The Effect of Various Exercises on Developing Kinesthetic Awareness and Accuracy in Performing the Stabbing and Compound Attack Movement Skillsby Duelingfor Students

Hamid Abdul Shaheed Hadi[1], Abbas Idrees Noor[2], Muhannad Nazar Kzar[3]

[1]Najaf Education/Open College of Education/Iraq, dr.hamid112233@gmail.com
[2]Sheikh Al-Tusi University/Faculty of Education/Department of Physical Education
[3]College of Physical Education & Sports Sciences, AL-Mustaqbal University , Babylon , Hillah , 51001 , Iraq

Abstracts

The problem of the research was represented by the lack of interest of many teachers in the use of diversification and change in various exercises, despite the positive role it plays in generalizing the motor program for any fencing skill, even though most of its skills are characterized by difficulty in performing them, which requires providing the largest number of motor programs in order to be The learner has full readiness and preparedness, and the research aims to prepare various exercises to develop sensory perception and accuracy in performing complex attack skills and the stabbing movement. And to identify the effect of various exercises in developing the students' kinetic awareness and accuracy of combined attack skills and stabbing movements in fencing. Use the researcherthatThe experimental approach with two equal groups. The research sample represented the students of the third stage of the Department of Physical Education and Sports Sciences at the Islamic University for the academic year 2022-2023 AD, and they numbered (50) students. They were selected by a simple random method, and were divided into two groups (experimental and control), and the number of each group was (25).) student. The experimental group applied the various exercises prepared by the researcherthatAccording to the stages of building the motor program for learning epee skills in fencing, it was included among the educational units approved in colleges of physical education for third-year students, at the rate of one educational unit per week, amounting to (6) educational units. The time of the educational unit was (90/min), and the time of the educational unit was divided into the preparatory section. (15/d), the main section (65/d), and the final section (10/d). The most important conclusions were that there was a significant effect of the various exercises in developing sensory-motor perception and accuracy of performance in learning fencing skills. The most important recommendations are the need to pay attention to various exercises during educational units because they help learners expand their educational awareness and thus reflect on their performance of skills.

Keywords: various exercises, kinesthetic perception, stabbing movement and compound attack.

Introduction

1- Definition the research

1-1 Introduction to the research and its importance:

Motor learning is one of the important and main sciences directly related to achievement in physical education, which has led to the interest of many scientists and specialists in providing scientific research and studies that aim to develop the learner's performance in all sports. Sensory-motor perception plays an important role in the accuracy of performing sports skills through feeling muscular effort, resistance, or speed of movement. In addition, most movements in fencing require the student to have a high ability to perceive many variables, such as distance.When performing the skill and also perceptionTime, force and direction determinationFor the weapon and the player's body. Developing the student's cognitive ability helps him recognize most of the stimuli that he may encounter during the learning process, and this in turn helps him choose the appropriate response during performance.

Various exercises have an effective role in developing students' awareness, which in turn leads to multiple motor programs for the student. The concept of the motor program comes as an important component through which learners can organize their movements when the learners do not have enough time to process information, a mechanism of feedback to make corrections, and since the main goal of learning the skill is It is when the learners' performance reaches a state close to the real playing situation, so the learning process needs to take into account the construction of motor programsMultiplein different positions and shapes)Schmidt AR: 1991, 81.), and that various exercises will increase the speed and accuracy of sensory-motor perception for decision-making for the correct and appropriate response to the learning situation.

Since fencing is an individual sport practiced by both genders, and most of its skills are difficult, it requires precision in skill performance. This has led to the use of the best modern scientific foundations through which the level of skill performance of the learner can be developed. Therefore, the importance of the research lies in taking advantage of various exercises and using them to develop sensory-motor perception and its impact on developing the accuracy of performing compound attack skills and the stabbing movement in fencing for students.

1-2 Research problem

Through observation of the sport of fencing, it was found that the lack of interest on the part of many teachers in the use of diversification and change in various exercises, despite the positive role it plays in generalizing the motor programs for any of the fencing skills, despite the fact that most of its skills are characterized by a degree of difficulty that requires providing the largest number of exercises. Motor programs so that the learner has full readiness and preparation, and this affects the accuracy of the performance of learning the skills, and here the research problem centered on an attempt to study the use and knowledge of the effect of the various exercises that

were prepared by the researcher to develop the motor sense perception and the accuracy of performing the stabbing movement and the combined attack in fencing.

1-3 Research objectives:

1- Preparing various exercises to develop the students' motor awareness and accuracy in performing the skill of the stabbing movement and the combined attack in fencing.

2- Identifying the effect of various exercises on developing sensory perception and accuracy in performing the skill of the stabbing movement and the combined attack in fencing for students.

1-4 Research hypothesis:

1- There are significant differences between the pre- and post-test and in favor of the post-test.

