The Impact of Using Cooperative Learning in Acquiring some Elements Physical Fitness of Students

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Abstract

Purpose - The study aimed at identifying the impact of using cooperative learning in acquiring some elements of physical fitness of the students at the Hashemite University. The experimental design was used. The sample consisted of (32) students enrolled in academic programs of the faculty of Physical Education at the Hashemite University during the first semester of the university academic year 2022/2023. The sample was randomly select. Methodology - The sample was divided into two equal groups control group (n=16) and experimental group (n=16). After applying the tests on the elements of the method (flexibility, agility, medical ball throws, and 50-meter running). The reliability coefficient was calculated using Chronbach Alpha (0.92). The means, standard deviations, and T-test were calculated to determine the differences between the groups. Findings - The results showed an effect of cooperative learning on improving physical fitness, and statistically significant differences in favor of the experimental group. The researchers recommended applying cooperative learning while teaching the physical education.

Keywords: Cooperative Learning, Physical Fitness, Students.

Countries have attached an important role to the educational process because of its great role in the future, so they directed all their efforts to work on it. The teaching process received a lot of attention. Educational institutions seek to achieve the objectives of the educational process with a high efficiency, and accuracy, through new teaching styles that help the student to make a positive participation in the educational process. This development in the teaching styles aims to get the learner to approach high efficiency and achieve the anticipated goals. Learning is influenced, to a fair extent, by the teaching styles used by the teacher. Therefore, teaching based on experimentation and application with its effects is transferred easier and faster than learning indoctrinated to the learner. Good teaching is the teaching that works toward creating teaching situations that contribute to the achievement of the desired targets.

New methods in teaching emerged which help in the learning process from the teacher to the learner (Al -Haliq et al, 2014). It is necessary

to use more than one way to transfer the information to the students through diversification and development of physical education teaching styles, in order to address the individual differences by better methods. And there is no single ideal method to teach physical education, and the selection of the method is primarily based on the educational status of each educational setting. The physical education lesson success relies on the method and the style or strategy applied in teaching, through which the students acquire motor skills (Al-Dasouqi et al, 2021; Oudat et al, 2022).

Physical education is one of the important aspects of the educational and teaching processes, especially in the current era, in which high values were set for the physical activity, as it has many positive effects on the individual. Physical education teacher is one of the basic pillars of the educational process, which its level and status in the community depends, to a wide extent, on the role and level of the teacher's performance and his/her achievement of the tasks and educational responsibilities, the job of teacher is no longer confined to providing information and facts. Rather, he is the organizer of the educational experiences that facilitate teaching process to fit the student's abilities (Oudat, 2012; Abdel Hamid et al, 2021).

Physical education witnessed many changes to keep pace with the recent developments for the students to acquire the Physical, motor, physiological traits (muscular strength, speed, cardio-respiratory endurance; kinetic, harmonic abilities (flexibility, agility, harmony, balance, accuracy) that help them perform their daily life requirements efficiently and distinctly, to promotes the development of thought, ability to solve the problems, group work, collaborative learning, and leadership qualities (Oudat & Al-Luwaici, 2022).

The significance of the study is that examines the effect of the cooperative learning strategy in improving and developing some elements of physical education (speed, agility, flexibility, muscular strength, balance), through the use of five areas of physical fitness (set up, flexibility, push up, speed and endurance). as well this study emphasizes the importance of using the cooperative learning strategy in teaching the physical education.

Throughout the researchers works in teaching physical education, sensed a decrease in the impact of the physical education lesson on the students' acquisition of certain physical fitness. From this standpoint, the study problem surfaced, which is research to reach the effect of the cooperative learning on certain physical fitness elements among the students.

The study was objective identifying the effect of using the command style in acquiring some elements physical fitness of the students at the Hashemite University, and also was identify the effect of using the cooperative learning in acquiring some elements physical fitness of the students at the Hashemite University, and identifying the differences between the two groups (control and experimental) on the students' acquisition of certain some physical fitness elements.

METHODOLOGY

2.1 Participants

The sample consisted of (32) students of the students of the faculty of Physical Education and sport science at the Hashemite university during the first semester of the university academic year 2022/2023 who were randomly chosen. Who were distributed over two equal (experimental and control) groups after applying the tests on the elements of the method (flexibility, agility, medical ball throws, and 30-meter running). The sample was redistributed over control group (n=16) and experimental group (n=16). To ensure the parity of the groups in the pre-measurement of the physical fitness elements, the researchers obtained the means and standard deviations of the pre-test. The further applied the independent sample t-test according to the growth indicators (age, height, weight), and the pre-tests, table (1) illustrate it.

