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The constructivist learning strategy to learning the performance of the skills of the movement of legs and stabbing with a fencing foil for students

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Abstract---The importance of the research was to prepare an educational curriculum using the constructivist learning strategy in learning the performance of the skills of leg movement and stabbing with a fencing foil for students. The sport of fencing still suffers from many obstacles that delay its march forward despite the efforts being made to achieve a clear and tangible development. The ideas of researchers and specialists are still aspiring to improve the level of skillful performance and discover all that is new. By observing the results of the students in the previous years, he found that there is a discrepancy and in varying proportions in the level of learning the basic skills of the blind weapon, as the student needs diversity during his educational day because the continuity of one pace leads to the restriction and impediment of his motor and physical activity, so he must allow him to satisfy Tendency to move through competitive exercises during the unit. In order to reach better levels, the researcher decided to use the constructivist learning strategy to teach the performance of the skills of leg movement and stabbing with a fencing foil, and as an experimental attempt to identify the effectiveness of this strategy. While The aim of the research is: Preparing an educational curriculum using the constructivist learning strategy in learning the performance of the skills of leg movement and stabbing with a blind weapon for students. And knowing the effect of

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the educational curriculum using the constructivist learning strategy in learning the performance of the skills of movement of legs and stabbing with a fencing foil for students. As The researcher came out with the most important conclusions: The educational curricula (constructive learning strategy and the curriculum followed in the college) are effective curricula for learning the skills of movement of the legs and stabbing the sword in fencing. The educational curriculum designed according to the constructivist learning strategy has proven its importance and effectiveness and is better than the method used in the college in learning the skills of movement of legs and stabbing in the fencing foil.

Keywords---constructive learning strategy, legs movement, stabbing skills.

Introduction

Our contemporary world is witnessing a scientific and information revolution that exceeded the revolutions that preceded it over the centuries, and this revolution requires a strong scientific base to confront it, meaning that it needs a creative and innovative human being. Therefore, traditional learning methods are no longer in which the teacher is the only source of information and the student is a passive recipient. Rather, the concept of the educational process has become focused on modern and advanced methods and strategies in which the educational process is transmitted from the teacher to the learner, and the role of the teacher is to guide and guide, so that he directs the activity of his students. A directive that enables them to learn on their own to facilitate the learning process and reduce the learning time by making the learner a vital and active element, Which leads to an increase in the efficiency of his learning, and then the impact on the level of performance. The constructivist learning strategy is one of the educational strategies that help learners to control their thinking and raise their level of awareness to the extent that leads to achieving the goal. These processes include awareness of the basic principles of the educational material, planning the educational task that the learner will perform, And then monitoring, reviewing and modifying the processes during work to complete the educational task in the right direction, and then evaluating the success of the plan after completing the learning activities.

Accordingly, the constructivist learning strategy is a “critical and accurate component of effective learning, because it enables individuals to monitor and regulate their performance, and this in turn is reflected in students’ learning and their ability to learn the material, and then it will work to accelerate their learning” . The sport of fencing is one of the oldest known sports in the world, which has taken its spread base and is expanding little by little, due to the growing interest in its education and training. On the one hand, fencing is a sport of science and art and the way to gaining the individual health and self-confidence. It gives the individual a beautiful body, which undoubtedly helps in achieving his attractive image. The sport of fencing also develops in its practitioners balanced thinking and gives it a broad horizon of perception and

thinking, which helps the player to solve his problems and the possibility of overcoming the obstacles he faces in his life. Play performed by the swordsman during the competition. The importance of the research is the use of the constructivist learning strategy in learning the performance of the skills of leg movement and stabbing with a blind weapon for students, and it is an effective method used by teachers.

Research problem

The sport of fencing still suffers from many obstacles that delay its march forward despite the efforts being made to achieve a clear and tangible development. The ideas of researchers and specialists are still aspiring to improve the level of skillful performance and discover all that is new. By observing the results of the students in the previous years, he found that there is a discrepancy and in varying proportions in the level of learning the basic skills of the blind weapon, as the student needs diversity during his educational day because the continuity of one pace leads to the restriction and impediment of his motor and physical activity, so he must allow him to satisfy His tendency to move through competitive exercises during the educational unit. In order to reach better levels, the researcher decided to use the constructivist learning strategy to teach the performance of the skills of legs movement and stabbing with a blind weapon and as an experimental attempt to identify the effectiveness of this strategy.