2- There are significant differences between the experimental and control groups in the post-test, in favor of the experimental group.

1-5 Research areas:

1- Human field: Third stage students/Department of Physical Education and Sports Sciences/Islamic University for the academic year 2022- 2023.

2- Time range: 11/22/2022 - 4/15/2023.

3- Spatial area: Fencing Hall / Department of Physical Education and Sports Sciences / Islamic University.

Research methodology and field procedures:

1 Research methodology:

Use the researcherthatThe experimental approach was designed (two equal groups with a pre-test and a post-test) to suit the nature of the problem and achieve the research objectives.

2 The research community and its sample:

The research population was identified as the third-year students in the Department of Physical Education and Sports Sciences/Islamic University, who numbered (135) student, and the research sample of (50) students was randomly selected and divided into two groups of equal number (25) students for each group through valence variables as in the table below.

Table (1) It shows the equivalence of the research variables in the pre-measurement

T	Variables	Unit of measurement	Experimental group		Control group		value (t) calculated	Significance level (Sig.)	Type of significance
			S	A	S	A			
1	Appealing motion	degree	14,32	4,52	14,87	3,30	2,39	0,23	Not significant

2	Combination attack	Numerical attack	degree	5,43	2,43	5,12	1,98	1,48	0,16	Not significant
3		Circular attack	degree	6,36	1,98	6,21	0,98	1,87	0,12	Not significant

At a significance level of (0.05) and a degree of freedom (48)

3 Devices and tools used in research:

(Barriers, barriers, rubber ropes, data dump form, educational pictures, whistle, measuring tape, fencing weapons, stopwatch, digital camera (1) typeNEKOON7000, (1) HP laptop.

4 Field research procedures:

4-1 Skills subject of the research:

The researcher approvedthatThe basic skills of epee fencing are: (stabbing movement, numerical attack,Acircular attack)

4-2 Performance evaluation:

The evaluation was based on giving the numerical value to the research variables by photographing the skills, distributing them to (3) specialized arbitrators, and extracting the arithmetic mean for each of the skills. The evaluation was according to a form divided into parts of the skill, and each section was given a score by the arbitrator, and the score was the appeal movement skill. (30) degrees and other skills (10) degrees.

4-3 Exploratory experience:

The exploratory experiment was conducted on 12/14/2022 in the closed hall of the Department of Physical Education and Sports Science/Islamic University to achieve the following goals:

1- To inform the assistant work team of the nature of the research procedures.

2- Overcoming the obstacles facing the researcherthatDuring the implementation of procedures.

4 Verifying the scientific parameters of the tests.

5 Knowing the appropriate time for the exercises used.

6 Identify the suitability of exercises for the individual sample.

4-4Pretests:

The researcher rosethatBy conducting pre-tests in the fencing hall in the Department of Physical Education and Sports Sciences/Islamic University at ten o'clock in the morning, the basic skills under study were tested. All spatial and temporal conditions were fixed so that the post-test could be applied with the same procedures.

4-5 Preparing various exercises:

The researcher rosethatBy preparing educational exercises according to the stages of building the motor program for learning fencing skills, and they were applied within the approved educational units in colleges of physical education and for third-year students, at the rate of one educational unit per week and for a period of (6) educational units, the researcher usedthatSome educational methods during the educational exercises and based on the stages of building the motor program for the skill to be learned. The time of the educational unit was (90/min), and the time of the educational unit was divided into the preparatory section (15/min), the main section (65/min), and the final section (10/min). Errors were corrected by giving feedback according to the stages of building the motor program for the skill as follows:

- The first stage is the formation of the motor program for some of the epee skills, i.e. creating a printed image of the skill (stabbing movement, numerical attack, and circular attack), as the notes were given by the teacher with the aim of creating a clear and correct image for the learners.

- As for the second stage in forming the motor program for the skills under research, which was determined by the researcher, choosing one of the stored motor programs that the learner can use to reach the desired goal, and through educational exercises that helped the learner choose a previous motor program stored in the brain that is similar to the motor program. To apply the skill.

- In the third stage of forming the motor program for the studied skills, which includes the learner executing the motor program originally stored in the brain and comparing the result with the goal, while giving notes by the teacher about correcting the performance because the learner in this early stage of learning lacks knowledge of the precise details of the studied skills.

- In the fourth stage in forming the motor program for the studied skills, which includes repetition and correction until there is a match between the implemented program and the learners' printed image.

4-6 Posttests:

The posttests were administered on 1/25/2023 in the fencing hall of the Islamic University/Department of Physical Education and Sports Sciences at 10:30 a.m., and the skill tests were conducted for the skill of the stabbing movement and the combined attack in the same conditions in which they were applied in the pretest.

