Design for Scientific RENAISSANCE

Effect of computer techniques with assistance of the couch in learning some skills of volleyball for hearing impaired trainees

Naheda Abd Zaid; Luma Sameer Alshikhly; Sawsan J. Kadhum
Faculty of Physical Education/ University of Babylon
Faculty of Physical Education for Girls/ University of Baghdad
Faculty of Physical Education/ University of Diyalah
dr.nahida@yahoo.com

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ABSTRACT

This research aimed to knowing the effect of using computer techniques on those who are hearing impaired in learning skills of volleyball , the researchers chose the sample of the research from the Institution of Hearing Impaired and Deaf in Babylon province , the sample is (10) pupils from the community of research which is (26) pupil , therefore the ratio will be (38.46%) , also choosing the appropriate test of some skills of volleyball (Passing from above the head forward and reception from the opponent's serving and forearm passing from below) , in addition to that , the researchers did a small preliminary experiment to a (6) pupils out of the main sample of the research with using the assistant tools, then proceeding the before tests on the experimental group and then applying items of computer technique by the assistance of the couch through the educational units are (12) units based on three units per week, the time of the unit was (40) minutes , after the end of all units, the after procedure tests were done. Conclusion of current study included using the computer techniques with the assistance of the couch helps in individuals of the sample to understanding the detailed parts of the skills and ability of the computer in defragment of the skill and showing it slowly and many recurrent gave the trainee (deaf and dumb) a bigger chance for knowing the skill.

Keywords: Computer technique, methods of learning, skills of volleyball, hearing impaired and deaf pupils.

1. Introduction

The modern technology have offered a vast support to methods of learning of different sciences with numerous kinds of devices and means that help both of trainee and instructor by activation the educational process and acceleration it, also they help the instructor to get rid of classic methods of learning and ensure time and effort. One of these modern styles is the computer that the instructor uses it in the educational process of different fields notably in the physical side for different ages especially with those who are hearing impaired and deaf to help them to be active and interact with people and not to feel that they are marginalized. For those who have problems in their hearing abilities they find difficulties in learning due to

the lack of hearing therefore they need special care and different curriculum from those who are intact (Raghad., 2010).

Physical education is one of the important fields on the development of people with special needs and instill the values and concepts of behavioral and rehabilitation them physically, psychologically and professionally and to help them reconnect with society and the world again until the individual not be disabled and non-functioning energy untapped (Naeem and Jamal., 2011).

The hearing disabilities are one of the various disabilities that need to be concerned in the physical education through specific curriculums (Noor., 2012), hearing disabled needs as the others in that learn and evolve and be trained and invention. Moreover, physical education curriculums for this important category does not differ from the healthy pupils curriculums, but the hearing loss that prevents contact other individuals is impaired in the process of motor learning (Mazin., 2010). Given, students have a weakness in body mechanics so it must be given to methods of physical activity and skill and work, these approaches result in on the development of motor skills, social and psychological for it is very likely to infect those students in the weakness in their physical abilities and skills compared to their healthy peers as a result of avoid them to participate in some sports activities (Salim., 2009).

Volleyball is one of these popular games that is played in all times and different ages and need more learning and practicing. It has different skills and should be known and practiced by all its technical and scientific sides, that is why it is so important to use computer programs in learning these skills to be able to show most accurate details, using such technique doesn't freeze the role of the instructor but help him to find a status of mingling between him and trainees by adding thrill and entertainment.

As the researchers are teacher have worked for long period in field of teaching, they found that using the classic methods of learning is no longer a feasible process, therefore using computer techniques is very important because that provide more accurate details and many recurrent pictures to be understood and realized by the trainees of the hearing impaired and deaf pupils. The study aimed to knowing the effect of computer technique by the assistance of the couch in learning some skills of volleyball for those who are hearing impaired. Our study aim to knowing the effect of using computer techniques on those who are hearing impaired in learning skills of volleyball.

2. Methodology

The researchers have used the experimental method of a single experimental group.

2.1 Participants

The researchers chose the sample of the research represented by the hearing impaired pupils in the sixth class of age (11-12) years are (26) pupils, the sample of the research was chosen randomly from this research society of (10) pupils, therefore the ratio was (38.46 %).

