

The Effect of Mastery Cooperative Learning Strategy and Individual Inquiry on Attaining the Technical Aspects of the Stages of Shot Put and Digital Achievement using the Linear Method among Vietnam University Students

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Abstract

Physiological indicators say a lot about the preparedness and performance of athletes. This study investigates the Effect of mastery cooperative learning strategy and individual inquiry in using the linear method among female students of An Giang University, the study sample consisted of (57) female students enrolled in track and field course (1) at the Faculty of physical education at An Giang University during the first quarter 2016/2017. The sample was divided into three equal groups. The first group (n=19) taught using the mastery cooperative learning strategy, the second group (n=19) taught using the individual inquiry strategy, while the third group (n=19) was taught using the traditional method. Results showed that there were statistical differences in favor of the mastery cooperative learning strategy and individual inquiry strategy over the traditional way.

Keywords: Mastery Learning; Individual Inquiry; Shot Put; Linear Way

Introduction

Strategies and teaching methods have evolved as a result of the inevitable evolution of contemporary democratic societies based on modern educational psychology and educational research that took on the increase, because of the awareness of teachers and their need to change the traditional teaching methods in the

education process [1]. And the creation of modern teaching strategies to help students achieve their objectives through the creation of methods of teaching alternative consistent with the scientific development and technological progress, which has made the world a small village; which worked to increase the acceleration of knowledge transmission rapidly surpassing distances and overcome as soon as possible and with less effort than the

global openness easy and follow-up all new and sophisticated [2].

The Mastery Cooperative learning And what accompanying of sequential procedural steps and Organized to prepares the students for individual work and the division of students into heterogeneous groups to work together using dialogue and discussion and exchange of information and classification and interpretation and analysis, and evaluate and make comparisons and draw conclusions and generate ideas and guidance from the teacher; important in highlighting the role of student and refine her personality and the ability to cooperate and communicate with others and acceptance and access for students to the point of perfection in the acquisition of skills and motor abilities [2].

Many author agree that cooperative learning has many benefits that distinguish it from the rest of the strategies through the development of the capacity of students to creative thinking and thinking skills over knowledge and capabilities of different thinking and take advantage of learners from each other's experiences and improve learners' attitudes towards themselves and others and curriculum, teacher and educational institution, Carol suggested a model for mastery of learning which is based on three concepts.

- The concept of educational mission(Learning Task) associated with the success of the learner in the amount of time it takes to learn that task, or how much they actually takes the learner to learn and interact with the task.
- The ability to understand (Understanding), it means learner's ability to absorb and understand the nature of the educational mission and understand it, and try to decode and analyze their symbols and try to integrate them in the proceeds of knowledge in order to Mastery
- The quality of teaching (instructional Qualities), this concept confirms to follow a variety methods of teaching to provide content to suit the majority of students, from these methods that have extreme importance in Carol model for Mastery learning is cooperative learning method. The mastery learning from the teaching strategies, which must be arranged and sequenced on the pyramid, to be taught segmented into clear phases of learning in an educational skills or more than, then testing students after they finished, if they not reach to the Mastering, they must providing additional time to perform Mastering in testing, and control of the main phases of skill before moving on to the other skills [1].

As for the strategy of directed individual inquiry, it is a way to search and investigate individually that means every individual looking for the answer to a specific question and research and investigation to find the best ways and the shortest to explore the situation or a problem concern to all students, then determined this situation and the problem and the questions that will discuss for an answer to it, then everybody is integrated in the activity that is being sought during the discussion of the results that have been reached between the students them self, and the teacher on the other hand.

This study examines the effectiveness of maturing collaborative learning and personal learning strategies in achieving the technical aspects of digital shooting and achievement stages by linear method among students of An Giang University, the survey is a more modern teaching strategy that is effective in developing scientific thinking in students, because it creates opportunities for students to practice teaching methods and practice surveys. about their own skills, so students will think and search for their teaching results, the survey strategy depends on establishing the processes applied on the basis of facing student problems, to give him the opportunity to create independent thoughts and demand the implementation of design methods To consider to achieve solutions and implementation, students collect data and sort it, then reach conclusions under the supervision of teachers.

