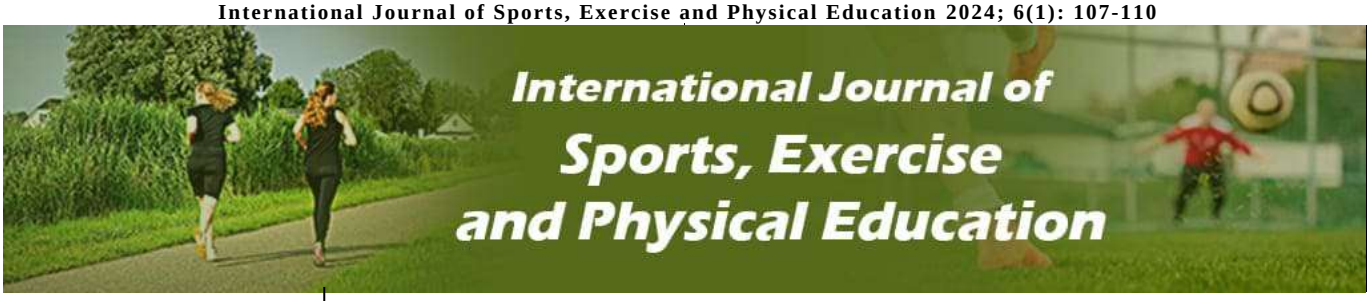

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The effect of the electronically supported Keeler strategy on learning chest lifts and jerk for students of the college of physical education

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Abstract
The purpose of this paper is to a scientific attempt to raise the level of cognitive achievement and skill performance for the chest and jerk through modern strategies (Keeler strategy) supported electronically, and to identify the impact of this strategy in developing and teaching the chest and jerk by combining the theoretical and practical aspects to help students understand the skills required according to their levels so that the student can contribute and participate more. The researcher used the experimental method, which relies on pre- and post-measurements for two groups, one experimental and the other control, because the experimental method is an attempt to control all the basic elements affecting the dependent variables in the experiment. The research community consists of first-year students at the College of Physical Education, Al-Muthanna University, whose number reached (309) students for the academic year 2023/2024. To implement the research steps in a scientific manner, a sample representative of the original community must be chosen. The research sample was randomly selected, and its number was (50) students, where the number was (40) students for the main experiment and the number was (10) students to conduct the exploratory study. One of the most important results reached by the researcher is that: Using Keeler electronically supported strategy contributed positively to learning and improving cognitive achievement in chest and jerk lifts in weightlifting, and the experimental group outperformed the control group in terms of improvement rates for the snatch skill (Under research) in weightlifting. One of the most important recommendations recommended by the researchers is that: Applying Keeler electronically supported strategy in learning the skills of other sports activities to meet and overcome individual differences among learners, and providing suitable places and halls for training and learning equipped and equipped with all modern technological means in colleges of physical education.

Keywords: Cognitive achievement, skill performance, chest and jerk

Introduction
The continuous progress in theories and concepts of learning in this era makes us in need of everything that is new and innovative in teaching strategies and methods to raise the scientific level of academic subjects in general and in lifting weights in particular, since development is nothing but a process of improving and improving performance in educational situations and its main goal is Improving the outcomes of the educational process that represent proficient performance. (1:92).

In order to achieve the goals in an optimal way in teaching chest raises and lats, technology must be introduced into the field of education, as it can give us the opportunity to get rid of the traditional method of teaching and keep pace with modern philosophies that depend in their continuous progress on the use of modern technologies and strategies that make learners more effective within the process. Educational. (12:369).

Keeler strategy is one of the methods of individualizing learning and is based on the learner studying the subject according to his abilities and speed. Thus, the basic principle upon which this learning strategy is based is that the learner comprehends all the concepts of the educational unit and increases his effectiveness and his acquisition of knowledge and mastery of skills before moving on to the next unit. Thus, the learner is Contributor and active instead of just being receptive to the information conveyed to him. (3:656).

Research objective

A scientific attempt to raise the level of cognitive achievement and skill performance for the chest and jerk through modern strategies (Keeler strategy) supported electronically, and to identify the impact of this strategy in developing and teaching the chest and jerk by combining the theoretical and practical aspects to help students understand the skills required according to their levels so that the student can contribute and participate more.

Research methodology and field procedures

Research Methodology

The researcher used the experimental method, which relies on pre- and post-measurements for two groups, one experimental and the other control, because the experimental method is an attempt to control all the basic elements affecting the dependent variables in the experiment. Marwan Abdel Majeed.

Community and sample research

The research community consists of first-year students at the College of Physical Education, Al-Muthanna University, whose number reached (309) students for the academic year 2023/2024 AD. To implement the research steps in a scientific manner, a sample representative of the original community must be chosen (87:8)

The research sample was randomly selected, and its number was (50) students, where the number was (40) students for the main experiment and the number was (10) students to conduct the exploratory study.

