



## **Impact Of Educational Units Based On S.A.M.R Model On Students ' Cognitive Development And Learning Of Some Offensive Basketball Skills**

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### **Abstract**

This study aimed to develop educational units based on SAMR model, focusing on knowledge acquisition and some offensive basketball skills. It also aimed to identify impact of these units on the studied variables. The researcher employed an experimental design with two equivalent groups using pre- and post-tests. The study was conducted with 40 second-year students from College of Physical Education and Sports Sciences at Al-Mustansiriya University during the 2024-2025 academic year. The researcher selected offensive skills from the curriculum, including chest passes, high dribbles, and stationary shots. Based on these skills, the researcher assessed the students' knowledge acquisition. The educational units were implemented over eight weeks. After the implementation and data collection, the researcher drew several conclusions, the most important of which are: SAMR model The method used contributed positively to students gaining knowledge and learning to perform some offensive basketball skills , as well as the SAMR model . He may have surpassed the traditional method in terms of cognitive achievement and learned to perform some offensive basketball skills . Furthermore, the educational techniques employed in a structured and sequential manner through the SAMR model were utilized. It has contributed to making the learning process easier for students and acquiring knowledge more effectively.

**Keywords:** Educational Units, R.S.M Model, Cognitive Development, Offensive Skills, Basketball.

## **Introduction**

Many specialists and those interested in the field of learning and teaching see the necessity of the difference in learning processes and the learner himself between yesterday and today, as this difference is due to the environment and the development that has accompanied the learner, which has affected his mental abilities, which have developed remarkably, especially during recent years. This has led researchers and those interested in this field to resort to using modern educational and teaching methods that take into account and keep pace with this development in order to achieve maximum effectiveness in the learning process by optimally delivering information from the person carrying out the educational process to the learner through the tools specific to the educational material. Therefore, learners are in dire need of using educational methods, approaches and models that meet their needs and suit their mental abilities and contribute to the learning process in a better and faster way by providing the best level of performance of the skills of sports.

It is also known that educational units are the building blocks or mini-units through which the educational goal is built, achieved, followed, and consistent through the contents of the educational curriculum. Moreover, each educational unit has its educational purposes from a behavioral perspective (motor, cognitive, affective). The educational unit also represents the most important part of the total parts of the educational curriculum through what it provides in terms of experiences and all educational and pedagogical materials.

Many modern teaching models have been designed to keep pace with the civilized world and its requirements, while at the same time providing a positive and appropriate impact on the capabilities of the human mind. Therefore, organized efforts have begun to educate and employ these models by designing programs that meet the learner's needs and seek to align educational situations with the characteristics, needs, and abilities of each learner, through technological development in general, and educational and learning technology in particular. Therefore, educational technology and the real opportunity for learning it provides has become able to meet and achieve many educational goals related to educational content. Educational technology is a method of teaching through the use of modern educational models by displaying images, drawings, videos, technological search mechanisms, and internet portals, whether remotely or in the classroom.

SAMR model is one of the educational models that rely entirely on the integration of educational technology. It works to raise the level of activity and increase educational benefit from 3-4 educational levels in which the learner moves from the lower level to the higher level in designing educational objectives. There is no requirement to use one or two levels or all of them, except for the behavioral objectives of the lesson content .

One of the priorities for achieving good skill performance is having a good grasp of the details of the skill and performance. This constitutes an important necessity in paying attention to the cognitive aspect through which a motor program specific to the skill is generated, as the learner's cognitive output appears as a mirror reflecting the performance. Therefore, the better, more known, and more accurately detailed the learner's cognitive output is through a good educational method or model, the better and error-free the performance will be.

And it is game ball Basket One of the games that requires learning its skills accurately, especially the offensive ones, since the element of mastering the skill and the result of the performance is limited to the accuracy that requires putting the basketball into the hoop, and this requires great efforts from those in charge of the learning process to reach mastery of the performance according to the required speed and accuracy.

