



THE IMPACT OF SWOM STRATEGY ON DEVELOPING CREATIVE THINKING AND LEARNING SOME COMPOUND OFFENSIVE HANDBALL SKILLS FOR STUDENTS

Majid Mohammed Msaed

College of Physical Education and Sports Sciences / University of Misan
majidsportk@gmail.com

Esrraa AbdulZahra Arkhees

College of Physical Education and Sports Sciences / University of Misan
essrra.iraq@gmail.com

Zainab Abdulkadhim Hasnawi

College of Physical Education and Sports Sciences / University of Misan
zainbkathiam@gmail.com

Abstract

The importance of the research is about using teaching methods that are compatible with the skills that depend on the student's participation in the learning process in a more positive way through conducting a scientific study to know the extent of the impact of this SWOM strategy in developing creative thinking and learning some of the compound offensive skills of handball, which is an attempt to provide learners with educational methods compatible with their methods, the problem of the research through the two researchers' observation of the performance of some compound offensive skills of handball for students of physical education and sports sciences at the University of Misan, they found that there is a weakness in learning these skills as well as difficulty in their performance and that the SWOM strategy aims to improve learning and production by integrating theoretical information and motor performance, so the two researchers identified the impact and importance of the SWOM strategy by introducing it into the educational curriculum according to the skills of creative thinking and learning the performance of some compound offensive skills of handball for students. The research aims to identify the impact of the SWOM strategy in developing creative thinking and learning some compound offensive handball skills of the third stage students in the College of Physical Education and Sports Sciences / University of Misan, as well as identifying the difference between the control and experimental groups in developing creative thinking



and learning some of the compound offensive skills. The two researchers used the experimental method for its relevance to the nature of the problem to be solved. As for the research community, it was a group of third-year students in the College of Physical Education and Sports Sciences, Misan University, for the academic year 2021-2022. As for the most prominent conclusions and recommendations reached by the researchers, the exercises prepared in the use of the SWOM strategy had a positive impact on the development of some compound offensive skills (receipt of the deception ball shooting, receiving the ball shooting, receiving the ball shooting) in the experimental research sample and that the adoption of the SWOM strategy contributed to the development of creative thinking among the members of the research sample, the experimental group, and the most prominent recommendations were to adopt the philosophy of exercises prepared using SWOM strategy in learning the motor skills of all games in general and handball in particular, because they are successful and effective. Handball game, to make the learning and training process successful, and to create a favorable atmosphere for the players in creating high motivation for the learning and training process.

Keywords: SWOM Strategy, Creative Thinking, Offensive Handball, Skills.

1-1 Introduction and Importance of Research

There is a notable increase in interest in teaching methods and methods as a tool for achieving goals and consolidating the content in the minds of learners (Li, 2013). The learning process is one of the complex processes that require the learner's awareness of the skills necessary to achieve success in them. Therefore, increased attention to study skills, study habits and learning strategies, in the light of activating the role of the learner on the one hand and the increase in the complexity of educational tasks with the progress of the educational stages on the other hand (Heikkilä & Lonka, 2006). That the most important weaknesses directed to the traditional teaching methods (explanation and model performance) is their failure to take into account the abilities of learners and the individual differences between them, and these methods cannot be accepted at the beginning of the third millennium, where attention should be directed to investing in the learners' own potentials and trying to develop and promote them (Belanger & Jordan, 1999). Therefore, modern methods of education have appeared based on self-education and educational technology, which reflect the



