



The effect of an educational approach according to the Schmuck model in testing cognitive information processing and learning some basic football skills for students

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Abstract

Advanced nations put a lot of effort into implementing different models, ideas, and instructional practices that help athletes reach greater heights in their chosen sports. They use contemporary methods to improve their physical and motor capacities, which helps them acquire skills for a variety of situations. The importance of research resides in testing and applying the strategies of the Schmuck educational model as a legitimate scientific undertaking. The primary focus of the research is the uneven acquisition of fundamental football abilities among first-year students at Wasit University's College of Physical Education and Sports Sciences. The goal of the project is to create an educational program based on the Schmuck model that will assess students' cognitive information processing and their acquisition of fundamental football abilities. It also aims to comprehend how the Schmuck model-based instructional program affects students' cognitive information processing and their acquisition of fundamental football abilities. The findings show that the Schmuck model-aligned educational program significantly and successfully improved pupils' ability to comprehend information. It is mentioned how the Schmuck model-based instructional program improves two important abilities for which research has been done: ball control and scoring. The Schmuck model must be incorporated into curricula for students at the College of Physical Education and Sports Sciences, according to recommendations.

Keywords: educational approach, football scoring skill, football control skill.

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Introduction

Advanced countries in sports use many strategies, educational models and theories that contribute to bringing the athlete to the highest levels to achieve sports achievement in the specialized event. Many modern techniques have been used to improve mental and motor abilities that work to develop skills in various events.

Preparing an educational curriculum that helps students memorize and remember information and how to prepare for exams using an educational model represented by the Shamk model and the cognitive processing test to learn basic skills in football, as motor learning is one of the important sciences in the sports field and is directly related to the student's performance; This is because it is a set of mental processes that occur during exercise that help the student change his motor behavior, and that any development in any area of life that a person seeks to reach must invest all the possibilities and capabilities that are specific to that area to reach that development, so the teaching methods adopted by teachers and specialists in the sports field to reach the highest levels must be coupled with following modern effective educational strategies and correct scientific thinking that leads to increased interaction between learners and the skills to be learned, as learners in various sports have an educational goal to master the technical performance of those skills and when the teacher chooses a specific strategy to develop learners' performance, it must be appropriate to the characteristics and capabilities of learners and thus the goal of the learner today is how to control, store and memorize information, and how to search for it and access it is more important than all of this to help learners learn those skills, and this is done by relying on many strategies, including (the strategies adopted in the Shamk scale, which are the strategies of organization, classification, analysis, application, retention and recall of information, evaluation and criticism of information, study, preparation for the exam and its performance of the learned skills) which are One of the most important things that the learner must learn is represented by these strategies in the mechanism through which the learner learns and how he employs his mental processes in learning, remembering, thinking and solving problems (Abdul Hussein, 2015, p. 123)

Based on the researcher's background as a former football player and his observation of some problems in learning basic football skills for some players, he developed the idea of solving these problems. After presenting this idea to the supervisors, the researcher concluded by using the cognitive processing strategy included in the Shamk model to improve skills among players. Teaching using Shamk model strategies also adds a degree of excitement and freedom to students and reduces boredom and routine (Iqbal Abdul Hussein, page 97).



Methodology

The researcher used the experimental method by designing two equivalent groups with a pre-test and post-test, due to its suitability to the nature of the problem.

Research community and sample

The research community was determined intentionally, represented by first-year students in the College of Physical Education and Sports Sciences at Wasit University, numbering (124) students, represented by four departments (A, B, E, D), in order to suit the sample to the research problem. Department (A) was excluded because it represents only female students, numbering (20) students, and postponed and failed students were excluded from the remaining departments, numbering (4) students. The research sample was selected from among the departments randomly by drawing lots, and two departments were selected from a total of four departments, which are Departments (E, D). After conducting the equivalence test, whichever is the control and the other experimental, will be chosen by drawing lots, as the number of students in the control group was (20) students and the experimental group was (20) students. The exploratory experiment sample was determined, numbering (10) students.

Devices used in the research:

Test name

Targeting test on overlapping rectangles drawn on the wall.

Test objective

Measuring the accuracy of targeting.

Tools

A smooth wall on which three overlapping rectangles are drawn, with the following dimensions:

- The large rectangle with a length of (140 cm and a width of 100 cm).
- The middle rectangle with a length of (100 cm and a width of 80 cm).
- Small rectangle (80 cm long and 60 cm wide).
- Draw a line on the ground (6 m) away from the wall, (5) soccer balls.
- Colored adhesive tape for each rectangle to designate the scoring area for the test.

Description of performance

(5) soccer balls are placed (6 m) away from the target, and the tester hits the ball towards the overlapping rectangles drawn on the wall in the test according to their importance and difficulty. As shown in Figure (1).