Hence, the importance of the study emerged in the researcher's endeavor to take serious interest in educational technology and make it one of the first necessities of the educational process, due to its positive effects on the learner and the human mind, which has become built on this technology and can be achieved in the field of learning, especially in the sports field. Therefore, the researcher sought to employ the ( SAMR ) model and its effect on the possibility of achieving the benefit in acquiring good knowledge and learning some offensive skills in basketball for students of the College of Physical Education and Sports Sciences / second stage at Al-Mustansiriya University.

## **Research Problem**

Charge of the educational process in Education Sports Especially in Institutions Educational familiarity and knowledge Latest Methods and methods that maybe Through it, employment Educational strategies and models in Learning In what Investigates Advancement At the level Students and players about The best Perhaps one of Educational models Modern It is the use of the SAMR model, which relies heavily on educational technology and its integration, which generates positive opportunities in acquiring good knowledge for learners. Hence, the problem of the study emerged through the researcher's experience as a physical education teacher in the education sector, especially teaching basketball, in addition to conducting several personal interviews with physical education teachers in more than one college in Baghdad. She noticed and found that there is a lack of interest in adopting modern methods and models that take into account the use of technology in education, especially in teaching some scientific subjects such as basketball, and investing these methods and models in teaching some sports skills, especially offensive skills in basketball. This prompted the researcher to seek to highlight this real problem, which is likely not primarily caused by the teacher, as there are no infrastructures and tools that enable the teacher to use them in the learning process. On the other hand, there has become an urgent need for educational technology to be a necessary requirement for learners and those in charge of the educational process in all stages of university education to raise the level of efficiency of the educational process and its outcomes.

Hence, the researcher decided to use educational units in a model ( SAMR ) in the cognitive achievement and learning some offensive basketball skills for students

### **Research Objectives**

1. Preparing educational units according to the ( SAMR ) model in the cognitive outcome and teaching some offensive basketball skills to students.
2. Identifying the impact of educational units according to the ( SAMR ) model on cognitive achievement and learning some offensive basketball skills among students.
3. Identifying the superiority of the two methods ( SAMR model ) for the experimental group and the method followed for the control group in terms of cognitive achievement and learning some offensive basketball skills among students.

### **Research Hypotheses**

1. There are statistically significant differences between the pre-tests and post-tests of the experimental and control groups in the students' cognitive output and learning of some offensive basketball skills.
2. There are statistically significant differences in the post-tests between the experimental and control research groups in cognitive achievement and learning some offensive basketball skills for the students.

### **Defining the terms**

Model SAMR: (Lubega T. Jude & OTHER:2014) It is an abbreviation for Substitution, Augmentation, Modification, and Redefinition. It is a model for integrating technology in education, designed by Dr. Ruben Puentedur. It is a level of technology integration in education, and this model is characterized by being a model based on four levels, moving from the lower level to the higher level. It is similar to Bloom's classification of cognitive objectives.

Substitution is the level at which traditional teaching tools (pen and blackboard ) are replaced by computers and software to perform the same tasks. Augmentation is the level at which technology is used as an effective tool for performing common tasks. Amendment ( Modification and It is the level at which technology is used to share tasks with others and in implementation, and it can also provide feedback and peer sharing within the classroom. Redefinition: At this level, technology is used in an innovative way to achieve high-level goals and skills that would not have been possible without these technologies.

### **Materials and Methods**

The researcher adopted an experimental design with two equivalent groups (control and experimental) with a pre- and post-test to measure the effect of the independent variable .

Program application	Groups
SAMR model	empiricism
The method used by the course instructor	The officer

### Research community and sample

The researcher identified the research population as second-year students in the College of Physical Education and Sports Sciences / Al-Mustansiriya University for the academic year 2024-2025, totaling 242 male and female students. The researcher excluded 52 female students because they had another instructor for the subject, as well as excluding 6 male students due to repeated absences and expulsion, and 4 male students because they were practicing players and represented clubs. Section C and Section D were deliberately chosen because the study schedule was suitable for the researcher and under the supervision of the same instructor. Therefore, the two research groups were chosen randomly by lottery, with 20 students from each section being selected to represent the research sample in a random manner, ensuring the sample's equivalence in the study variables. Section C represented the experimental group, and Section D represented the control group.