Research objective

- Preparing an educational curriculum using the constructivist learning strategy in learning the performance of the skills of leg movement and stabbing with a fencing foil for students.
- Knowing the effect of the educational curriculum using the constructivist learning strategy in learning the performance of the skills of leg movement and stabbing with a fencing foil for students.

Research hypotheses:
The constructivist learning strategy has a positive effect in learning the performance of the skills of leg movement and stabbing with a fencing foil for students.

Research fields

- **Human field**: Third stage students in the College of Physical Education and Sports Sciences, University of Babylon for the academic year 2021-2022.
- **Time field** : the period from 10/ 1/2022 to 20 /5/2022 .
- **Spatial field** : Fencing Stadium at Babylon University.

Research Methodology and Field Procedures

Research Methodology

The researchers adopted the experimental approach by designing the equivalent group.

The research community and its sample

The research community was selected by students of the third stage in the College of Physical Education and Sports Sciences, University of Babylon for the academic year 2021-2022, and their number is (80) students representing three divisions. students for the experimental group and 15 students for the control group.

Means of collecting information

Tools used in the research

- Arab and foreign sources
- observation
- questionnaire
- objective tests..

Devices and tools used in the research

- - Stopwatch (1) .
- Sony camera (1) .
- Tape measure .
- Adhesive tape .
- Roller shutters (30) .
- Head guards (30) .
- Metal breastplates for blinds (30) .
- Wall-mounted device for appeal (2).

Field research procedures

Determining the skills investigated

The skills were determined within the courses of the second course for third-year students at the University of Babylon, College of Physical Education and Sports Sciences, in fencing for the academic year 2021-2022.

Exploratory Experience

The researcher conducted this experiment on a sample of the third stage students, numbering (10) students on (10/2/2022) the fencing stadium at the University of Babylon. The researcher used a Sony imaging tool and the aim of this experiment was the following:

- Ensure the place of application of the educational curriculum and its suitability.
- The extent to which the sample understands the application of the curriculum, the time taken to implement it, and the best way to implement it.

- Knowing the difficulties that may face the course of work and developing the most appropriate solutions to them.

The exploratory experiment has achieved all its objectives.

Videography (pre-test)

The tribal video filming was carried out on February 15, 2022 at ten in the morning in the fencing hall. The researcher worked on preparing the photography requirements, tools and the auxiliary work team. During filming, the researcher used a Japanese-made Sony tool, and to identify the level of performance of the students, the film was shown to a group of arbitrators in this field to evaluate the motor performance of the selected skills under research with a special form for this purpose. The researcher also installed all the conditions related to the tribal video imaging such as the place, time and method of implementation in order to create the same conditions as possible when conducting remote video imaging.

The homogeneity of the sample members and the equivalence of the two research groups

To reduce the impact of the extreme values of the data, the research sample must be homogeneous as well as return the differences to the independent factor of achieving parity between the two research groups in all conditions and variables except for the independent factor affecting the experimental group without the control, and since the researcher's choice of the research sample from one stage who did not They are exposed to any previous educational effects in the sport of fencing, so the sample is homogeneous, bearing in mind that the learning process to be measured is the form of the apparent performance only. Yarub Khayun affirms, "When conducting an experiment in kinesthetic learning, it is better to choose a novice sample in the skills to be learned." It gives a great indication of the homogeneity between the sample members in terms of age (being in one stage), educational experience, of the same sex, and they learn from one teacher and on the yard. One and the other variables that have an impact on the learning process. As well as excluding the results of the students who failed last year and those who failed to perform the pre and post video photography. For the purpose of finding equivalence between the two groups of the research sample, and starting from one starting point between the control and experimental groups, the (t-test) law was used for independent samples in the tribal imaging of the skills under study, as shown in Table (1).

Table 1
shows the equivalence of the two research groups in the tests

Variables	Pre-test		Post-test		(T) calculated	Sig level`	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
normal progress	3.20	0.83	3.18	0.79	0.04	0.729	Non sig
reverse	3.44	0.69	3.40	0.62	0.12	0.618	Non

progress							sig
jump progress	2.75	0.59	2.77	0.60	0.33	0.783	Non sig
normal undo	3.22	0.59	3.29	0.60	0.36	0.759	Non sig
Backtracking	2.15	0.98	2.20	0.57	0.70	0.589	Non sig
jump back	3.33	0.53	3.21	0.72	0.66	0.766	Non sig
stabbing movement	3.21	0.56	3.17	0.46	0.7	0.521	Non sig

Thus, the differences are not statistically significant, which indicates that the control and experimental groups are equal in all tests.