Performance conditions

The test starts with ball (1) and ends with ball number (5).

Scoring method

The number of balls that enter the targets or touch their sides is calculated as follows:

- (3) points when scoring in the small inner rectangle.
- (2) points when scoring in the middle rectangle.
- (1) points when scoring in the large rectangle.
- (Zero) outside the scoring limits.
- The tester is given five attempts.

The maximum score for the test is (15) points.

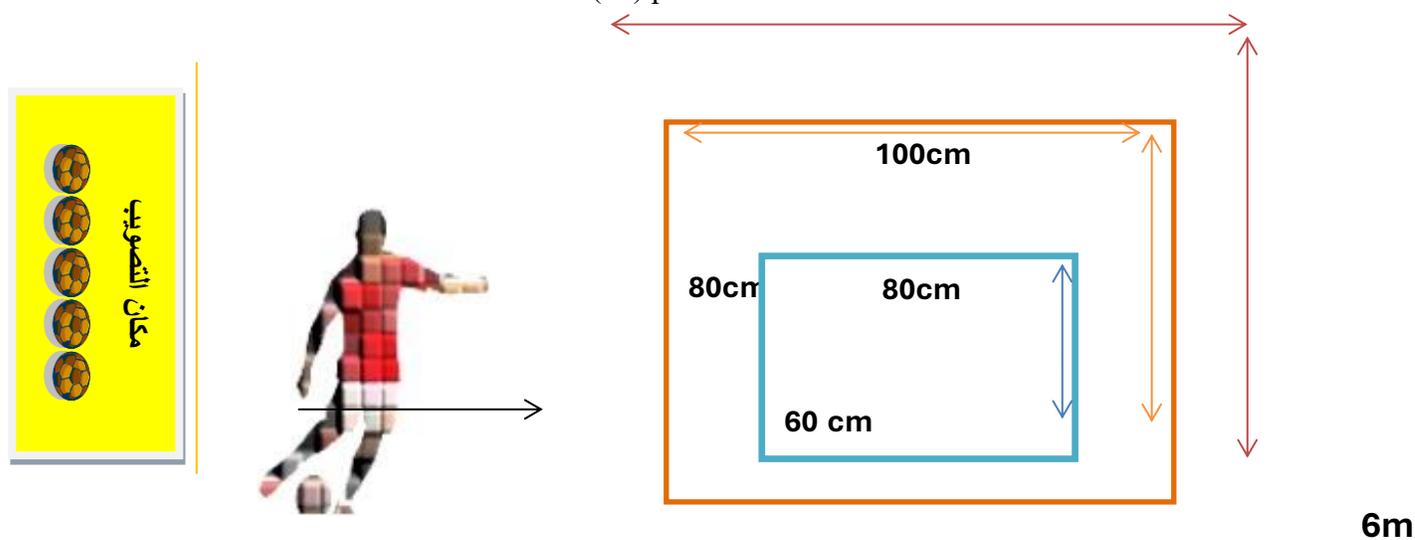


Figure (1) : Illustrating the scoring test on the target divided into degrees from a distance of (6) m

Ball Stopping Test (Zuhair Khashab et al., 1999, page 209)

Test objective: Measure the accuracy of the football extinguishing skill.

Tools used: (5) legal footballs, measuring tape, colored adhesive tape.

Performance description

The coach stands with the ball on the line opposite the tester, which is (6 m) away from the specified test area (2 x 2 m). Upon hearing the starting whistle, the coach throws the ball (high

ball) towards the tester standing behind the test area to move towards the ball to stop it inside the extinguishing area with any part of his body except (arms) and then return to behind the extinguishing area.

Performance conditions

The ball is thrown by moving the arms from the bottom to the top. If the coach makes a mistake in throwing it, the attempt is repeated and is not counted.

Scoring points

Two points are counted for each correct attempt.

Each tester is given (5) consecutive attempts.

The attempt is not considered valid in the following cases:

If the tester is unable to stop the ball.

If he crosses any of the extinguishing zone lines by more than a foot.

If he stops the ball in an illegal manner.