1. The experimental group : learned using the SAMR model.
2. Control group : learned using the teaching method approved by the subject instructor .

### Homogeneity and equality among members of the sample

To ensure the equivalence of the two research groups, a pre-test was conducted on the variables (age, height, weight, and performance level in the passing skill), and appropriate statistical methods were used to ensure that there were no statistically significant differences, indicating the equivalence of the two groups before the experiment was implemented .

**Table 1.** The homogeneity of the research sample is demonstrated by the skewness coefficient in the variables of height, weight, and chronological age.

Variables	unit of measurement	Mean	Median	St.d	Torsion coefficient
Height	cm.	175.5	176	0.595	0.836
Weight	Kg.	69.6	68	0.454	0.596
Chronological age	Year	20.44	21	0.297	0.120

**Table (2).** Equivalence Between The Two Research Groups In The Study Variables Is Shown.

no.	Variables	Experimental group		Control group		(t) value	Sig. level	Sig. type
		M.	St.d	M.	St.d			
	Knowledge base	11,48	3.597	11.451	3.032	0.486	0 , 189	Sig.
	Chest passing	13.022	0.995	12.87	0.890	0.471	0.643	Sig.
	Patting High	8.86	0.658	8.94	0.583	0.281	0.782	Sig.
	Correction from Steadfastness	3.92	1.005	3.98	1.086	0.318	0.128	Sig.

### Means and tools used

The researcher relied on the following methods and tools: ( Specialized scientific sources and references , a legal volleyball network , ( 10 ) basketballs , metric measuring tape . Drawing tools and floor markings , Grade registration forms , A video camera for documenting performance (when needed) , An educational program designed according to the SAMR model.

## Field Procedures for Research

### Defining Research Tests

First: Test of passing and receiving the ball towards the wall ( <sup>Ali</sup> Salloum: 2004, p. 85)

1. The purpose of the test : to measure the speed of handling and receiving the ball (direct chest pass).
2. Tools used : Smooth wall, measuring tape, (2) regulation basketballs, electronic timer, chalk, whistle to give the start and end signal.
3. Test procedure: A line is drawn on a smooth wall 90 cm from the edge of the floor, then a starting line is drawn on the floor parallel to the wall at a distance of 2.70 m from it.
4. Test procedure : The test subject stands directly behind the starting line holding the ball in his hand. When the starting signal is given, the test subject passes the ball (chest pass) quickly towards the smooth wall and receives it after it bounces. The test subject continues to repeat the performance for (10) consecutive passes.
5. Test conditions and instructions: The ball must not touch the ground for all 10 handlings, and the tester must not cross the starting line during the performance, while the tester is allowed to touch the ball to the smooth wall when it is above the line drawn on it.
6. Scoring : The time used by the player in performing the test is calculated and recorded from the moment the ball touches the wall in the first successful pass until the ball touches the wall until the tenth successful pass.

**Second: Test of the high starting point of the tapping by changing direction between (6) Signposts.** (Mustafa Zaidan, 1999, p. 152).

1. The purpose of the test : To measure the speed of patting by changing direction.
2. Equipment used: Basketball court, electronic timer, basketball, chalk, adhesive tape (1.5 m) as a starting line, whistle.
3. Test procedures: The dimensions for the test are drawn according to the positions of the 6 markers at the starting line as follows: (A tape with a length of (1.5 m) is placed on the ground, and then two points are marked at its ends, for example, (A, B). The first marker must be (1.5 m) away from the starting line and facing the starting line, while the second marker is (2.40 m) away from the first, and so on for the remaining four markers, meaning the distance between the sixth (last) marker and the starting line is (13.50 m)).
4. Test procedure: The test subject, with the ball, takes the ready position from the high start behind the starting line at point (A). When the starting signal is given, the test subject runs with the ball while stomping, changing direction between the markers. Then the player turns and runs around the last (sixth) marker, continuing to stomp the ball while changing direction and running until he crosses the finish line at point (B) with the ball.
5. Test conditions and instructions: Each tester has only one attempt.
6. Scoring: The time taken by the test-taker from the moment the start signal is given until he crosses the finish line at point (B) is calculated.