Table 1. Sample responses in the pretest to reveal the differences between the control and experimental groups in indicators of growth and physical fitness elements (N = 32).

Skills	Group	M	SD	T Value	Sig
Age (year)	Control	20.25	0.51	1.542	0.423
	Experimental	20.31	0.42		
Height (cm)	Control	180.10	4.34	2.310	0.874
	Experimental	177.12	4.42		
Weight (kg)	Control	78.10	3.72	1.245	0.296
	Experimental	77.32	4.10		
Flexibility	Control	9.84	2.21	0.984	0.443
	Experimental	9.45	1.98		
Agility	Control	11.25	0.41	2.334	0.313
	Experimental	11.62	0.48		
Medical Ball Throw	Control	4.28	0.88	0.856	0.853
	Experimental	4.32	0.92		
30-Meter Running	Control	3.33	0.51	0.789	0.486
	Experimental	5.12	0.48		

Table (1) shows that there is no difference statistically significant at (0.05) level between the two groups (control and experimental) in indicators of growth and physical fitness elements. This indicates the parity between the two groups in the pretest.

2.2 VARIABLES OF STUDY

The independent variable (The cooperative learning method). And the dependent variable (The students' acquisition of certain physical fitness elements).

2.3 DATA ANALYSIS

The researchers used the statistical significance of the SPSS program and carried out the required statistical processing after collecting the data: (Means (M), Standard deviations (SD) of the pre and post-measurement, (t-test) of Independent samples.

2.4 STUDY LIMITATIONS

- Temporal domain: The first semester of the academic year 2022/2023.
- Spatial domain: Faculty of Physical Education and Sports Sciences - The Hashemite University.
- Human domain: Faculty of Physical Education and Sports Sciences - The Hashemite University.

FINDINGS AND DISCUSSION

First Question: Is there an effect of the use of the command style in acquiring some elements physical fitness of the students at the Hashemite University? To answer this question, the MD and SD and T value, table (2) illustrate it:

Table 2. Sample responses between the pretest and posttest of the control group in physical fitness elements (N = 16).

Skills	Pretest		Posttest		T Value	Sig
	M	SD	M	SD		
Flexibility	9.84	2.21	10.23	1.31	1.617	0.542
Agility	11.25	0.41	11.89	0.51	2.845	0.149
Medical Ball Throw	4.28	0.88	4.91	0.79	0.642	0.249
30-M Running	3.33	0.51	3.76	2.31	2.341	0.462

Table (2) shows that there is no difference statistically significant at (0.05) level between

the pretest and posttest of the control group in physical fitness elements (Flexibility, Agility, Medical Ball Throw, 30-M running).

This is consistent with Oudat (2002); and Ibrahim (2012) that the command style has a positive effect on the development of the physical fitness elements, because the teacher the focus of the teaching process, which reflects appropriately on the students' engagement in the physical education lessons, as this teaching style improves the physical fitness subject matter of this study. On the other hand, the command style indicates that the students are not allowed to demonstrate their applied activity unless under instructions from the teacher, which leads to a lack of satisfaction feeling and being far from the students' privacy and abilities, leading to alack to implement the skills of the physical education lesson.

The researchers' attributes this to that the command style lacks group cooperation and competitive spirit among the students. Consequently, it does not allow them to compare their performance to know how far are they from the goal they are seeking to reach. It further does not allow them to take any of the teaching process decisions, as all the decisions are only those of the teacher. In addition, the creative aspect of the learner in this method is determined by the teacher. This result is in line with the study of Al-Noubani (2015), who provided that all these points, collectively, were less effective and influential in the command style at the students' level during the physical education lesson.

Second Question: Is there an effect of the use of cooperative learning in acquiring some elements of physical fitness of the students at the Hashemite University? To answer this question, the MD and SD and T value, table (3) illustrate it:

Table 3. Sample responses between the pretest and posttest of the experimental group in physical fitness elements (N = 16).