Designing the educational curriculum according to the constructivist learning strategy

After reviewing many sources and studies and conducting personal interviews with experts in the field of kinetic learning and teaching methods, and based on the classification presented by (Zaytoon), (Maxios), (Affana, and others), (Fahmy Abdel-Sabour) for the stages of the constructivist learning strategy, he developed The researcher's educational curriculum for the current study, which included five sub-stages linked with each other, It is derived from the classification presented (of the constructivist learning strategy, which includes (integration or preoccupation, exploration, interpretation or explanation, expansion, evaluation). In the research, which includes (leg movement and stabbing with a blind weapon), the educational curriculum included the following stages:

Integration stage

In this step, learners interact with new experiences. They have many questions about skills: Through this stage, the researchers aims to teach the students how to use the new information to achieve their goals in the educational unit, through the students' knowledge of the purpose of the educational unit to learn the skills under research, for example, and their ability to classify their types, and their awareness of what they need in terms of experiences and physical, motor, skill and planning abilities. And their awareness of how to analyze skill performance (technics), i.e. knowing its parts and their ability to link these parts together to perform them fully, as well as their awareness of what they already know about this skill, and to find appropriate answers to these questions.

Exploration stage

In this step, they explore ideas and activities that were not known to them before, and the previous information here helps them: The researchers aims through this stage to teach students how to use and develop the exploration stage to achieve their goals in the educational unit through the process of building procedures and organizing them step by step, which the students perform to reach an achievement that achieves the goal that was set in advance ie teaching students

how to be self-reliant in exploring skills During the learning process to describe the skill and divide it.

Explanation stage

This stage relates to each learner's explanation of the knowledge he has reached, with the knowledge of the goals that will be accomplished in it: During this stage, the researchers aim to teach students how to use and develop the skills they learned by continuously monitoring their performance and giving feedback on each skill, as well as discovering their weaknesses and strengths, addressing their shortcomings, controlling the results of their steps, and directing their goals in the right direction, which will eventually lead to Each student checks their comprehension of the material while correcting their misconceptions about the skill.

Expansion stage

This stage is related to comparing the desired goal with what was achieved in the previous stage on the ground through the expansion of the skill and its exercises: Through this stage, the researchers aims to teach students how to use and develop them through the process of monitoring the achievements they have achieved through performing their tasks by informing each student of the results of his evaluation at the end of the educational unit.

Evaluation stage

This stage includes the use of the teacher to evaluate students by asking questions and showing films about skills to achieve the goal through experimentation and practice: During this stage, the researchers aims at how to evaluate the performance of the skills and their understanding of the skills that they implemented, which include (leg movement and stabbing with a blind weapon) by applying them by the students and giving them reinforcement feedback before starting with asking questions about the skills in question. Accordingly, the educational curriculum designed according to the constructivist learning strategy was implemented in the second course of the academic year (2021-2022) and for the period from 20/2/2022 to 19/4/2022, as the application of the curriculum took (16) educational units at an average of (2) One educational unit per week. As for the curriculum adopted and approved by the college, it was applied to the control group.

Video photography (post-test)

After completing the main experiment and applying the vocabulary of the educational curriculum to teach the skills of leg movement and stabbing in the blind weapon. The researcher made a video post-imaging on, after that, this imaging is presented to the arbitrators in order to evaluate the motor performance by using a special evaluation form for this performance. Then, the results of this imaging are compared with the tribal imaging so that the researcher can know which of these methods give the learner the best performance.

Statistical means

- Arithmetic mean.
- The standard deviation.
- t-test for symmetrical samples.
- t-test for independent samples.