**Third: Test of shooting from a stationary free throw line (10 throws) (Ali Salloum: 2004, p. 74)**

1. The purpose of the test: To measure the accuracy of shooting from a stationary position with a basketball.
2. Equipment used: Basketball court , basketball goal , basketball (2) balls.
3. Test procedure : The test subject assumes a standing position with the ball behind the center line of the free throw line, then the test subject performs the test on two groups, each consisting of (5) Consecutive throws .

4. Test conditions and instructions : The tester is entitled to score at the basket in any suitable manner , and each tester has only one attempt .
5. Scoring: Scores are calculated and one score is recorded for each successful throw (the ball enters the basket), while no score is recorded for the player when the ball does not enter the basket (failure). The player's score is the sum of the points he obtains in the ten throws.

#### **Fourth: Cognitive achievement test :**

The researcher relied on the cognitive achievement scale prepared by (Ahmed Ghanem Khudair: 2021) as it is the closest to the study in terms of the age group and educational level of the sample and the skills studied, in addition to it being applied in the Iraqi environment and modern, as the scale consists of 30 items distributed as 11 questions about chest handling, 12 questions about patting, and 7 questions about aiming from stability, as the total score for the test is 30 points, i.e. one point for each question.

#### **The two exploratory experiments**

The exploratory experiment was conducted by the researcher and her assistant team at the basketball court of the College of Physical Education and Sports Sciences / Al-Mustansiriya University, on a sample of 5 students who were randomly selected from outside the research sample. The aim of it was to identify what obstacles or difficulties the researcher might face while conducting the cognitive achievement test and some offensive skills in basketball, and to identify the time of the tests and how to manage them, as well as to identify the extent of the assistant team's understanding and comprehension of how to manage the tests and record the data, in addition to identifying how to explain and answer the cognitive achievement test and how to answer it.

As for the second exploratory experiment, the researcher conducted it in accordance with and accompanied by the assisting work team on the members of the experimental sample as an introductory lecture on the model used, the SAMR model , in order to explain and know how to employ the stages of this model and how to perform it during the educational unit and what is required of the members of the experimental group in the educational unit. The researcher concluded the possibility of applying the SAMR model as it was suitable for the members of the sample and the researcher's ability to apply it in terms of time and educational material.

#### **Main Experiment**

##### **Pre-tests**

The researcher, along with members of the assisting team, conducted the pre-tests on the experimental and control groups over two days, corresponding to 17-18/11/2024. The first day included a cognitive achievement test in the classrooms of the College of Physical Education and Sports Sciences / Al-Mustansiriya University. The researcher took into account the conditions that must be implemented at nine o'clock in the morning, as it was the first lecture and was not preceded by any practical lecture that might affect the thinking and mind of the students. As for the second day, only the skills tests specific to the study were conducted, on the basketball court of the College of Physical Education and Sports Sciences / Al-Mustansiriya University at ten o'clock in the morning. The assisting team took into account all the conditions that must be implemented, such as emphasizing general and specific warm-ups, as well as the correct application of the conditions of each test after they explained it. sig value for it and for all variables was less than 0.05, thus ensuring that there were no differences between them.