methods and methods of teaching, and this led to a change in the role of the teacher and the learner as a guide rather than a transmitter of knowledge (Matzavela, Chrysafiadi & Alepis, 2017). Also, the process of teaching physical education, despite its apparent ease, contains a huge amount of complexities, as teaching deals with heterogeneous groups of people with individual differences and different tendencies and psychology (Casey & MacPhail, 2018). From this perspective, the interest of educators and researchers in the education process has turned to adopting modern learning strategies that make the learner a thinker, critic, interpreter and searcher for facts and knowledge (Kaharuddin, 2018). This type of learning is active learning that makes the learner an active participant in the educational process and makes him work and think. In what it does, the traditional method does not lead to meaningful learning, but rather to passive listening from the learner and not taking into account individual differences (Li et al., 2020). The SWOM strategy is one of the metacognitive strategies that focus on teaching skills both creative and critical thinking at different age levels, in addition to using activities. This strategy is one of the most important metacognitive strategies and aims to create educational effectiveness and help the learner to be a thinker and critic (Dahesh et al., 2022). The most important characteristic of this strategy is its accuracy and clarity. Teaching methods that are compatible with the skills that depend on the student's participation in the learning process (Hussein, Hasan & Al-Jadaan, 2022). It had a positive impact by conducting a scientific study to know the extent of the impact of this SWOM strategy in developing creative thinking and learning some compound offensive handball skills, which is an attempt to provide learners with educational methods that are compatible with their methods (Saeed, A. J., & Mohammed, 2021). As for the problem of the research, by observing the two researchers' performance of some offensive skills in handball for students of physical education and sports sciences at University of Misan, they found that there is a weakness in learning the performance of these skills as well as difficulty in performing them, and that the SWOM strategy aims to improve learning and its production by integrating theoretical information and performance Kinetic, so the researchers identified the impact and importance of the SWOM strategy by introducing it into the educational curriculum according to the skills of creative thinking and learning the performance of some compound offensive skills of handball for students (Naji & Ali, 2021). The third stage in the College of Physical Education and Sports Sciences / University of Misan, as well as



identifying the difference between the control and experimental groups in the development of creative thinking and learning some of the compound offensive skills of the research sample. As for the research hypotheses, there are significant differences at the level (0.05) showing the average results of the tests of some compound offensive skills for pre-tests and post-tests of the experimental group. Compound offensive and creative thinking between the control and experimental groups and in favor of the experimental.

2 Research Methodology and Field Procedures

2.1 Research Methodology

The two researchers used the experimental method for its relevance to the nature of the problem to be solved to achieve the objectives and hypotheses of the research, as the experimental method was defined by (Mishra & Alok, 2022), variable and controlled for the specific conditions of an event, and the observation and interpretation of the resulting changes in the event itself. The two researchers used the design of the two equivalent groups: The control and experimental group, so that the two groups are completely equivalent in their circumstances, except for the experimental variable that affects the experimental group (Pandey & Pandey, 2021), and the table (1) shows the experimental design of the research.

Table (1) Shows the experimental design of the research

Group	Pre-tests	Solution	Post-tests
Experimental	Creative thinking Compound offensive skills	SWOM Strategy	Creative thinking Compound offensive skills
Control	Creative thinking Compound offensive skills	The method followed	Creative thinking Compound offensive skills

2-2 community and research sample

One of the important matters to be taken into consideration in scientific study is the selection of a sample that honestly and truly represents the original community. The process of selecting the sample is closely related to the nature of the research taken from the sample as it represents the part that represents the original community or the model that the researcher conducts as a whole and the focus of his work on it (Sürücü & MASLAKÇI, 2020). On this basis, the research community was determined by students of the stage The third in the College of Physical Education and Sports Sciences at the University of Misan for



the academic year (2021-2022). The research sample was chosen in a deliberate way from the original research community with a number of (26) students, including (4) students for the experimental sample. This sample was divided into two groups: Control and experimental groups for each group (11) students according to the requirements of the research procedures. In order to adjust the variables that accompany the research experience as well as to identify the validity of the sample and the distribution of the values of its variables moderately, the two researchers conducted the homogeneity process for the research sample in terms of length, weight, age, and educational age, using the Torque coefficient, and the results showed that the research sample members were distributed normally in the research variables, and there were no abnormal values, as the values of the Torque coefficient were confined between (± 1), which indicates that the research sample is normally distributed, as shown in Table (2). In order for the researcher to be able to suggest the difference to the experimental factor, the experimental groups must be equivalent” (Ritz et al., 2014). The starting point should be the same for both groups (control and experimental), and the results showed random differences between the two groups by comparing the probability value (sig) calculated with the error rate in educational research, which is (0.05), and as shown in Table (3).

