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Effect of the SWOM strategy on kinetic flexibility and volleyball block accuracy in students of Physical Education and Sports

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ABSTRACT

The primary aim of the present study was to identify the effect of the S.W.O.M. strategy in developing the flexibility and skill of the volleyball block for students. The present study was conducted on the volleyball players of the 3rd stage of the College of Physical Education and Sports Sciences of the University of Kufa, within the time frame of March 2021 to July 2021. The present study had an experimental design. The College of Physical Education and Sports Sciences of the University of Kufa was identified as the research community for the current study. A total of 28 students were recruited as participants for the present study. Participants were allocated into two groups (experimental group and control group), by simple random allocation method (raffle). The participants of the experimental group were directed as per the weekly plans and the S.W.O.M. strategy, at the rate of one teaching class per week. However, the participants of the control group were provided with the training based on their regular adopted strategy, prepared by the trainer. Based on the findings of the present study, the researchers concluded that the S.W.O.M. strategy significantly aided in improving the agility of students along with improvement in the block skills of the players.

KEYWORDS

SWOM strategy; kinetic flexibility; volleyball block accuracy; Physical Education.

1. INTRODUCTION

The S.W.O.M. strategy is one of the essential strategies in the success of the process through which the interaction between the teacher and the learner is established. The key purpose of SWOM is to prepare the players, who belong to the generation of productive learners characterized by

thinking and continuous self-learning, by integrating them with a set of skills and mental processes in a natural way in teaching various materials through clear and practical procedures that enable the strategy to achieve many of the goals.

Out of all the sports, volleyball game has attained a lot of attention in the various countries across the world. It includes offensive and defensive skills. A player should be trained in both the skills for the optimal performance and to achieve the best outcome out of the game (Marín et al., 2010; Taha Idrees et al., 2022). Hence each player needs to master the skills taking into account the technical aspects of the game, which can be done by adopting modern methods based on scientific foundations (Misjel et al., 2022; Shaalan et al., 2022). In the volleyball game, one of the essential skills that need much time while learning and mastering is the block skill. Block skill is very complex and at times challenging too. It requires high level of physical and kinetic abilities (Farhan Hameed, 2022; Hameed & Abdalkarem, 2022; Khudair, 2022; Saleh Al-Thubaini, 2022). Hence, researcher focused on developing the block skills amongst players by using S.W.O.M and finding its impact on effect on evolving flexibility.

To the best of researcher's expertise in the educational sector, their observation of the units, and thorough review of the existing literature, they found that there are a large number of students in the third stage who suffer from strain in mastering the block of volleyball. Since the technique is complex and it requires considerable time to master it correctly; therefore, the researchers decided to delve into this experiment by preparing S.W.O.M. and knowing its effect on the variables investigated.

The primary aim of the present study was to identify the effect of the SWOM strategy in developing the flexibility and skill of the volleyball block for students. The research hypothesis was that there would be a significant effect of the S.W.O.M. strategy in the flexibility and precision of the

2. METHODS

2.1. Participants and design

The present study was conducted on the volleyball players the 3rd stage of the College of Physical Education and Sports Sciences of the University of Kufa, within the time frame of March 2021 to July 2021, in the sports great hall of the College. The present study was experimental. A total of 28 students were recruited as the participants for the present study. Participants were allocated into two groups, i.e. experimental group and control group, by simple random allocation method (raffle).

2.2. Instruments and procedure

The instruments used were the torso flexion test described by Qalada (1989) and the precision test of the block (Hassanein, 2003). The preliminary experiment was conducted on a random sample other than the main participants of the study. This experiment was conducted in the month of March 2021. The preliminary experiment was conducted to verify the validity of the tools used in terms of positive assistance, to verify the fitness of the tests for the tester members and the ease of their application, to know the time required to conduct the tests, to verify the understanding and efficiency of the assistant work team in conducting measurements and tests and recording the results, and to know the difficulties that the researcher may encounter during the course of the study and provide appropriate solutions to them.

2.3. Experiment

2.3.1. Initial measurement

The research team conducted the initial tests on the research community players, selected as the participants for the study for the study variables in the month of March 2021.