#### **Educational Units according to the SAMR model**

The researcher prepared the learning units according to the stages of the approved educational model, relying on the scientific foundations upon which the model was based, as well as studies that addressed this model. The researcher also considered the skills being studied in these units, the educational content, the students' cognitive level and practical performance, and the time allocated for the lecture. The learning units, as prescribed by the College of Physical Education and Sports Sciences at Al-Mustansiriya University, consisted of one learning unit per week, totaling 90 minutes. This included 15 minutes for the introduction, general and specific warm-ups, and other organizational matters; 30 minutes for the theoretical aspect; 35 minutes for the practical application of skills; 5 minutes for the concluding aspect; and 10 minutes for organizational and administrative matters related to the lesson, such as bringing and returning equipment. The researcher ensured the distribution of the model's stages according to the sections of the learning unit as follows :

1- The first stage included the (replacement) stage (8-10 minutes) , which was the first stage of the main section, through which the material is explained and clarified through some modern educational means such as data projectors, some video clips and pictures that show the stages of performing the skill, how to perform it, and the mistakes that the student may make when performing it, replacing the traditional teaching process that is represented by the blackboard and pen.

2- The second stage included the (increase) stage (4-5 minutes):

This stage involved increasing and deepening the technological learning process by showing some video clips and flash clips that illustrate the learning process, how to break down the skill, and the most important steps to follow during the learning process, focusing on the body's actions at each stage of performing the skill, with the instructor explaining the theoretical and scientific aspects. The image becomes complete for the learner through building a complete motor program in the brain.

3- The third stage included the (modification) stage (6-8 minutes): In this stage, the instructor divides the students again into cooperative groups, and gives them some tasks to be carried out, such as presenting a question as a brainstorming exercise, which requires each group to answer it thoroughly, or presenting several questions that are discussed by the groups, or presenting a set of pictures, and each group is required to identify the errors contained in the content, then re-discussing and presenting ideas and opinions and clarifying the correct answer to consolidate the information and correct some of the incorrect information that came within the answers of the cooperative groups.

4- The fourth stage included the (redesign) stage (5-7 minutes ). This stage is performed after the completion of the practical application stage, i.e., after performing and applying the educational exercises. This stage contributes by redesigning the educational content through several methods such as self-examination and the GUZ test , or through a competition between the same groups by repeating the main points of the lesson and emphasizing them as a review for them to enhance the cognitive educational content after performing the practical aspect of it.

**Practical aspect (35) minutes**

The practical part of the skill is represented after the completion of all three first stages related to the theoretical aspect, by involving the students in performing the required exercises (educational exercises prepared by the teacher and applied by the experimental and control groups in the same manner and repetition), as the teacher can use all the methods of teaching physical education that are suitable and appropriate for the performance of the skill without any intervention from the researcher.

The educational units were given on Wednesday of each week to the experimental group, with the second lecture preceded by a theoretical lecture, while the educational unit for the control group was also given on Tuesday of each week, also preceded by a theoretical lecture. This continued for 8 weeks, as it included the educational units, with the first educational unit being on Tuesday (20/11/2024) and the last educational unit being on Tuesday (15/1/2025).

**Post-tests**

After completing the educational units, the researcher conducted post-tests to test the knowledge base and some offensive basketball skills under study over two days (January 19 and 20, 2025), taking into account the same temporal and spatial conditions as in the pre-tests.

**Results**

Present the findings of the study clearly and systematically using tables, figures, percentages, mean scores, statistical

**Presenting, analyzing, and discussing the results of the pre- and post-tests for the two research groups.**

**Table 3.** Shows The Arithmetic Means, Standard Deviations , T -Value And Error Level In The Cognitive Outcome And Tests Of Some Offensive Skills Under Study For The Experimental Group SAMR Model In Pre- And Post-Tests.

No.	Test	Pre-test	Post-test	(t) value	Sig. level	Sig. type
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		M.	St.d	M.	St.d			
1	Outcome cognitive	11,486	3.597	20.697	4.618	8.578	0.000	Sig
2	Chest passing	13.022	0.995	10.808	2.587	6.988	0.000	Sig
3	Patting High	8.86	0.658	7.396	0.43	4.698	0.002	Sig
4	Correction from Steadfastness	3.92	1.005	6.22	1.795	6.589	0.000	Sig

**Table 4.** Shows The Arithmetic Means, Standard Deviations , T -Value And Error Level In The Cognitive Outcome And Tests Of Some Offensive Skills Under Study For The Control Group (The Method Used) In The Pre- And Post-Tests

No.	Test	Pre-test		Post-test		(t) value	Sig. level	Sig. type
		M	St.d	M.	St.d			
1	Outcome cognitive	11.451	3.032	17,820	4.093	7.597	0.000	Sig.
2	Chest passing	12.87	0.890	11.05	2.017	3.698	0.036	Sig.
3	Patting High	8.94	0.583	8.02	0.387	2.957	0.289	Sig.
4	Correction from Steadfastness	3.98	1.086	4.83	1.091	4.608	0.002	Sig.