Table 2: Shows the homogeneity of the research sample

Variables	Unit of Measure	Arithmetic Mean	Standard Deviation	Torque Coefficient	Size
Height	Cm	172.72	4.56	0.592	
Weight	Kg	67.18	3.66	0.313	
Age	Year	20.23	2.12	0.254	22
Training Age	Month	8.40	1.09	0.207	

Table 3: Shows the equivalence of the two groups (control and experimental) in the research variables.

Search Variables	Measuring Unit	Control Group		Experimental Group		Calculated T Value	Sig	Indication
		AM	SD	AM	SD			
Receiving the Ball Deception Correction	Degree	8.46	0.60	8.11	0.63	1.49	0.152	
Receiving the Ball Chuck Correction	Rating Score	11.88	0.97	11.53	0.67	0.930	0.363	
Receiving the Shooting Ball	Degree	5.64	0.78	5.46	0.82	0.523	0.606	None
	Rating Score	9.54	1.12	9.00	1.30	0.701	0.492	
	Degree	5.73	1.20	5.37	1.10	0.738	0.469	



2-2 Means, tools and tools in research

2-3-1 Information media

Arabic and foreign sources and references, personal interviews (*). Scale of creative thinking, forms to assess the skill performance of compound offensive skills, expert survey on the validity of skill tests.

2-3-2 Devices and tools used in research

Legal handball court, 15 legal handballs, whistle, video camera (SONY type) (1) Japanese-made, (1) DELL laptop, (5) CDs, stopwatches (1) Office Supplies, Scale Device for Weighing, Leather Measuring Tape

2-4 Field Research Procedures:

2-4-1 Determining the research variables and their special tests:

After reviewing many scientific sources and references in the field of handball, as well as conducting some personal interviews with the experts and specialists referred to previously, about determining the variables of the research that represented the problem of the current research, and through the two researchers' experience in the field of the game, as well as the opinions of the two researchers. The experts and specialists who were consulted, the research variables and their tests were determined by conducting a reference survey of the sources and references for the handball game in the light of variables.

2-4-1-1 Description of the tests used in the research:

First: The test of receiving the ball, deception and correction: (Mansour Hamza Hadi 2019, pp. 51-52).

Second: The test of receiving the ball. Shooting: The name of the test is shooting from the forward jump (Kamal Al-Din Abdel-Rahman Darwish et al. 2002, pp. 156-157.)

Third: The test of receiving the ball shooting: The name of the test of shooting from high jump: (Ahmed Kazem Abdel Karim, 2015).

from high jump: (Ahmed Kazem Abdel Karim, 2015).

2-4-1-2 scale of creative thinking

The scientist Princeton designed this scale, which originally consisted of (74) items aimed at measuring the creative thinking of individuals, and the answer to it is through three alternatives: (I agree, hesitant, I do not agree), as the total score of the scale ranges from (74-222). Degree and (Nadia Hayel Sorour)



Arabized the male scale and tested it in Jordan and recommended and generalized it to the Arab environment and it was applied by the researcher (Zahra Jamil Saleh In his master’s thesis in 2006 at the University of Mosul \ College of Physical Education after it was approved by (10) experts that it is valid for application in the sports field after modifying and developing the paragraphs towards the research sample. Then Thaer Rashid Hassan legalized the scale and modified it to (52) paragraphs. Ghazi presented this scale to a number of experts to take their opinions regarding its suitability of the scale to the sample. The experts agreed on the scale’s paragraphs with an amendment in the wording of the paragraphs. This modification was taken and the researcher adopted the scale from Iman Ghazi Waheeb , 2019, pg. 136). The forms were distributed to the students (individuals of the research sample) after taking approval, and then the forms were collected and the students were classified according to their answers to the test items according to the test key, which consists of three items: (A, B, C).