Table 1: Shows the research community and sample and percentages

Basic research sample	Number	Percentages
Control group	20	43%
Experimental group	20	43%
Sample exploratory experiment	10	14%

Table 2: Shows the arithmetic mean, median, standard deviation, and skewness coefficient for the total research sample in growth variables

Variables	Measuring unit	Mean	Median	Std. Deviations	Skewness
Age	Year	16, 79	17, 00	0, 16	0, 86-
Length	Cm	162, 50	163, 00	1, 91	1, 22
Mass	Kg	69, 1	70, 00	1, 26	0, 21-

It is clear from Table (2) that all values of the skewness coefficients for the individuals in the research sample in growth variables ranged between (0.86: 1.22), that is, they were limited to (3), which indicates the homogeneity of the individuals in the research sample in these variables and that they fall under the moderate curve. It is characterized by moderation and natural distribution. The researcher also conducted homogeneity for the research sample in physical and skill variables, as the following tables show.

Table 3: Shows the arithmetic mean, standard deviation, median, and skewness coefficient for the research sample in some physical and skill variables

No.	Variables	Measuring unit	Mean	Median	Std. Deviations	Skewness
1.	Right grip strength test	Kg	50,01	50,00	1,10	0.70
2.	Left grip strength test	Kg	44,75	45,00	0,83	0.45
3.	Back muscle strength test	Kg	155,50	157,00	0,97	0.26-
4.	Shot put test backwards across the head with two hands	meter	9,83	10,00	0,79	0.22
5.	Test the flexibility of the shoulders and wrist	cm	70,16	70,00	1,10	0.54
6.	Test of raising the heels from a standing position on a balance beam and the barbell high at the extension of the arms above the head	second	164,61	162,00	1,09	0.16-
7.	Standing inclined prone test for 10 seconds	count	21,70	21,00	0,74	0.34
8.	Chest lifting and Jerk	degree	2,31	2,00	0,71	0.07-
9.	Cognitive achievement test	degree	7,83	8,00	1,00	0.38-

Table (3) shows that all values of the skewness coefficients for the members of the research sample in some physical variables, skills, and cognitive achievement ranged between (0.70: -38.0), that is, they were limited to (3), which indicates the homogeneity of the members of the research sample in these variables and that they fall under The equinoctial curve and its characteristic of moderation and normal distribution

Exploratory experience

It is an experimental study carried out by the researcher before conducting the research with the aim of knowing methods, obstacles, and choosing tools (83:13)

The exploratory experiment was conducted on Sunday, 5/11/2023, on a sample chosen randomly from the research community and outside the main research sample, which consisted of (10) students.

The researcher conducted an exploratory study to identify the administrative, technical and organizational aspects of the research, which were identified as follows.

- Determine the time for conducting tests and their validity.
- Validity and suitability of the place.
- Identify the obstacles that the researcher may face while conducting the main experiment.
- Determine the number of assistant staff and their efficiency.

Main experience

Pre-measurement

The researcher conducted the pre-measurement on Monday 13/11/2023 on the two research groups at eleven o'clock in the morning in the hall of Al-Muthanna University, College of Physical Education, where the skill test under study was

measured according to the specifications and special performance conditions.

Program implementation

The researcher applied the proposed educational program in the period from Wednesday, 15/11/2023 until Thursday, 26/12/2023 AD, for a period of (6) weeks, with (2) two educational units per week. Thus, the program includes (12) twelve educational units and the unit time is (45). minutes, and the research sample was subjected to direct supervision by the researcher and with the assistance of the work team

Post-measurement

The researcher conducted the post-measurement and skill performance tests on Sunday, 29/12/2023, where the same tests that were measured in the pre-measurement were applied under the same circumstances and conditions.

Results and discussion

Results

Table 4: Shows the significance of the differences between the pre and post measurements for the experimental group in the level of skill performance and cognitive achievement

Variables	Pre- measurement		Post- measurement		T value
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation	
Chest lifting and Jerk	2,11	0,67	20,32	0,95	* 92,72
Cognitive achievement	7,49	0,93	33,12	1,02	* 97,33

It is clear from Table (4) that there are statistically significant differences at a significant level (0.05) between the means of the pre- and post-measurement and in favor of the post-measurement among the experimental group in the skill level and cognitive achievement under study, where the calculated (t) value was limited to between (92,72: 97, 33).

Table 5: Shows the significance of the differences between the pre- and post-measurements of the control group in the level of skill performance and cognitive achievement

Variables	Pre- measurement		Post- measurement		T value
	Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation	
Chest lifting and Jerk	7,81	0,72	14,01	1,05	* 43,96
Cognitive achievement	2,49	1,03	22,88	1,39	65,42

Table (5) shows the presence of statistically significant differences at a significant level (0.05) between the means of the pre- and post-measurements and in favor of the post-measurement among the control group in the skill level and cognitive achievement under study, where the calculated (t) value was limited to (* 43.96).:* 65, 42).