Tables ( 3 ) and (4) show significant differences in the pre- and post-tests for both groups, favoring the experimental group. The researcher attributes these differences to the positive impact of the adopted model, the SAMR model , through which educational units were implemented. This model contributed to a noticeable improvement in the learning process. The researcher attributes this improvement to the nature of the model, which aims to develop the learner's mental and cognitive abilities by employing technology in education. This is achieved by shifting the teaching process from the traditional method to an educational model like SAMR, which integrates the theoretical aspects of skills with technological knowledge. This is done by enhancing knowledge related to the educational content using technology and multimedia, making the learning process organized and sequential. It allows for progression from easy to difficult and expansion of knowledge according to the model's stages, from generalities to specific information. This is what the SAMR model encompasses , and it is what Muhammad Saad Zaghoul (2001) emphasized, stating that the educational method used in modern educational media and its components... Various capabilities contribute to increasing the effectiveness of the teaching method used. Moreover, they contribute to increasing the learner's positive motivation towards the educational content, and to making it exciting and stimulating for learners, and motivating them to acquire experiences and knowledge more effectively, as they make the lesson more dynamic, and thus reflect on the learners in the form of different and cumulative experiences. (Muhammad Saad Zaghoul: 2001, p. 32)

The researcher attributes the improvement shown by the control group in their knowledge base and skills in chest passing and shooting from a standstill to the role of the instructor and their ability to convey educational content to the students through their scientific and field experience and the use of teaching methods to build knowledge about these skills in terms of the skill, its details, how to perform it, and the importance of each stage of performance. This is in addition to the effectiveness of the choice of exercises, which in turn contributes to improving the performance and learning of the skill. The researcher also attributes this improvement to the consistency of the sample members and the repetition of the exercises given to the students during their performance. The researcher believes that all of the above are reasons that made the control group members improve their performance in some offensive basketball skills and their knowledge base in the post-tests. This is what was confirmed by (Dhafer Hashem: 2002) : "It is a natural phenomenon of the learning process that an improvement in the level of learning can occur as long as the instructor follows the correct basic steps." To learn, teach, practice , repeat the correct performance, and focus on continuous repeated attempts until the performance is established and stabilized. (Dhafer Hashem: 2002, p. 102)

#### **Presentation and discussion of the differences in post-tests between the two research groups.**

**Table 5.** Shows The Arithmetic Means, Standard Deviations , T- Value , Error Level, And Significance In The Cognitive Outcome And Some Basketball Offensive Tests For The Post-Test Between The Two Research Groups

No.	Test	SAMR model		Used method		(t) value	Sig. level	Sig. type
		M.	St.d	M.	St.d			
1	Outcome cognitive	20.697	4.618	17,820	4.093	5.540	0.000	Sig.
2	Chest passing	1	2.587	11.05	2.017	3.698	0.031	Sig.
3	Patting High	7.396	0.643	8.02	0.387	2.821	0.046	Sig.
4	Correction from Steadfastness	6.22	1.795	4.83	1.091	4.227	0.001	Sig.