Table 4: A table showing the percentage between the experts’ opinions to determine the experts’ agreement, the paragraphs of the scale, by (70%)

NO	Experts' opinion		Percentage		NO	Experts' opinion		Percentage	
	Agree	Disagree	Positive	Negative		Agree	Disagree	Positive	Agree Negative
1	16	4	%80	%20	27	14	6	%70	%30
2	20	0	%100	%0	28	20	0	%100	%0
3	14	6	%70	%30	29	15	5	%75	%25
4	18	2	%90	%10	30	18	2	%90	%10
5	4	16	%20	%80	31	17	3	%85	%15
6	20	0	%100	%0	32	20	0	%100	%0
7	16	4	%80	%20	33	18	2	%90	%10
8	18	2	%90	%10	34	14	6	%70	%30
9	14	6	%70	%30	35	14	6	%70	%30
10	20	0	%100	%0	36	20	0	%100	%0
11	14	6	%70	%30	37	16	4	%80	%20
12	20	0	%100	%0	38	18	2	%90	%10
13	16	4	%80	%20	39	18	2	%90	%10
14	18	2	%90	%10	40	17	3	%85	%15
15	17	3	%85	%15	41	20	0	%100	%0
16	18	2	%90	%10	42	18	2	%90	%10
17	15	5	%75	%25	43	14	6	%70	%30
18	17	3	%85	%15	44	20	0	%100	%0
19	14	6	%70	%30	45	16	4	%80	%20
20	20	0	%100	%0	46	4	16	%20	%80
21	14	6	%70	%30	47	17	3	%85	%15
22	18	2	%90	%10	48	18	2	%90	%10
23	19	1	%95	%5	49	17	3	%85	%15
24	15	5	%75	%25	50	14	6	%70	%30
25	4	16	%20	%80	51	5	15	%25	%75
26	20	0	%100	%0	52	20	0	%100	%0



2-4-2 The exploratory experience:

It means "a preliminary experimental study carried out by the researcher on a small sample before carrying out his research with the aim of choosing research methods and tools" (Pandey & Pandey, 2021). In order for the two researchers to obtain objective results, they conducted the exploratory experiment for skill tests, on Sunday 5/11/2021, on a sample of (6) students from the research community of the third stage students. The location of placing the (camera), the tools used in the tests, as well as the suitability and accuracy of the skill tests of the sample, as well as knowing the difficulties that the sample may face during the application, knowing the time it takes for the test when applying it to benefit from that when conducting the main research experiment, training the cadre, auxiliary work On how exams work and how to score grades.

2-4-3 The main experience:

2-4-3-1 Pre-tests:

The two researchers conducted Pre-tests on the research sample of (22) students who represented the two experimental control groups, on Tuesday 7/11/2021 at exactly ten o'clock in the closed sports hall in the College of Physical Education and Sports Sciences / University of Misan, so the tests were recorded The Pre-tests measures of (height, weight, age, training age), and the results of the tests related to (receiving the shooting ball, receiving the shooting ball, receiving the shooting ball). The tests in terms of (time, place, climate), in order to be able to create similar or close conditions when conducting post tests.

2-4-3-2 Experimental Method

After completing the Pre-tests, the two researchers implemented the educational units in the handball lesson for students, there are (12) educational units, starting with On 12/11/2021 until 9/12/2021, two educational units per week for each of the two research groups, as the time of the educational unit reached (90) minutes. Through these experiences" (Alipour et al., 2020)>The educational unit is divided into three sections:

First: the preparatory section

The educational unit begins in the closed hall for the control and experimental research groups, and its time is (15) minutes. Emphasis is placed on the administrative aspects, preparing students, and starting with the general and



then private warm-up, with exercises related to the main section of skills, as the two groups participate together in the warm-up.