Discussing

Table (4) shows the percentages of progress of the post-measurement over the pre-measurement for the experimental group in the cognitive achievement test, as it is clear that the average of the cognitive achievement test in the pre-measurement for the experimental group (individuation of electronically supported education) is (7.49) degrees and in the post-measurement is (33.12) degree. The researcher attributes this progress to the students' use of the computer in the learning process using the electronically supported Keeler strategy, and through the students' interaction with the program and learning how to operate it, displaying serial images, animations, texts, videos, and exercises. All of this helped the students to learn quickly and proficiently as a result of the presence of an attractive educational climate, as it is considered the computer is the language of the modern era. The computer has entered all different fields of life, including the field of education. The computer is considered one of the most important devices that help students interact with the educational material. We rarely find a student who cannot use the computer, whether in games, the Internet, or at school, and therefore you should make the most of this device in the learning process. Keeler strategy provides each learner with an education that suits his needs, matches his capabilities and capabilities, and is consistent with his inclinations and personal speed. It is also based on concern for all members of the education. (5:34) Dividing the educational situation leads to increasing the chances of success, reducing the wrong response, avoiding the negativity of the learners, increasing their positive participation and gaining experience and capabilities, performing each exercise and repeating it according to what is needed in an attempt to reach the best. (43:2) Some students learn by hearing, others by sight, some of them depend on motor activity, and others depend on interaction between them and their colleagues or between them, while the traditional method in which the role is limited to the teacher and following the lesson and then performing the traditional without the ability to make decisions and take the initiative in performing the duty. Movement by learners, which affects the effectiveness of the educational process. (12:11) (7:25).

Table (5) shows the arithmetic mean, standard deviation, and T value between the pre- and post-measurements for the control group in the skill test and the cognitive achievement under study. It is clear from the table that there are statistically significant differences at the level of (0.05) between the pre- and post-measurements for the control group in the skill test. In addition, cognitive achievement, and in favor of the post-measurement, where the tabular (t) was (2.09) and the tabular (t) was limited to between (43.96: 65.42) 0. The average test score for the lifting to the chest test for the control group (Explanation and model) was average. The pre-measurement average was (7.81) grades and the post-measurement average was (14.01) grades. The average of the cognitive achievement test in the pre-measurement for the control group was (2.49) grades and the post-measurement average was (22.88) degree.

The educational process in the traditional method depends mainly on the teacher, as he is the one who explains, interprets, and observes, and he is the one who makes decisions, and the active role falls on him by intervening to

find possible motor solutions and repeating that to arrive at better motor solutions, (25:10) (9:27).

The traditional method used (Verbal explanation) in education must be changed to meet the purposes and objectives of modern education and the necessity of it responding to the conditions and stages of physical, motor and psychological development and meeting the quantitative increase in the preparation of learners. (4:45) (6:25).

From here, the researcher concluded the percentages of progress in the post-measurement over the pre-measurement for the experimental and control groups in the skill test, as it became clear that the average score for the chest lift and jerk test for the experimental group (Keeler electronically supported strategy) in the pre-measurement was 2.11 degrees and in the post-measurement was 20.32 degrees, and the average The percentage of improvement was 8540.41. As for the control group (Explanation and model), the average of the pre-measurement was 7.81 degrees, the average of the post-measurement was 14.01 degrees, and the average percentage of improvement was 460. From the above it is clear that the percentage of improvement of the experimental group (Keeler electronically supported strategy) in the skill test under study is better. From the control group (explanation and model) the percentages of progress in the post-measurement over the pre-measurement for the two groups in the cognitive achievement test, as it becomes clear: The average of the cognitive achievement test in the pre-measurement for the experimental group (Keeler electronically supported strategy) is 7.49 degrees and in the post-measurement it is 33.12 degrees. The average percentage of improvement was 34173. As for the control group (explanation and model), the average of the pre-measurement was 2.49 degrees, the average of the post-measurement was 22.88 degrees, and the average percentage of improvement was 192.08%. From the above, it is clear that the percentage of improvement of the experimental group in the cognitive achievement under study is better than the control group (Explanation and model).

Conclusion and Recommendations

Conclusion

- Using Keeler electronically supported strategy contributed positively to learning and improving cognitive achievement in chest and jerk lifts in weightlifting.
- The experimental group outperformed the control group in terms of improvement rates for the snatch skill (Under research) in weightlifting.

Recommendations

- Applying Keeler electronically supported strategy in learning the skills of other sports activities to meet and overcome individual differences among learners.
- Providing suitable places and halls for training and learning equipped and equipped with all modern technological means in colleges of physical education.

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