2.3.2. Elaboration and execution of the S.W.O.M.

Prepared the strategy S.W.O.M., the salutation begins, then the warm-up and physical exercises. After reviewing the vocabulary of the program of the third stage students, the advance program was established in the form of developmental units. The program was started in the month of March 2021 in the closed sports hall of the faculty. Training was given as one unit per week, with a total of 08 training units. Each unit lasted for 90 minutes. The participants of the experimental group were directed as per the the weekly plans and the S.W.O.M. strategy, at the rate of (one teaching class per week) and in the entire central section. However, the participants of the control group were provided with the training based on their regular adopted strategy, prepared by the trainer i.e. one teaching class per week. The researchers prepared a S.W.O.M. to evolve the technical aspects of the variables and began executing the strategy in the main section of the evolution unit by providing an explanation and presentation of the educational situation to aid students. SWOM was applied by dividing pictures and illustrations of the situation solutions for skills under the supervision of the subject teacher and researcher.

2.3.3. Final measurements

After the completion of the application of the S.W.O.M. strategy on the participants of experimental group, the final tests were accomplished by the researchers for the control and experimental groups, in the month of May 2021.

2.4. Statistical Methods

In the present study, the statistical analysis was carried out using the Statistical Package for the Social Sciences (SPSS), by computing arithmetic mean, standard deviation and t test.

3. RESULTS AND DISCUSSION

As described in the Table 1 and Table 2, a significant difference was found between both the groups, i.e. experimental group and control group measurements, in favor of the final measurement of the two groups. The difference was attributed to the SWOM strategy used by the trainers for the participants of the experimental group. S.W.O.M Strategy is a modern strategy characterized by quality, precision, and purpose as per the physical abilities and specific characteristics of the players. The similar strategy was also found to be successful, when implemented in the training of volleyball players in a study conducted by Fouad Suleiman Qalada. Zaid *et al.*, 2015, stated that "the clarity of aim identified it in the light of specific outputs or levels of performance is meaningful and impactful". S.W.O.M significantly helped the players in raising their level of performances, in the form of a static or moving image that enabled them to use more senses in the process of learning. The increase in learning opportunities and this development in precision came as a result of moving away from the norm in education through S.W.O.M. which has the role in making the learner the center of the teaching process.

Table 1. The results of the control group

Variables	Unit	Initial		Final		T	p	Type
		Mean.	Standard Deviation	Mean.	Standard Deviation			
Flexibility	Cm	57.68	2.65	60.50	2.16	4.92	0.000	Sig.
Block Skill Precision	Deg.	6.833	1.940	9.5	0.547	2.794	0.038	Sig.

Table 2. The results of the experimental group

Variables	Unit	Initial		Final		T	p	Type
		Mean.	Standard Deviation	Mean.	Standard Deviation			
Flexibility	Cm	57.62	3.20	62.37	1.20	5.38	0.001	Sig.
Block Skill Precision	Deg.	7	2	11.833	0.752	5.540	0.003	Sig.

Table 3. The comparison between the results of the two groups

Variables	Unit	Control		Experimental		T	p	Type
		Mean.	Standard Deviation	Mean.	Standard Deviation			
Flexibility	Cm	60.50	2.16	62.37	1.20	4.015	0.001	Sig.
Block Skill Precision	Deg.	9.5	0.547	11.833	0.752	5.365	0.000	Sig.

While the researchers attribute the difference in the two measurements to the members of their group to the use of the strategy in terms of implementing the program, as it has transferred the learners from the regular learning they were in, which stipulates that they receive the information that is being asked to the modern style that provides for asking a question and making it choose the best solution and this is what made it easy and aid them to respond to the content of the strategy in order to succeed and prove their capabilities, and this aided in improving flexibility as a result of the various kinetic exercises as it was able to evolve this trait and also contributed to understanding the supplies of the block in volleyball, in addition to that, the reasons for these differences

4. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the present study, the researchers concluded that the S.W.O.M. strategy significantly aided in improving the agility of students along with improvement in the block

skills of the players. The experimental research group that used S.W.O.M. had better results than the control group in the research variables.

According to the set of conclusions adopted and formulated by the researcher from the results obtained in this experiment, some recommendations were made by the researcher. They recommended adopting S.W.O.M. strategy in the regular training schedule of the players to improve kinetic abilities in the students and to create the appropriate atmosphere for learners' motivation. The researchers also emphasized on conducting large sample trials in order to establish the effectiveness of the SWON strategy in players of different age groups.

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AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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