Second: the main section

The time of the educational section is (70) minutes, the time of the educational section is divided into (20) minutes, where the skill is explained and a model is presented to the students, and the applied section has a time of (50) minutes. Each group is given an educational unit that includes a variety of exercises for the complex offensive skills Handball, as the control group uses the method followed by the teacher, while the experimental group uses the SWOM strategy and the steps it contains for its implementation.

Third: the closing section

The time for the concluding section is (5) minutes, which includes giving a small recreational game, educational instructions, and a departure greeting. As for the total time of the educational curriculum and the times of each section of the educational unit, they are shown in Table (5)

Table 5: It shows the content of the lesson sections, the time specified for them, the total time, and the percentage of the unit's activity

Sections of the educational unit	Lesson content	activity	Activity time per unit/min	Total time of activity/min	Percentage of each activity
Preparatory Section	Introduction		5	60	5,55
	General warm-up		5	60	5,55
	Special warm-up		5	180	200
Main Section	educational activity		20	240	22,222
	Applied Activity		50	480	44,44
Final Section	Conclusion		5	60	5,55
Total			90	1080	%100

2-4-3-3 Implementation of the SWOM strategy

The experimental and control groups applied the same steps in some parts of the lesson, namely (the introduction, warm-up and the closing section), and the two groups differed in the main section, the researchers applied the educational curriculum according to the SWOM strategy on the first group (experimental) while it was applied to the second group. The control group the educational curriculum in the style followed by the teacher, as the researchers applied the educational units according to the SWOM strategy on the members of the



experimental group, which numbered (11) students. In the educational part, the skill is explained by dividing it from easy to difficult and by giving educational exercises according to the SWOM strategy.

2-4-3-4 Post-tests

After completing the application of the educational units, post-tests of the skills investigated with the creative thinking scale were conducted at exactly ten o'clock on Sunday 10/12/2012 in the closed sports hall at the College of Physical Education and Sports Sciences - University of Misan in the same way that was done in the tribal test And under the same temporal and spatial conditions for the purpose of conducting the evaluation process for the skills under study.

2-4-3-4 Statistical means:

The researchers used the statistical methods in the prepared program for the Statistical Portfolio for Social Sciences (SPSS), version 23.

3- Presentation, analysis and discussion of the results:

4.1- Presentation and analysis of results

4- 1-1-Presentation and analysis of the results of the tests of defensive and offensive skills, the tribal and remote components of the control group.

Table (5) It shows the arithmetic mean, standard deviation, the calculated (t) value, the significance level of the creative thinking scale, and the pre and post skill tests for the control group.

2-1-3Presentation and analysis of the results of the tests of defensive and offensive skills, Pre-tests and Post-tests components of the experimental group. Table 7: shows the arithmetic mean, standard deviation, the calculated (t) value and the level of significance of the pre and post skill tests of the experimental group.

Search Variables	Measuring Unit	Pre-Tests		Post-Tests		T Value	Sig	Indication
		AM	SD	AM	SD			
Creative thinking	Degree	15.35	4.11	19.16	3.49	8.87	0.014	
Receiving the ball / tricking/ shooting handball	Degree	8.00	0.63	15.36	1.50	48.40	0.000	
Receiving the ball / dribbling/ shooting handball	Rating score	11.63	0.67	16.27	1.10	15.50	0.000	Active
	Degree	5.36	0.82	8.09	0.70	19.36	0.000	
Receiving and shooting ball	Rating score	9.09	1.30	15.30	1.02	23.00	0.000	
	Degree	5.27	1.10	8.36	1.20	6.02	0.000	

3-1-3and analyze the results of soil, offensive and offensive tests.