Methods

Participants and Procedure

This study investigates the Effect of mastery cooperative learning strategy and individual inquiry in using the linear method among students of An Giang University, the study sample consisted of (57) under female students who were physical education at An Giang University. (M age = 19.6 sd =1.33 [3]. All the subjects were enrolled in track and field course (1), they were divided deliberate into three groups, the first group (n=19) taught by mastery cooperative learning strategy, the second group (n=19) have been using their individual oriented inquiry in teaching, while the third group (n=19) taught by the traditional way in teaching, Permission to conduct this study was received from the study sample and head dean of faculty of physical education at An Giang University. The students were told the purpose of the study and their rights as participants and they were asked to sign a consent form. The evaluation test of technical phases of the shot put skill was designed by the author

after consulting scientific references of track and field federation and international coaches, the author designed an educational program based on the mastery cooperative learning strategy and another one based on individual-oriented in order to improve the performance of the shot put skill for the study sample, pre-test was measured to the three study samples for the variables of this study .the variables included the stages of the shot put and digital achievement after a warm-up ,the author recording the

best of three tries, according to international law to the shot put using the legal tools approved by the International Association of track and field.. After applied the two months educational program which contained (10) units, twice units a week each unit was (90) minutes of training, the post-test were taken, The statistical processing included arithmetic mean, standard deviation, Analysis of variance, REGW comparisons Posterior.

Results

Skill parts	Group	Pre measurement		Post measurement	
		Average	Deviation	Average	Deviation
Preparation	Traditional	2.24	0.44	2.87	0.23
	Perfected cooperative	2.13	0.66	8.13	0.72
	Oriented survey	2.43	0.48	8.51	0.79
Crawling	Traditional	2.21	0.34	2.76	0.3
	Perfected cooperative	2.19	0.42	7.81	0.11
	Oriented survey	2.56	0.74	8.03	0.79
Power situation	Traditional	2.37	0.22	2.83	0.42
	Perfected cooperative	1.99	0.56	7.73	0.78
	Oriented survey	2.66	0.6	8.02	0.67
Basic accelerating situation	Traditional	2.52	0.42	291	0.42
	Perfected cooperative	2.42	0.51	796	0.28
	Oriented survey	2.46	0.58	829	1.03
Hand motion situation	Traditional	2.31	0.81	297	0.29
	Perfected cooperative	2.46	0.53	833	0.09
	Oriented survey	2.81	0.67	929	1.07
Covering	Traditional	2.31	0.39	306	0.27
	Perfected cooperative	2.56	0.38	807	1.08
	Oriented survey	2.72	0.32	844	0.75
Distance of Shot- put	Traditional	5.53	0.59	606	1.01
	Perfected cooperative	5.19	0.42	713	0.21
	Oriented survey	5.52	0.46	840	0.34

Table1: The average and standard deviation for the applied skills of shot-putting and its pre and post distances for the three groups.

Table 2 shows the average and the standard deviation and the calculated (t) result between the pre and post measurements for the perfected cooperative learning students. (t) result shows the difference for the static

significant in the applied skills of shot-put and its distance, in which all the calculated (t) result were higher than 2.878 (TM 2.878) for the level 0.01, where these differences in favor to the post measurement.

Skill Parts	Measurements	Average	Standard deviation	t results	P
Preparation	Pre	2.32	0.67	24.79	*0.000
	Post	8.11	0.71		
Crawling	Pre	2.12	0.44	24.13	*0.000
	Post	7.68	0.91		
Power situation	Pre	1.83	0.62	18.54	*0.000

	Post	7.39	0.95		
Basic accelerating situation	Pre	2.05	0.56	25.06	*0.000
	Post	7.85	0.87		
Hand motion situation	Pre	2.26	0.56	27.87	*0.000
	Post	8.31	1.02		
Covering	Pre	2.72	0.21	18.76	*0.000
	Post	8.02	1.18		
Distance of Shot- put	Pre	5.61	0.38	18.03	*0.000
	Post	7.09	0.29		

Table 2: The average, standard deviation and the calculated (t) result between the pre and post measurements for the perfected cooperative strategy group.

Table 3 shows the result average and standard deviation of the calculated (t) result between the pre and post measurements for the traditional learning group, the calculated (t) result shows the difference for the static

significant in the applied skills of shot- put as well as its distance, in which all the results were higher than 2.878 (T M 2.878) for the level 0.01, where these differences in favor to the pre measurement. [3].

Skill Parts	Measurements	Average	Standard deviation	t results	P
Preparation	Pre	2.22	0.57	14.19	*0.000
	Post	2.91	0.61		
Crawling	Pre	2.32	0.44	11.13	*0.000
	Post	2.68	0.31		
Power situation	Pre	2.21	0.62	9.54	*0.000
	Post	2.32	0.55		
Basic accelerating situation	Pre	2.25	0.52	15.06	*0.000
	Post	2.88	0.37		
Hand motion situation	Pre	2.23	0.46	17.37	*0.000
	Post	2.31	0.22		
Covering	Pre	2.72	0.21	14.56	*0.000
	Post	2.02	0.18		
Distance of Shot- put	Pre	2.6	0.28	11.03	*0.000
	Post	2.09	0.21		

Table 3: The average, standard deviation and the calculated (t) result between the pre and post measurements for the traditional group.