Skills	Pretest		Posttest		T Value	Sig
	M	SD	M	SD		
Flexibility	9.45	1.98	14.64	1.82	6.231	0.000
Agility	11.62	0.48	16.25	0.82	4.520	0.001
Medical Ball Throw	4.32	0.92	8.65	0.63	4.565	0.002
30-M Running	5.12	0.48	8.42	0.32	3.289	0.000

Table (3) shows that there are statistically significant differences at (0.05) level between the pre and posttest of the experimental group in physical fitness elements (Flexibility, Agility, Medical Ball Throw, 30-M running). From the researchers' point of view, this is due to the effectiveness of the cooperative learning on the physical performance level. This is also due to proper planning during the lesson preparation according to the applicable scientific bases of this method, in terms of application and the required iterations of each task, which improved the acquisition level of physical fitness.

Furthermore, the differences were in favor of the posttests during the lesson through using cooperative learning, which helped in improving the student's performance. In this concern, cooperative learning focuses on giving the students opportunities to the lesson skills as per their abilities, and with the appropriate movement rhythm of each student according to her choice. It also provides chances for repetition, iteration, and providing feedback from the teacher, if necessary. The result of this study is in agreement with that of Mosston and Sara (1999) Vrnadakis et al (2018) that indicated the effect of cooperative learning on learning the skills. This result is also in line with that of Al-Khalaf & Diabat (2013), which pointed to the positive effect of the cooperative teaching strategy that contributed to giving sufficient time for practical on the proper skill and application

far from the teacher's instructions, which created a noticeable improvement in skills performance. This result is also in line with that of Al-Qawqzeh (2018); Maniesi, (2022), who pointed to the use of cooperative learning in teaching physical education leads to an increase in the students' academic learning time; and that the use of this method in teaching the group games skills is better than teaching the individual games skills.

Third Question: Are there statistically significant differences between the two groups (control and experimental) on the students' acquisition of certain physical fitness elements.? To answer this question, the MD and SD and T values, in Table (4) illustrate it:

Table 4. Sample responses in the post-test to reveal the differences between the control and experimental groups in physical fitness elements (N = 32).

Skill	Group	M	SD	T value	Sig
Flexibility	Control	10.23	1.31	3.548	0.004
	Experimental	14.64	1.82		
Agility	Control	11.89	0.51	3.171	0.030
	Experimental	16.25	0.82		
Medical ball throw	Control	4.91	0.79	2.463	0.000
	Experimental	8.65	0.63		
30-meter running	Control	3.76	2.31	3.951	0.001
	Experimental	8.42	0.32		

Table (4) shows that there are statistically significant differences at (0.05) level in the posttest between the control and experimental groups in physical fitness elements (Flexibility, Agility, Medical Ball Throw, 30-M running) in favor of the experimental group. The researchers ascribe these differences to the use of cooperative learning in teaching the experimental group. As well as decisions that are conveyed from the teacher to the groups when teaching with acooperative learning style.

The teacher's role during the lesson lies in monitoring the group's performance and providing the appropriate feedback to each group according to her performance at the end of the lesson. This result is in line with the study of Al-Wadyan & Al-Numan (2014); Khataibeh et al (2021), which indicated that teaching through cooperative learning allows application and provides the learner an opportunity to demonstrate his/her abilities, and takes into account the sound bases of graduation from easy to difficult. Furthermore, this method takes into consideration the individual differences among the learners.

These results are in agreement with the study of Azizeh (2015); Abdel Aziz (2016), whose results emphasize the effectiveness of the cooperative learning style in teaching. And agreement with this study by Oudat (2019); Enad (2020), cooperative learning has an effect of utilizing the maximum time to apply on the skill to improve it and make it perfect. In addition, they contribute to the growth of the students in different directions and to varying degrees in the physical, skill, social, and emotional areas. In this regard, the command style, which proved its effectiveness, is no longer the only method applied in teaching, as the workers in the physical education field can apply and utilize other teaching methods that have their effects on the learning-teaching process. The results of this study are in line with that of Hassoun (2018); Hussein & Al-Hayyani (2019), that there is a positive effect of the cooperative style in the posttest on learning the skills.

CONCLUSIONS

In the light of the study discussion and results, the researchers concluded to there is a

positive effect of the practical method in improving some elements of physical fitness in the students. Cooperative learning is the optimal one for the development of technical and digital skills during teaching the physical education, and Helps teachers and trainers to choose the best method of teaching and training. The researchers recommended to increasing the use of modern educational aids in explain the skill, and reducing the use of traditional methods, including cooperative learning as an instructional curriculum within the physical education curricula, applying cooperative learning during teaching physical education.

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CONFLICT OF INTEREST

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