Table (8) Arithmetic mean, standard deviation, calculated value (t) and significance level for the scale of creative thinking and dimensional skill post-tests

Search Variables	Measuring Unit	Group				T Value	Sig	Indication
		Control Group		Experimental Group				
		AM	SD	AM	SD			
Creative thinking	Degree	16.11	4.23	19.47	3.49	5.39	0.000	
Receiving the ball / tricking/ shooting handball	Degree	12.72	0.90	15.36	1.50	8.44	0.000	
Receiving the ball / dribbling/ shooting handball	Rating score	14.90	1.37	16.27	1.10	2.56	0.018	Active
	Degree	7.00	1.01	8.09	0.70	2.96	0.008	
Receiving and shooting ball	Rating score	13.53	1.30	15.30	1.02	2.91	0.009	
	Degree	7.18	1.07	8.36	1.20	2.63	0.014	

3-2 Discussing the Results:

3-2-1 Discussing the results of the scale tests of creative thinking and the composite offensive skills, before and after the control group:

It was shown in Table (6) for the results of the creative thinking scale and the offensive skill tests compounded by the tests (Receiving the ball / tricking/ shooting handball, Receiving the ball / dribbling/ shooting handball, Receiving and shooting ball), for the control group, before and after, and the emergence of moral differences between them and in favor of the post tests, and the two researchers attribute these differences The morale between the Pre and Post-tests of the relatively simple control group to the results of the experimental group, to the clear development in the level of creative thinking, as well as to the quality of the skill exercises used in the educational units, which also included exercises to develop the offensive side of handball, as the control group is also the third stage students in Handball subject and the teacher seeks to develop it in all areas of preparation for skill learning, training and development through a specific training educational curriculum, so the prepared curriculum and its exercises played the most prominent role in the development of his group, and this is confirmed by (Razzaq & Ibrahim, 2019), that the performance of training experts, no matter how different the sources Their scientific and practical culture inevitably leads to the development of achievement for their players if it is built on a scientific basis in the field Organizing the training and development process, programming it, using the appropriate load and grading, noting the individual differences of the players, as well as using the optimal repetitions and rest periods appropriate for performance. In addition, the students' continuity, regularity, and response to the exercises of the educational units throughout the weekly circles that coincided with the research procedures of the researchers, and the accompanying multiple repetitions of the offensive skill exercises under



the supervision of a teacher and his experience in education and training, led to the development of the skill performance of the control group, where sees Kravtsova et al (2022) in the stage of learning development, trainers and teachers emphasize the repetition of the performance of the basic skills of each game so that its implementation is automatic and its reflection on its development, and also pointed out (Anderson, 2010) that repetition is a basis for learning, and identifying. The number of repetitions of the movement is an important matter, as it depends on the coach's acumen and experience to a large extent in determining the optimal number of repetitions appropriate for each age stage.

3-2-2 Discussing the results of the tests of offensive skills, the pre and - posttests of the experimental group:

In the two tables (7) (8), the results of the scale of creative thinking and tests of offensive skills combined with tests (Receiving the ball / tricking/ shooting handball, Receiving the ball / dribbling/ shooting handball, Receiving and shooting ball), for the experimental group (Pre-tests / Post-tests) and (Post-tests / Post-tests) are shown. With the control, the presence of moral differences between them and in favor of the post-tests in both groups, and the researchers attribute these moral differences to the nature of the exercises using the SWOM strategy, which contributed to the development of creative thinking among students, which led to an increase and mastery of skills learning that is more than traditional learning and thus development in it. As well as its quality, different style and its economical effort towards masterly learning skills with different playing conditions and environment during play-like performance, the exercises prepared with this strategy contributed significantly to improving the specific performance of motor skills supporting the development of those skills, by working with muscle groups working in the same skill and in The motor, temporal and dynamic path itself, so it is the main means of physical and skill preparation (Al-Darraji & Al-Sulaimawi, 2020). The two researchers believe that the development of results in creative thinking as well as in the skill tests of the experimental group came through the quality of the optimal amount of repetitions of exercises according to this strategy, which contributed greatly to the development of the compound offensive skills and creative thinking of the research sample, and this led to an increase in his experience and then realization changing situations and competition conditions to deal accurately with the motor duty as a result of excessive learning on it as well as the player's sense of movement for the mentally complex skills, and thus the motor control over the position of his body according to the compound skill required as a result of learning, and this is confirmed by (Jasim, 2020), The success in the motor



performance of skills depends on the degree of mental awareness of them, the possibility and effectiveness of the specialized exercise and the player's ability to discover, receive and use all information related to the movement.