Presentation, analysis and discussion of the results

Presenting the results of the pre and post imaging of the control group in the selected skills under study and analysis

Table 2
shows the values of the means, standard deviations, the difference of the means, standard deviations, and the (t) value calculated for the control group

Variables	Measurement unit	Pre-test		Post-test		(T) calculated	Sig level`	Sig type
		Mean	Std. Deviation	Mean	Std. Deviation			
normal progress	Degree	3.20	0.83	4.36	0.65	4.16	0.000	Sig
reverse progress	Degree	3.44	0.69	4.55	0.55	4.03	0.000	Sig
jump progress	Degree	2.75	0.59	3.93	0.46	2.81	0.000	Sig
normal undo	Degree	3.22	0.59	4.69	0.40	3.02	0.000	Sig
Backtracking	Degree	2.15	0.98	4.16	0.53	4.47	0.000	Sig
jump back	Degree	3.33	0.53	4.51	0.31	3.11	0.000	Sig
stabbing movement	Degree	3.21	0.56	4.41	0.26	3.39	0.000	Sig

Table (2) shows a development for all tests. The t-test value calculated for the corresponding samples between the pre and post imaging in the selected skills under study was (4.16, 4.03, 2.81, 3.02, 4.47, 3.11, 3.39), respectively. It was found to be significant. The significance level was less than (0.05), which indicates the significance of the differences between the pre and post imagings, and in favor of the post-imaging.

Presenting the results of the pre and post imaging of the experimental group in the selected skills under study and analysis

Table 3
Shows the values of the means, standard deviations, mean difference, standard deviations, and the calculated t-value for the experimental group

Variables	Measurement unit	Pre-test		Post-test		(T) calculated	Sig level`	Sig type
		Mean	Std. Deviation	Mean	Std. Deviation			
normal progress	Degree	3.18	0.79	5.43	0.48	6.37	0.000	Sig
reverse progress	Degree	3.40	0.62	5.78	0.47	7.21	0.000	Sig
jump progress	Degree	2.77	0.60	5.05	0.76	9.48	0.000	Sig
normal undo	Degree	3.29	0.60	5.72	0.99	5.80	0.000	Sig

Backtracking	Degree	2.20	0.57	5.25	0.60	6.49	0.000	Sig
jump back	Degree	3.21	0.72	5.86	0.45	7.77	0.000	Sig
stabbing movement	Degree	3.17	0.46	5.74	0.55	5.60	0.000	Sig

Table (3) shows a development for all tests. The t-test value calculated for the corresponding samples between the pre and post imaging in the selected skills under study was (6.37, 7.21, 9.48, 5.80, 6.49, 7.77, 5.60), respectively, and it was found to be significant. The significance level was less than (0.05), which indicates the significance of the differences between the pre and post imagings, and in favor of the post-imaging.

Presenting the results of the dimensional imaging of the control and experimental groups in the selected skills under study and analysis

Table 4
Shows the values of the arithmetic means, standard deviations, difference of arithmetic means, standard deviations, and (t) value calculated for the control and experimental groups

Variables	Measurement unit	Pre-test		Post-test		(T) calculated	Sig level`	Sig type
		Mean	Std. Deviation	Mean	Std. Deviation			
normal progress	Degree	4.36	0.65	5.43	0.48	3.45	0.000	Sig
reverse progress	Degree	4.55	0.55	5.78	0.47	2.27	0.000	Sig
jump progress	Degree	3.93	0.46	5.05	0.76	3.62	0.000	Sig
normal undo	Degree	4.69	0.40	5.72	0.99	2.83	0.000	Sig
Backtracking	Degree	4.16	0.53	5.25	0.60	2.03	0.000	Sig
jump back	Degree	4.51	0.31	5.86	0.45	3.91	0.000	Sig
stabbing movement	Degree	4.41	0.26	5.74	0.55	3.28	0.000	Sig

Table (4) compares the results of the two groups in the post tests. The calculated t-test value for the symmetrical samples between the pre and post imaging in the selected skills under study was (3.45, 2.27, 3.62, 2.83, 2.03, 3.91, 3.28), respectively. It is significant, with a significance level less than (0.05), which indicates the significance of the differences between the two photographers and in favor of the experimental group.

Discuss the results

By noting the differences between the results of the tests in the previous tables for the skills (leg movement and stabbing with a stick) and for the control and experimental groups, their results indicated a positive difference in the differences and in favor of the post tests in all the variables investigated, as the results of the control group confirmed the researcher attributes the improvement that appeared on their results, both The skills to the vocabulary of the curriculum used, which contained good and purified exercises from the school of the subject, which also had an impact in bringing about the learning process, but with a lower

percentage than the experimental groups. As for the reason for giving preference to the experimental group over the mechanism on which the constructivist learning strategy is centered, which consists of five stages (integration, exploration, explanation, interpretation, evaluation) and the precise and focused steps included in each of these stages, which greatly helped the students to obtain the precise details of the skills under research. Which led to the accurate arrival of the information on the skill to the learners, so that the researcher at each stage looked at a specific detail and the mechanism of that stage of formulation of questions, interpretation, exploration and analysis, and then the learners' access to the correct and accurate method, and the skill was fully covered, as the process of integration, then the process of exploration, then explanation and interpretation.