Table 4 shows the average and the standard deviation and the calculated (t) result between the pre and post measurements for the individual oriented survey group, the calculated (t) result shows the difference for the static

significant in the applied skills of shot-put as well as its distance were higher than 2.878 (TM 2.878) for the level 0.01, where these differences in favor of the post measurement [3].

Skill Parts	Measurements	Average	Standard deviation	t result	P
Preparation	Pre	2.65	0.49	36.09	*0.000
	Post	7.67	0.85		
Crawling	Pre	2.21	0.69	27.23	*0.000
	Post	6.98	0.54		
Power situation	Pre	2.57	0.43	34.12	*0.000
	Post	7.89	0.65		

Basic accelerating situation	Pre	2.31	0.39	25.91	*0.000
	Post	8.19	0.99		
Hand motion situation	Pre	2.65	0.51	19.06	*0.000
	Post	8.76	0.95		
Covering	Pre	2.72	0.59	28.45	*0.000
	Post	8.12	1.04		
Distance of Shot- put	Pre	5.45	0.42	12.23	*0.000
	Post	7.01	0.6		

Table 4: The average, standard deviation and) calculated (t) result between the pre and post measurements individual oriented survey group.

Table 5 shows the results for analyzing the contrast unilateral for the stages of shot-put skill and the throwing distance in the pre measurement as well as the calculated (F) result which shows the difference for the static

significant for the level 0.01 in the applied skills of shot-put and its distance, in which all the calculated results of (F) results were higher than 3.78 (FM 3.78).

Skill Parts	Contrast Source	Sum of freedom	Degrees of freedom	Average squares	F result	P
Preparation	Between groups	272.12	2	132.12	289.12	*0.000
	In groups	19.01	55	0.42		
	Total	291.13	57			
Crawling	Between groups	223.49	2	118.72	178.39	*0.000
	In groups	23.09	55	0.34		
	Total	246.58	57			
Power situation	Between groups	251.71	2	119.56	182.13	*0.000
	In groups	24.36	55	0.67		
	Total	276.07	57			
Basic accelerating situation	Between groups	276.34	2	132.23	201.09	*0.000
	In groups	29.72	55	56		
	Total	306.06	57			
Hand motion situation	Between groups	253.23	2	123.56	178.65	*0.000
	In groups	26.32	55	0.65		
	Total	279.55	57			
Covering	Between groups	243.45	2	125.56	181.09	*0.000
	In groups	27.12	55	0.71		
	Total	270.57	57			
Distance of Shot- put	Between groups	14.27	2	9.08	45.56	*0.000
	In groups	24.65	55	0.15		
	Total	38.92	57			

Table 5: Results for analyzing the contrast unilateral for the stages of shot-put skill and the throwing distance in the post measurement for the three groups.

Through Table 6 shows the results for the REGW test for choosing the contrast source in the applied skills of shot-put and its distance. The results found that the difference between the traditional group and the perfected cooperative group and between the traditional

group and singles oriented survey group, while there wasn't any difference with a static significant between the perfected cooperative group and the singles-oriented survey group in the applied skills or the distance of shot-put.

Skill parts	Students	Average	Deviation	Perfected cooperative	Oriented survey
Preparation	Traditional	2.97	0.31	-5.31	-5.69
	Perfected cooperative	8.12	0.67		-0.39
	Oriented survey	8.58	0.88		
Crawling	Traditional	2.19	0.26	-4.91	-5.09
	Perfected cooperative	7.68	1.02		-0.12
	Oriented survey	7.92	0.87		
Power situation	Traditional	2.78	0.39	-4.81	-5.09
	Perfected cooperative	7.17	0.97		-0.27
	Oriented survey	8.01	0.78		
Basic accelerating situation	Traditional	2.84	0.34	-5.03	-5.29
	Perfected cooperative	7.94	0.88		-0.3
	Oriented survey	8.29	1.01		
Hand motion situation	Traditional	2.97	0.21	-5.36	-5.67
	Perfected cooperative	8.33	1.04		-0.29
	Oriented survey	8.68	1.01		
Covering	Traditional	2.98	0.19	-5.09	-5.33
	Perfected cooperative	8.02	1.21		-0.34
	Oriented survey	6.02	0.56		
Distance of Shot- put	Traditional	7.19	0.29	-1.06	-1.32
	Perfected cooperative	6.09	0.31		-0.27
	Oriented survey	7.46	0.59		

Table 6: Shows the results for the REGW test for choosing the contrast source in the applied skills of shot-put and its distance.