4- Conclusions and recommendations:

4-1 Conclusions:

There is a great deal of research being done on individualized education, this comes from many different areas that rarely share common ground in terms of either idea alignment or presentation norms. A lack of an a priori conceptualization that builds explicitly on a specified definition of SWOM strategy or theory of learning plagued the majority of studies investigating personalization. Although there is some evidence that SWOM method designs are effective in fostering the learning outcomes they intend, this evidence is limited, dispersed, and mostly correlative in nature. The intrinsic disorder of the evidence base also makes it difficult to determine which SWOM strategy designs actually accomplish these goals. This is because the designs of SWOM strategies used in practice are often complicated, taking into account a wide range of learner characteristics and adopting a variety of options in order to maximize a wide range of results. The current state of research hinders the exercises prepared in the use of the SWOM strategy of conclusive evidence of the effects that creative thinking and learning some compound offensive handball skills have on learner outcomes, which in turn impedes the development of a unified theory of personalized learning and the assurance practitioners can claim when planning a SWOM strategy implementation. Facilitating deeper relationships between SWOM strategy designers and experts in the field of educational research would help Clearer evidence of the benefits of SWOM approach and the influence it has on growing students' creative thinking and acquiring some compound offensive handball abilities is likely to lead to further developments that give superior benefits to learners.

References

1. Ahmed Kazem Abdel Karim: Evaluation of the training status for the stage of physical, skill and functional abilities of handball players aged 15-17 years, PhD thesis, College of Physical Education and Sports Sciences, Babylon University, 2015
2. Al Behadili, H. J. H., & Kasim, M. A. (2022). Developing Ball Dribbling And Passing Skills Using The Integrative And Reciprocal Methods Of Emerging Footballers. *Eurasian Journal of Humanities and Social Sciences*, 11, 76-82.
3. Al-Darraj, M. N. M., & Al-Sulaimawi, A. K. A. (2020). The Effectiveness Of Using (Swom) Strategy For Creative Thinking In Learning The Two Scoring Skills Of



- Stability And Scoring From Rolling In The Five-A-Side Football Game For Students. *Journal of Natural Remedies*, 21(7), 143-150.
4. Alipour, M., Torabi, M. A., Sareban, M., Lashini, H., Sadeghi, E., Fazaeli, A., ... & Hashemi, R. (2020). Finite element and experimental method for analyzing the effects of martensite morphologies on the formability of DP steels. *Mechanics Based Design of Structures and Machines*, 48(5), 525-541.
 5. Anderson, E. F., McLoughlin, L., Liarokapis, F., Peters, C., Petridis, P., & De Freitas, S. (2010). Developing serious games for cultural heritage: a state-of-the-art review. *Virtual reality*, 14(4), 255-275.
 6. Belanger, F., & Jordan, D. H. (Eds.). (1999). *Evaluation and Implementation of Distance Learning: Technologies, Tools and Techniques: Technologies, Tools and Techniques*. Igi Global.
 7. Casey, A., & MacPhail, A. (2018). Adopting a models-based approach to teaching physical education. *Physical Education and Sport Pedagogy*, 23(3), 294-310.
 8. Dahesh, M. A. A., Ibrahim, F. S., & Salman, M. A. (2022). Impact of the (SWOM) strategy on motor abilities and accuracy of volleyball block wall skills. *Journal of STEPS for Humanities and Social Sciences*, 1(3), 76.
 9. Heikkilä, A., & Lonka, K. (2006). Studying in higher education: students' approaches to learning, self-regulation, and cognitive strategies. *Studies in higher education*, 31(1), 99-117.
 10. Hussein, G. L., Hasan, A. J., & Al-Jadaan, D. A. N. (2022). The Effect Of The Swom Strategy On Learning Some Artistic Gymnastics Skills For Students. *ResearchJet Journal of Analysis and Inventions*, 3(04), 108-123.
 11. Jasim, B. M. 2020. The Effectiveness of the SWOM Strategy in Acquiring Mathematical Concepts for Second Grade Students, *Teacher Training Institutes*.
 12. Kaharuddin, A. (2018). The communicative grammar translation method: a practical method to teach communication skills of English. *ETERNAL (English, Teaching, Learning, and Research Journal)*, 4(2), 232-254.
 13. Kamal El-Din Abdel-Rahman Darwish and others: *Measurement, evaluation and match analysis in handball*, 1st edition, Cairo, Al-Kitab Center for Publishing, 2002.
 14. Kasim, M. A. (2022). Evaluation Implementing Cooperative Learning In Physical Education College Programs To Basic Handball Skills Learning In Universities Iraqi. *ResearchJet Journal of Analysis and Inventions*, 3(04), 289-297.
 15. Kasim, M. A. Effects Of Together Learning On University Students To Achievement Motivation. *JournalNX*, 8(05), 57-65.
 16. Kravtsova, I. A., Kravtsova, A. O., Hamaniuk, V. A., Bilozir, O. S., & Voznyak, A. V. (2022). Development of professional competence of primary school