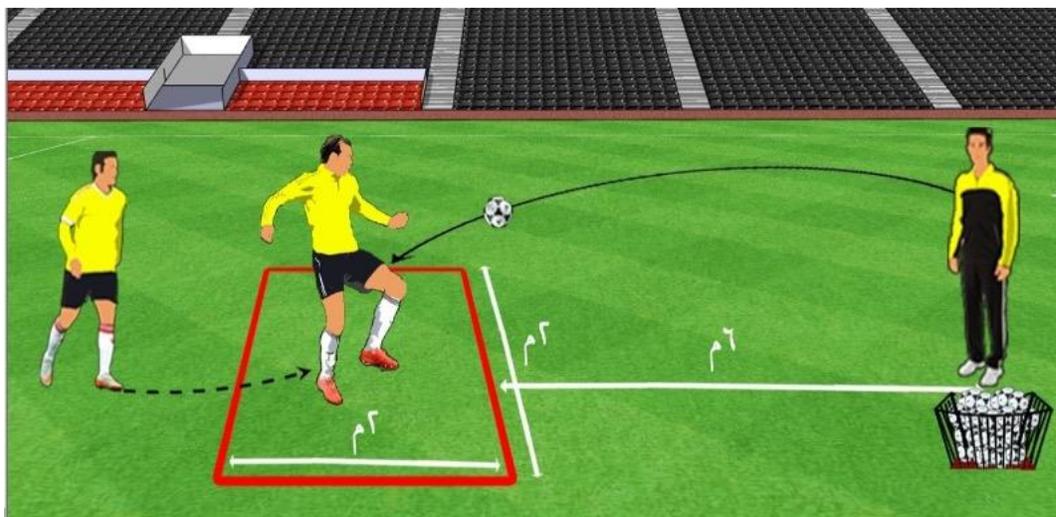


Figure (2) shows the ball stopping test inside a square (2x2m) for a distance of 6m

The researcher conducted the exploratory experiment on the experimental group on Sunday, 11/12/2023, and in the same way on the control group on Thursday, 11/9/2023, to test the ball control and scoring skills on a sample of (10) students from outside the research sample from the first-stage students. The experiment began at exactly ten o'clock in the morning, and after (7) days,



the experiment was repeated on the individuals themselves to reveal the validity of the devices, tools, research tests, and the assistant work team. After that, the researcher extracted the scientific foundations for the tests.

The researcher applied the cognitive processing scale test to the research sample for the experimental group on Sunday 11/19/2023 and conducted the pre-test for the control group on Thursday 11/16/2023. Then the researcher conducted the pre-tests for the skills of scoring and ball control for the experimental group on Sunday 11/26/2023. In the same way, the test was conducted on the control group on Thursday 11/23/2023. Then the researcher gave two introductory lectures on the required skill. The test of the skills studied in the research, which are the skills of suppression and scoring, was applied to the research sample, which numbered (20) students for the control group and (20) students for the experimental group after adjusting all variables and preparing all the test requirements and tools with the help of the assistant work team and under the supervision of the researcher.

After completing the application of the educational curriculum on the members of the experimental group, which included (12) educational units, the researcher conducted the post-tests on Sunday, 2/11/2024, for the experimental group and on Thursday and 2/8/2024 for the control group. The post-tests of the scale were conducted on Sunday and Thursday, corresponding to 2/15-18/2024, under study, on all members of the basic experimental sample, the two groups (experimental and control), and with the same conditions and specifications of the pre-measurement to obtain data and record it in special forms in preparation for statistical processing.

Table 1: shows the details of the educational curriculum

No.	curriculum	details
1	Number of weeks	12
2	Number of units per week	1
3	Total number of educational units	12
4	The duration of the educational unit	90 Minute
5	"The total duration of the educational units per week	90 Minute
6	"The total duration of the educational units per month	360 Minute
7	Curriculum time	4320 Minute



8	Average number of exercises in educational units	4 Exercises
9	Number of exercises in the curriculum	48 Exercises
10	Number of educational units for each skill	4 Educational units

Statistical Analysis

The research data were processed automatically using the Statistical Package for the Social Sciences (SPSS) to calculate the values of percentages, arithmetic mean, standard deviation, the t-test.

Results

Table (2): shows the significance of the differences between the pre-post measurement in cognitive processing and some basic football skills for the (control) group.

Statistical processors Variables	Previous test		Subsequent test		The value of the calculated for(t)	Statistical evidence
	M	SD	M	SD		
Cognitive treatment	7.22	0.92	7.61	1.87	0.65	unsignificant
Suppression	6.96	1.13	6.30	1.06	0.88	unsignificant
Scoring	4,53	1,12	9,20	1,20	10,04	Significant

Significant at a significance level of > or equal to (0.05)



Table (3): shows us the arithmetic means, standard deviations, calculated (t) value, and significance level between the results of the pre- and post-tests

Statistical processors VariableS	Previous test		Subsequent test		The value of the calculated for(t)	Sig	Statistical evidence
	M	SD	M	SD			
Cognitive treatment	27.25	1.788	34.15	1.647	5.821	0.00	Significant
Suppression	3.45	1.79	4.101	1.45	4.254	0.003	Significant

Significant at a significance level of > or equal to (0.05)