4-7 Statistical methods:

Use FinderthatStatistical bagspss) in analyzing the research data as follows:

- Arithmetic mean

- Standard deviation

- a testt for independent and linked samples.

Presentation, analysis and discussion of the results:

1 Presentation and analysis of the pre- and post-test results of the experimental group in skill tests.

After collecting pre- and post-data for the skill tests of the two research groups, and for the purpose of determining the significance of the differences between the pre- and post-tests of the two research groups, the researcher usedna testt))For linked samples, as shown in Tables (2) and (3).

Table (2) Shows the arithmetic mean, standard deviation, and valuest calculated for pre- and post-test For the experimental group

T	Variables		Pretest		Posttest		value (t) calculated	Significance level (Sig.)	Type of significance
			S	A	S	A			
1	Appealing motion		14,32	4,52	17,37	5,33	2,46	0,03	Moral
2	Combination attack	The attackNumerical	5,43	2,43	7,58	2,58	2,57	0,02	Moral
3		The attackCircularity	6,36	1,98	7,49	1,70	1,74	0,02	Moral

At a significance level of (0.05) and a degree of freedom (24).

2 Presentation and analysis of the pre- and post-test results of the control group in the skill tests.

Table (3) Shows the arithmetic mean, standard deviation, and valuest calculated for pre- and post-test For the control group

T	Variables		Pretest		Posttest		value (t) calculated	Significance level (Sig.)	Type of significance
			S	A	S	A			
1	Appealing motion		14,87	3,30	16,28	1,43	2,52	0,04	Moral
2	Combination attack	The attackNumerical	5,12	1,98	6,36	1,38	2,28	0,02	Moral
3		The attackCircularity	6,21	0,98	6,59	1,20	1,57	0,02	Moral

At a significance level of (0.05) and a degree of freedom (24).

3 Presentation and analysis of the results of the post-test for the two research groups in skill tests.

After collecting post-test data for the skill tests and for the two research groups, and for the purpose of determining the significance of the differences between the two groups in the post-test, the researcher usedthata test(t) for independent samples, as shown in Table (4).

Table (4) It shows the values of the arithmetic mean, the standard deviation, and the values of (t) calculated for the post-tests for the two groups (experimental and control)

T	Variables		Experimental group		Control group		value (t) calculated	Significance level (Sig.)	Type of significance
			S	A	S	A			
1	Appealing motion		17,37	5,33	16,28	1,43	2,52	0,02	Moral
2		The attackNumerical	7,58	2,58	6,36	1,38	2,67	0,01	Moral

3	Combination attack	The attackThe incisor	7,49	1,70	6,59	1,20	3,86	0,02	Moral

At a significance level of (0.05) and a degree of freedom (48).

4 Discussing the results of the tests for the two research groups.

Through the presentation and analysis of the results of the skill tests in the post-test, which are shown in Table (4), it became clear that there are significant differences between the two research groups and in favor of the experimental group. The researcher attributesthatSignificant differences in the various exercises prepared and used in the educational units, as each skill has its own specificity in learning it in terms of progression in the special educational steps, in terms of the place and time of its performance and the degree of mastery, and the method of optimal use of the vocabulary of the educational units prepared by the researcher.thatWith how it was applied and appropriate for the sample members, it helped the experimental group members to form various motor programs for one skill, which led to the success of learning the skill, as the primary goal of all educational methods and methods is to give an image of the goal to be learned, and when there is a clear image in the learner's mind, we expect performance. It is true, meaning that taking the correct picture is a positive step towards correct learning (Yarab Khayoun: 2008, 182). The diversity in the practice's use of educational exercises according to the stages of building the motor program helped to implement the response correctly, and he mentioned (Richard A. Schmidt Craig A: 3, 267) The learning that occurs among learners who practice several variations in practicing the forms of skills will become able to perceive the stimuli they face and thus activate the learning process for these skills.

It covered various exercises prepared by the researcherthatAll dimensions of sensory-motor perception related to learning fencing skills. The ability of the experimental group members to recognize and perceive stimuli helped the experimental group members to perform most of the offensive skills with a high degree of accuracy, as the high accuracy of sensory perceptions increases the individual athlete's ability to control and direct. Being aware of the movement of the body as a whole and through muscular sensation can provide the individual with information about the characteristics of the required sensory-motor perception, through which performance can be corrected (Naji Mutashar Ezzat: 2008, 99). The variety of exercises helped the members of the experimental group to store a large number of motor programs for offensive skills, which helped develop the accuracy of performing skills in fencing, and learning in its early stages achieves rapid development, especially if the individual learners do not have much experience, especially since both groups received repetitions of learning with Feedback: This was done by giving sound directions that were appropriate to the goal of the skill. Continuous correction of the mistakes made by the learners had a clear impact on learning the research itself.

