed." (Al-Mukhtar, 1991; Gumenyuk et al., 2021) This is consistent with what was stated by (Merhi and Al-Heila,

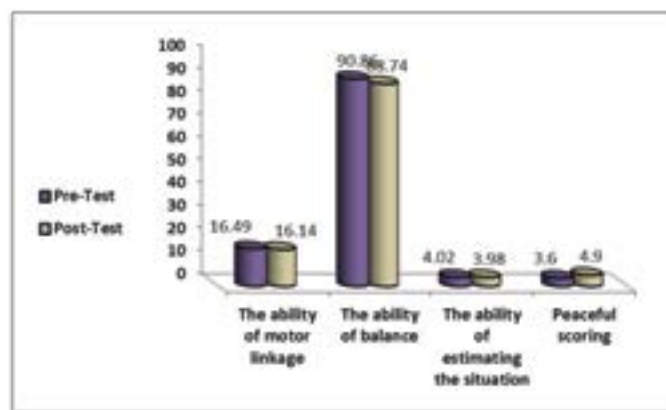
**Table 3:** Presentation and analysis of the results of the pre and post- tests of the group, the ability to link movement, balance and peaceful shooting with basketball.

Statistical Coefficients  Test Name	Unit of Measuring	Pre-Test		Post-Test		Value of counted (T)	Level of Indication	Indication
		M	±Sd.	M	±Sd.			
The ability of motor linkage	Second	16,92	0,91	15,25	0,76	18,07	0,00	Indicative
The ability of balance	Second	89,26	1,59	72,38	1,13	7,84	0,00	Indicative
The ability of estimating the situation	Second	4,09	0,34	3,52	0,35	4,74	0,00	Indicative
Peaceful scoring	Degree	3,70	0,94	7,20	1,03	9,39	0,00	Indicative

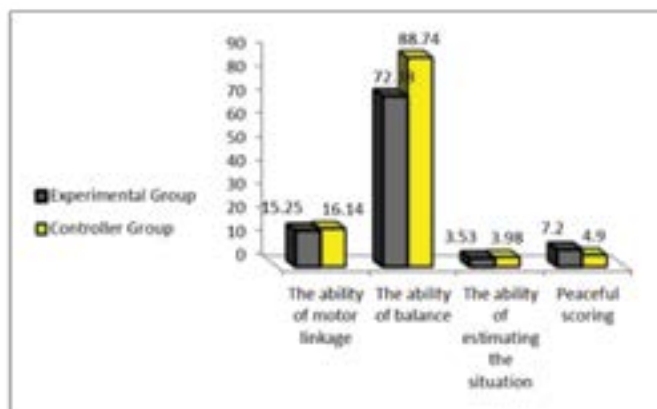
The degree of freedom (n-1) (10-1=9) is statistically significant at the level of significance  $\geq (0.05)$



**Figure 1:** The results of the pre and post-tests of the experimental group show the ability to link movement, balance and ability to estimate the position and the peaceful shooting in basketball.



**Figure 2:** Presentation and analysis of the results of the pre and post tests for the controller group, the ability to link movement, balance and ability to assess the situation and the peaceful shooting of basketball.



**Figure 3:** Presentation and analysis of the results of the dimensional tests of the two experimental and controller groups, the ability to link movement, balance and peaceful shooting in basketball

**Table 4:** The results of the pre and post tests for the controller group show the ability to link movement and balance and the ability to assess the position and the peaceful shooting in basketball.

Statistical Coefficients Test Name	Measuring Unit	Pre-Test		Post-Test		Value of Counted (T)	Level of Indication	Indication
		M	±Sd.	M	±Sd.			
The ability of motor linkage	Second	16,49	0,82	16,14	0,63	3,71	0,00	Indicative
The ability of balance	Second	90,86	1,069	88,74	1,065	2,33	0,00	Indicative
The ability of estimating the situation	Second	4,02	0,36	3,98	0,38	3,25	0,01	Indicative
Peaceful scoring	Second	3,60	0,84	4,90	0,56	3,54	0,00	Indicative

Degree of freedom (n-1) (10-1=9), statistically significant at significance level  $\geq$  (0.05)

**Table 5:** Shows the post tests of the experimental and controller groups, the ability to link movement, balance, and ability to assess posture and peaceful shooting in basketball.

Statistical Coefficients Test Name	Measuring Unit	Experimental Group		Controller Group		Value of Counted (T)	Level of Significance	Significance
		M	±Sd.	M	±Sd.			
The ability of motor linkage	Second	15,25	0,76	16,14	0,63	2,83	0,01	Significant
The ability of balance	Second	72,38	1,13	88,74	1,065	4,72	0,00	Significant
The ability of estimating the situation	Second	3,52	0,35	3,98	0,38	1,10	0,00	Significant
Peaceful scoring	Degree	7,20	1,03	4,90	0,56	5,66	0,00	Significant

2000:32) that “practice and exerting effort through training and continuous repetitions are necessary in the learning process, and training is an auxiliary and necessary factor in the process of the individual's interaction with the skill and controlling his movements and achieving consistency between the movements that make up the skill in a proper and timely successive performance. Continuous training alone increases the development of skill learning.

The educational design according to the Kemp model has a positive effect on the harmonious abilities and learning the skill of peaceful shooting in basketball for first-year students - College of Physical Education and Sports Sciences for Girls.

**Conclusions and recommendations**

**Conclusions**

1- The educational design using the Kemp model contributed to increasing the compatible capabilities and learning the skill of peaceful shooting in basketball for first-year students - College of Physical Education and Sports Sciences for Girls

2- The appearance of development in the results of the post-test in the compatible abilities (the ability to motor linkage, the ability to balance, the ability to estimate the situation and the skill of peaceful shooting in basketball)

3- There are significant differences between the pre and post tests for the post tests of the research variables for each of: (the ability to motor linkage, the ability to balance, the ability to estimate the situation and the skill of peaceful shooting in basketball)

**Recommendations**

1- Working on organizing the content of the subject with an educational design according to the steps of the Kemp model and in a manner that is appropriate and achieves the educational goals set.

2- Conducting various research and studies to compare the Kemp model with other models or with the various educational methods to find out.

3- Conducting similar studies for different age groups using educational design according to the Kemp model and with various teaching methods

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