Discussion

By displaying and analyzing the results of the post-tests in cognitive processing and some basic skills in football for the control and experimental research groups in Table (2 and 3), it was found that there were significant differences in favor of the experimental group. The researcher attributes these significant differences to the effectiveness of the strategies of the Shamk model in cognitive processing, which were applied by the experimental group, as the educational units that were prepared according to this strategy increased the students' self-confidence and worked to get some of them out of isolation and fear of participation, in addition to transforming their negative attitudes into positive ideas and attitudes that led to motivating them to participate, love the curriculum, desire to participate, and drive towards the correct performance of education. In this regard, Wajih Mahjoub (1985) states that "admiration for movement and motivations play a major role in the process of learning and mastering skills" (Wajih Mahjoub 1985, p. 87). The strategies of the Shamk model in cognitive processing also work to provide information to students in a rich and diverse educational environment that encourages them to bear responsibility themselves and push them to achieve the desired educational goals. This is what Muslim Muhammad Jassim points out. Abdul Wahid Mahmoud Muhammad (2016) said that "teaching using the strategies of the Shamk model in cognitive processing works to improve the cognitive abilities of the student and gives them a sense of acceptance with others, self-confidence and preparation for self-education. Teaching



using the strategies of the Shamk model also provides an opportunity for students to present the concepts of the subject matter in a way that differs from the traditional style of teaching, which depends entirely on the teacher. Teaching using the strategies of the Shamk model also adds a degree of excitement and freedom to students and reduces boredom and routine" (Iqbal Abdul Hussein, p. 97). The environment provided by the strategies of the Shamk model depends on providing assistance to the student at a time when he may stumble, which leads to an increase in the knowledge and skills that enable him to pass the educational situation and interact with it positively in a way that achieves the desired educational goals. It also leads to developing the student's ability to acquire and retrieve information, and then developing their ability to understand and absorb information and facts, in addition to developing their ability to employ this information and apply it in new educational situations, as the use of the strategies of the Shamk model provides students with support and assistance by directing them to the path of interaction with the educational situation. To reduce the confusion and frustration he may feel and thus overcome the situation and achieve his own learning. (Razzaq Awad, 2024, page 19)

The role of feedback given to students has also contributed effectively to the development of learning and continuously whenever the type of error is identified, so that students are divided and work in groups to facilitate the difficult task so that feedback can be given more correctly and effectively "since giving feedback in a way that knows the results in the event of improvement in achievement through learning the motor skill." (Ryuta. Kawashima 2000, p. 698) The strategies of the Schmuck model are characterized as a learning style based on social interaction with characteristics such as achieving deep thinking, familiarity of partnership and support to avoid failure and frustration and increase learning motivation, learners' enthusiasm, and clarity of directions to clarify the purpose of science, and ensure its continuity and the completion of its tasks accurately by presenting their predictions, as it works to link them to reliable and modern sources of knowledge. (Molenaar, 6 4, 2011, p623.)

Using the strategies of the Schmuck model worked to provide an educational atmosphere characterized by excitement and positive interaction and increased motivation among students to achieve the best, as teaching using the strategies of the Schmuck model in creative thinking and cognitive achievement leads to more continuous and effective communication between students and the teacher on the one hand and between students and their peers on the other hand, which is positively reflected in creative thinking, cognitive achievement and skill performance. The teacher can, through communication and interaction, stand on the needs of students in their various forms and transfer their cognitive and emotional experiences to them, as the strategies of the Schmuck model contribute to encouraging learners to participate positively, making them feel love,



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confidence, partnership in learning and responsibility for it, which achieves its effectiveness, and a sense of its importance to himself, his teacher and his colleagues, and the importance of his role in achieving his success and their success in learning, through completing the tasks of this learning with mastery and reaching a feeling and value of what He learns it, and enjoys it through his awareness, functional aspects, and benefit (Youssef Qatami, page 74). Reem Al-Hazmi (2015) also confirms that “the strategies of the Shamk model work to arouse the learner’s motivation, and focus on his positive and active role, so that it leads to achieving goals and developing many skills” (Reem Al-Hazmi 2015, page 24).

Conclusions

The educational curriculum according to the Shamk model had a clear and effective impact on processing information for football students. The impact of the educational curriculum according to the Shamk model in developing the most important basic skills studied (ball control, scoring).

Recommendations

The necessity of relying on the Shamk model in building educational curricula for students of the Faculty of Physical Education and Sports Sciences. The necessity of intervention and combination of theoretical and skill aspects in building educational curricula for students of the Faculty of Physical Education and Sports Sciences.

The necessity of applying the educational curriculum to other samples and skills.
The necessity of paying attention to students' levels and gradual education from easy to difficult.



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