- teachers of the New Ukrainian School in the aspect of foreign language teaching. *AET* 2020, 167.
17. Li, N. (2013). Seeking best practices and meeting the needs of the English language learners: Using second language theories and integrating technology in teaching. *Journal of International Education Research (JIER)*, 9(3), 217-222.
 18. Li, P., Legault, J., Klippel, A., & Zhao, J. (2020). Virtual reality for student learning: Understanding individual differences. *Human Behaviour and Brain*, 1(1), 28-36.
 19. Mansour Hamza Hadi: The effect of a curriculum for the bronze level of the Danish school in learning the basic skills of handball players in specialized schools, Master's thesis, College of Physical Education and Sports Sciences, University of Kufa, 2019.
 20. Matzavela, V., Chrysafiadi, K., & Alepis, E. (2017, April). Questionnaires and artificial neural networks: a literature review on modern techniques in education. In 2017 IEEE Global Engineering Education Conference (EDUCON) (pp. 1700-1704). IEEE.
 21. Mishra, S. B., & Alok, S. (2022). Handbook of research methodology.
 22. Naji, H. Q., & Ali, A. H. (2021). Effect of (SWOM) strategy on personal struggle and learning the combined offensive for students. *Annals of the Romanian Society for Cell Biology*, 25(6), 552-564.
 23. Pandey, P., & Pandey, M. M. (2021). Research methodology tools and techniques. Bridge Center.
 24. Pandey, P., & Pandey, M. M. (2021). Research methodology tools and techniques. Bridge Center.
 25. Razzaq, L. M. A., & Ibrahim, M. A. K. (2019). Standardization test for the measurement of offensive basketball composite skills (16) years. *journal mustansiriyah of sports science*, 1(3).
 26. Ritz, S. A., Antle, D. M., Côté, J., Deroy, K., Fraleigh, N., Messing, K., ... & Mergler, D. (2014). First steps for integrating sex and gender considerations into basic experimental biomedical research. *FASEB journal: official publication of the Federation of American Societies for Experimental Biology*, 28(1), 4-13.
 27. Saeed, A. J., & Mohammed, I. I. (2021). The Effect Use Of The Strategy (Swom) In A Peer-Guided Style In The Speed Of Learning The Skills Of Standing On The Head And Standing On The Hands On The Device Of Ground Movements. *Turkish Journal of Physiotherapy and Rehabilitation*, 32, 3.
 28. Salih, M. M. M., Hashim, R. S., & Kasim, M. A. (2021). Forecasting Achievement Sports through Cooperative Learning in Handball Training in Physical Education. *Annals of Applied Sport Science*, 9(3), 0-0.
 29. Sürücü, L., & MASLAKÇI, A. (2020). Validity and reliability in quantitative research. *Business & Management Studies: An International Journal*, 8(3), 2694-2726.