Then the evaluation, which is the stages of this strategy, was a joint work between the student and the teacher, but the student here has been a recipient of information from the teacher and has become here looking for the right solutions by himself, participating with the teacher in the learning process based on what he possesses of previous information and by strengthening this information with information New helps to facilitate the learning process first. Organizing and shaping what the learner has from previous experiences, and this is consistent with the opinion of (Izza Ismail Afana and Youssef Al-Jaish) "This strategy depends on organizing the information acquired on the learner's previous experiences, so learning occurs through changing the learner's previous ideas and experiences, either by providing the learner with new experiences or Through the formation and organization of what the learner knows from the experiences, and then learning with the intended meaning occurs (Afana, Izzo Ismail & Ibrahim, Youssef, 2009,p. 175). This is in addition to the fact. The constructivist learning strategy works on acquiring the learners' ability to think by moving their thinking processes in each of its stages, and this is consistent with the opinion of (Izzu Afana and others), who sees that constructivist learning gives learners the ability to think in its different types, especially supracognitive thinking, which is a kind of Thinking through which the learner seeks to know the mental processes that he performs and the outcomes of these processes (Afana, Izzo Ismail & Ibrahim, Youssef, 2009,p. 146).

As well as the constructivist learning strategy used to teach them the skills under study and what this strategy contains of activating the various mental processes (focus, forgetting, and realization), but this strategy worked to provide them with a cognitive structure, which helped expand their perceptions and prepare them for learning, and the researcher believes in addition to that, paying attention to the learner And he made it the focus of the educational process, through his actual and effective participation in the learning process, a basic factor and a very helpful one in bringing about the learning process faster and more together with effort and time. "The learner, according to the philosophy of the constructivist learning strategy, is a discoverer of what he learns through his practice of scientific thinking. He is a searcher of meaning as well as a participant in the responsibility of learning management and its evaluation is here more active, searching and prospecting to discover the appropriate solutions to the problems, and it is the focus of this strategy and the center of its attention (Tantawi, Effat Mustafa,2009, p. 206).

The constructivist learning strategy contributed to mobilizing the latent energies of the learners due to the excitement, challenge, suspense and enthusiasm that this strategy bears, as well as giving feedback. "Feedback is the most powerful and controlling variable on the learner's performance, and there was no improvement without feedback." The instructions and directions that the learner receives and the positive interaction between the group members makes the learner an active and effective element in the learning process and not just a receiver of information, unlike the instructions and directions he receives from the subject teacher. He mentions (Nadir Jamil Dawud Al-Wazzan), as the learner performs the skill with his peers and watches his group perform this skill, this leads to better learning by enhancing performance by watching and correcting mistakes (Al-Wazzan, Nazeer Jamil Ismail Dawood, 2004, p. 45) . And (Qasim Lamzam Sabr) believes that “any work is not successful without excitement and suspense, so when the educational process is devoid of elements of suspense and excitement, its results will be negative, and in return, learning will be more positive when it provides and provides fun to the learner that helps in creating a desire to deal with the subject and the duty.” What is required is to be learned and constitutes great psychological satisfaction and acceptance, thus creating rapid learning and acquisition of sports movements and activities (Sabr, Qasim Lazam, 2005, p. 59) .

Conclusions and Recommendations

Conclusions

- The educational curricula (constructive learning strategy and the curriculum followed in the college) are effective in learning the skills of movement of the legs and stabbing the sword in fencing
- The educational curriculum, designed according to the constructivist learning strategy, has proven its importance and effectiveness, and is better than the method used in the college in learning the skills of movement of legs and stabbing in the fencing foil.

Recommendations

- Using the educational curriculum designed according to the learning strategy in learning the skills of movement of the legs and stabbing in the fencing foil in the faculties of physical education in Iraqi universities because of its active role in learning.
- The possibility of educational institutions in the Ministry of Higher Education benefiting from the results of the current research in building education programs according to the constructivist learning strategy to raise the best level.
- Conducting a similar study on other individual or team sports.

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