Table (5) shows an improvement in cognitive achievement and some offensive basketball skills in the post-test, favoring the experimental group over the control group. The researcher attributes these significant differences to the effectiveness of SAMR model, which aims to move away from traditional and stereotypical teaching methods, particularly in the cognitive aspect, and replace them with a model that keeps pace with modernity and technology. This is achieved by replacing traditional methods with data projectors, videos, and illustrative images. The educational content utilizes technological tools, which in turn greatly enhances learner motivation and knowledge acquisition in an organized and sequential manner, contributing to improved learning outcomes. The four stages of the SAMR model are designed to ensure a structured and non-random learning process through proper planning of the educational content presentation and its integration across stages. This ensures that learners acquire information more clearly and accurately, as the information is presented and viewed directly by the learner. Furthermore, the second stage clarifies concepts and information precisely by breaking them down and explaining each part using modern learning methods that incorporate educational technology, thus deepening the learning process. Learning and its lasting impact on the learner, thus raising their level, is what Ismail Abdel Zaid et al. (2019) emphasized. The more the instructional design provides the teacher and learner with a technologically based teaching-learning environment, the more it helps the learner to successfully deliver the educational content and, moreover, equips the learner with the necessary learning competencies. (Ismail Abdel Zaid et al., 2019, p. 116). A 2016 study also indicated ... Hamilton et al . and Patton (2015 ) studied the importance of integrating technology based on a model such as the SAMR model for educators who employ technology in education as a type of skills teaching and its impact. The positive impact on learners is due to the positive effects that technology has on learners, such as motivation, desire, and excitement, as well as the possibility of increasing the understanding process by stimulating mental processes, thinking, and deduction in a deeper and more accurate way.

The researcher also attributes the SAMR model's contribution to providing learners with a general framework that integrates technology into education. This model relies on ( switching, increasing , modifying, and redesigning) and allows for the evaluation of the technology used. Furthermore, it includes objectives such as providing learners with tasks that contribute to developing higher-order thinking skills and engaging them in learning experiences. Rich in knowledge and skills. ( Hilton, J. 2016 , p. 71). The researcher also believes that the SAMR model contributes significantly to the cognitive-motor aspects of the skill through the four stages of the model, which ensures a good and thorough construction of the motor program in the brain by inputting and arranging information in a good way, which contributes positively to the practical side by sending accurate information about the movement according to its requirements. This is what was emphasized and what was indicated by (Marwan 2000), that “motor development is very necessary in learning and developing skills, especially if this development is

linked to the intellectual aspect resulting from the linguistic explanation and clarification of the motor skill” (Marwan Abdul Majeed and Jassim Muhammad: 2000, p. 205). The model significantly contributed to improving knowledge through cognitive acquisition. The researcher sees its effectiveness in the two stages of substitution and augmentation, as the first two contributed to presenting information related to the educational content in a different way by providing it with multimedia, explanations, and other images. This, in turn, enhances the learner's role in receiving information in an unconventional manner. Furthermore, the second stage contributed significantly to restating and reinforcing the content with other segments and technological educational media with concepts more specific to the skill. This generates additional knowledge for the learner and connects it to the information received in the first stage. Consequently, the learning process becomes more comprehensive and interactive for the learner, which is reflected positively in learning outcomes. This was also pointed out by Ayesha Zaitoun (2007), who stated that employing educational strategies and models, which contribute to providing information and facts representing knowledge in its various aspects and applying them practically, along with the interaction between the learner and the educational material, yields positive results in the learning process (Ayesha Zaitoun, 2007, p. 24).

## **Conclusions**

SAMR model and used method contributed positively to students gaining knowledge and learning to perform some offensive basketball skills. SAMR model He may have surpassed the method used in terms of knowledge acquisition and learned to perform some offensive basketball skills. Systematic and sequential application of educational technologies through the SAMR model has contributed to making the learning process easier for students and acquiring knowledge more effectively. Shares SAMR model Creating an effective learning environment and diverse learning methods through its four stages once and through educational technology again, which contributed to student interaction and increased knowledge.

## **Recommendations**

Need to use modern educational strategies and models, especially the SAMR model , due to its effectiveness in learning some mathematical skills. Necessity of employing technology and multimedia in the learning process due to their positive impact on the learning process. Conduct further research on other skills and activities using the SAMR model. Conduct further research and compare the SAMR model with other educational models and determine its effectiveness.

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