Moreover, the progress achieved in the pre-post test of the control group came as a result of the correct repetition of one skill, which increased the stability of the motor program for the learned skill.

Conclusions

1- The use of various educational exercises helped to learn and develop sensory perception and accuracy of skill performance of some skills with the epee weapon.

2- Using various educational exercises helped build motor perception among learners, which led to accelerating and activating the learning process.

3- Various exercises, according to some of the same concepts, helped the research to quickly move between skills.

Recommendations

1- Emphasis on the use of various exercises when learning basic skills for students with epee weapons to build motor programs and new motor perceptions about the skill to be learned.

2- The need to focus on using various educational exercises according to building the motor program and developing sensory-motor awareness in educational units by trainers and teachers.

4- Conducting research on different samples and other skills in fencing.

WORKS CITED

Naji Mutashar Ezzat, The impact of proposed exercises to develop sensory-motor perception and decision-making in the performance of handling and shooting skills for youth handball players, Master's thesis, University of Babylon, Physical Education, 2008 AD.

Yarub Khayoun: Motor learning between principle and application, Baghdad, Al-Sakhra Printing Library, 2002 AD.

Otero, X., Santos-Estevez, M., Yousif, E., & Abadía, M. F. (2023). Images on stone in sharjah emirate and reverse engineering technologies. Rock Art Research: The Journal of the Australian Rock Art Research Association (AURA), 40(1), 45-56.

Nguyen Thanh Hai, & Nguyen Thuy Duong. (2024). An Improved Environmental Management Model for Assuring Energy and Economic Prosperity. Acta Innovations, 52, 9–18. https://doi.org/10.62441/ActaInnovations.52.2

Girish N. Desai, Jagadish H. Patil, Umesh B. Deshannavar, & Prasad G. Hegde. (2024). Production of Fuel Oil from Waste Low Density Polyethylene and its Blends on Engine Performance Characteristics . Metallurgical and Materials Engineering, 30(2), 57–70. https://doi.org/10.56801/MME1067

Shakhobiddin M. Turdimetov, Mokhinur M. Musurmanova, Maftuna D. Urazalieva, Zarina A. Khudayberdieva, Nasiba Y. Esanbayeva, & Dildora E Xo'jabekova. (2024). MORPHOLOGICAL FEATURES OF MIRZACHOL OASIS SOILS AND THEIR CHANGES. ACTA INNOVATIONS, 52, 1–8. https://doi.org/10.62441/ActaInnovations.52.1

Yuliya Lakew, & Ulrika Olausson. (2023). When We Don't Want to Know More: Information Sufficiency and the Case of Swedish Flood Risks. Journal of International Crisis and Risk Communication Research , 6(1), 65–90. Retrieved from https://jicrcr.com/index.php/jicrcr/article/view/73

Szykulski, J., Miazga, B., & Wanot, J. (2024). Rock Painting Within Southern Peru in The Context of Physicochemical Analysis of Pigments. Rock Art Research: The Journal of the Australian Rock Art Research Association (AURA), 41(1), 5-27.

Mashael Nasser Ayed Al-Dosari, & Mohamed Sayed Abdellatif. (2024). The Environmental Awareness Level Among Saudi Women And Its Relationship To Sustainable Thinking. Acta Innovations, 52, 28–42. https://doi.org/10.62441/ActaInnovations.52.4

Kehinde, S. I., Moses, C., Borishade, T., Busola, S. I., Adubor, N., Obembe, N., & Asemota, F. (2023). Evolution and innovation of hedge fund strategies: a systematic review of literature and framework for future research. Acta Innovations, 50,3, pp.29-40. https://doi.org/10.62441/ActaInnovations.52.4

Andreas Schwarz, Deanna D. Sellnow, Timothy D. Sellnow, & Lakelyn E. Taylor. (2024). Instructional Risk and Crisis Communication at Higher Education Institutions during COVID-19: Insights from Practitioners in the Global South and North. Journal of International Crisis and Risk Communication Research , 7(1), 1–47. https://doi.org/10.56801/jicrcr.V7.i1.1

Sosa-Alonso, P. J. (2023). Image analysis and treatment for the detection of petroglyphs and their superimpositions: Rediscovering rock art in the Balos Ravine, Gran Canaria Island. Rock Art Research: The Journal of the Australian Rock Art Research Association (AURA), 40(2), 121-130.

Tyler G. Page, & David E. Clementson. (2023). The Power of Style: Sincerity's influence on Reputation. Journal of International Crisis and Risk Communication Research , 6(2), 4–29. Retrieved from https://jicrcr.com/index.php/jicrcr/article/view/98

Schmidt AR: motor learning and performance from principles to practice-human kinetics book, 1991,

Richard A. Schmidt Craig A. Weisberg. Motor Learning and Performance, Second edition, Human Kinetics, 2000,.