Discussion

According to the results of this study, the author found that there was a positive effect in using the perfected cooperated learning strategy on the study variables in acquiring the technical stages for effective performance of shot-put in a linear way. There was a static significant in improving those variables.

Attribute the author that the positive effect to the effectiveness of teaching strategy perfected cooperative learning and characterized by positive interaction and investment times of lectures fully effective and take into account individual differences among students on the one hand and the teacher on the other hand, and that can work on the access of all students to a high degree of workmanship skills for all technical stages of performance and enable students of the ability to The ability to make decisions for themselves after providing them with the necessary and required information after explaining the technical stages of the event, presentation to parts of effectiveness during the lesson, which led to increased digital achievement to the performance of the students and it is due to mastering the technical stages and their

characteristics by taking into account individual differences among students and competition among them and help each other and perseverance in order to increase the degree workmanship and distinguish them from each other and their interaction outstanding with this method and the diversity of teaching methods in achieving the objectives and so that the method of the effective role and influential in the educational process in the curriculum to be implemented and that the teaching methods affect learning and the degree of saturation speed in learning and adaptation with the way depends on the proper understanding of, and the desired state of learning, and research and investigation This will be the role of the student to take responsibility by harnessing all the educational possibilities, educational techniques and modern teaching methods and indirect methods of assessment, and these results are consistent with the findings of both studies [4].

The results related to the traditional way, confirmed that the difference for the static significant in the applied skills of shot-put as well as its distance all the differences were in favor of the post measurements. Researcher found that the traditional way had an effect on the

acquisition of the technical stages in the shot put and digital achievement in the dimensional measurements, but the results of the REGW test showed that the differences were in favor of the perfected cooperative group over the traditional group this result is in agreement with the studies of Mohammad D [5].

According to the REGW test results for choosing the contrast source in the applied skills of shot-put and its distance. We found that the difference were between the traditional group in one hand and the perfected cooperative group and singles oriented survey group in the other hand. Otherwise there wasn't any difference with a static significant between the two groups; perfected cooperative and the singles-oriented survey, in the applied skills or the distance of shot- put, these results are consistent with a study [6].

The author found a positive and special effect of the oriented survey strategy on the study variables in acquiring the technical stages for the effective performance of shot-put in a linear way. It provided positive interaction and it was a good investment of lectures time, taking in consideration individual differences between students through discussion and dialogue which held between the students and the teacher the thing that help them solve the performance problems, Hassan [7] noted that through discussion and dialogue which held between the students and the teacher, they investigated the most appropriate way for the completion and criticism of colleagues and sensitivity to detect problems and solve them in a scientific logical way, leading them to be creative in discovering the methods and technical ways to check the level of advanced learning, guiding them to acquire scientific thinking and analytical and critical skills of the positions and the various educational missions, they had assigned to the various students who work with each other and debating among themselves, so each individual felt responsibility towards her group in order to develop the right direction towards the study and the development of skills and the ability to generate ideas to get to the good performance and constructive and valuable information to achieve their goals, the cooperative learning strategy is one of the strategies that needs to be art of leadership to reach the goals, and it is one of the influential strategies in the educational experiences, which calls for attention in the teaching-learning process, and the thrill and attention and motivation to learn, and that the students who are working in accordance with cooperative groups can understand and accommodate educational materials, better than students who are working individually and

these results are consistent with studies [5]. And the other studies in the field of science survey showed the effectiveness of the strategy [8].

Conclusion

In the light of the executive procedures of the current study and the results that have been reached, it is concluded the following:

- The process of using the perfected cooperative learning strategy accelerate learning and the acquisition of motor skills and improve the level of technical performance of the stages of shot- put .
- The process of using individual survey directed strategy accelerates the learning process and improve the level of technical performance and achievement of the effectiveness of the distance achieved with the shotput.
- The process of using perfected cooperative learning strategy helps achieve distance in the shot- put games for the study sample.
- The process of using the perfected cooperative learning strategy saves a lot of time and effort and the ability to acquire practical skills among the sample of the study.
- The process using perfected cooperative learning strategy raises the students thinking and accepting teamwork among students of cooperation and helps each other and overcome them in all educational learning situations in groups.
- The process of using individual survey orientated strategy raises the students thinking and acceptance of individual work between students by researching and investigating to find the best solution to solve the problems and to answer questions posed to students by the teacher.

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