The researchers used the statistical means represented by means, standard deviation, skewness coefficient for the morphology measurements to know the descriptions of the sample, as showed in the tab below:

Table (1) Shows specifications of the sample in the variables (Age, length, weight)

Variables	Arithmetic means	Standard Deviation	Loom	Torsion Coefficient
Age	12.32	0.76	12	0.42
Length	156.24	1.49	155	0.83
Weight	45.09	0.97	44	1.12

Table (1) shows values of skewness coefficient are less than (±2) so that refer to homogeneous of the sample with these variables.

2.2 Tests of the stud

The researcher have used rationing tests based on scientific bases and were used by other previous researchers (Nagham., 2004), they are:

1- Technical performance of passing from above the head.
2- Technical performance to receive the serving.
3- Technical performance of the confronting serving from below.

2.3 The main procedure of the study

2.3.1 Pre-tests

Pre-tests have been done for the individuals of the sample after implementing an educational unit for the skills of research, they were discussed with pictures and paintings for better explanation and showing a live pattern for these skills, then these trainees implemented these applications after giving them the times of recurrent ability needed in this skill, each unit lasts for (45) minutes and at the end of each units the after-procedure tests were implemented to know the level of technical performance.

2.3.2 Educational method

The researchers have used computer technique with the assistance of the couch in learning the skills (passing from above the head forward, receiving the serving and confronting serving from below), this method lasts for (4) weeks based on three units per week, so the total of the units are (12), time of each is (40) minutes , the researcher have applied the items of the educational method according the style of using computer by the assistance of a couch by giving the feed-back for the experimental group of the research via computer programs[**], that means the pupil can correct his performance according to the showed sample in the computer with notices by the couch for each pupil, to correct his performance and reach the ideal performance. Then the player get photo during playing by cam after every three units , therefore the times of picturing is (4) times and the show is played before each educational unit, means after the preliminary side of the unit which is (10) minutes, the students (the experimental group) go to the class where tools and devices are exist in it, after the end of the specified period of the educational part which is (10) minutes, the pupils go to the court to start practicing the exercises related to the skills need to be learned for (15) minutes. Then starting performing the final part of the educational unit which is (5) minutes.

2.3.3 Post-tests

After the end of the educational method period which includes (12) unit, after-procedure tests have been implemented for each skill and in the same circumstances of proceeding the before-procedure tests.

2.4 Statistical analysis

The researchers have relied on these statistical means. Means- Standard deviation – Percentage- (t) test for the joined samples.

3. Results and discussion

Table (2) shows that the counted values of (T) are higher than tabulated values of (T) that are (2.26) under evidence level of (0.05) with a free degree of (9) and that means there are significant differences between the before and after tests for the cognitive learning tests of the skills of volleyball of the experimental group.

Table (2) shows results of (T) test between before and after test for the test of technical performance for the skills of the experimental group.

Tests	Before-procedure test		After-procedure test		Value of (t)	Type of evidence
	c -	a	c -	A		
Technical performance of passing from above forward/Degree	3.15	0.75	6.28	0.56	4.07	Significant
Technical performance ofserving from standing /degree	3.14	0.91	6.73	0.68	3.24	Significant
Technical performance of the confronting serving from below /degree	3.53	0.87	7.02	0.59	4.33	Significant

Table (3) shows that the difference coefficient in the after-procedure tests was less than their values in before-procedure tests for the experimental groups that indicted the homogenous among its individuals consequently developing their performance in the skills of the research.

Table (3) shows results of difference coefficient for the tests of technical performance of the after and before skills of the experimental group .

Tests	Before procedure test			After procedure test		
	c -	a	K%	c -	a	K%
Technical performance of passing from above forward/Degree	3.15	0.75		6.28	0.56	
Technical performance of serving from standing /degree	3.14	0.91		6.73	0.68	
Technical performance of the confronting serving from below /degree	3.53	0.87		7.02	0.59	

Through what has been shown in table (2), the results showed that there are significant differences between pre and post procedure tests of the skills (passing from above the head, receiving the serving and confronting serving from below) for the behalf of the post-tests, in addition to that table (3) showed homogenous among individuals in the experimental group and then development in its performance, the researchers attributed that to using computer in learning which eases the process of understanding via the gradual showing of pictures and movement an according the level of conception of each individual, in addition to dividing the movement (Adil., 2005), that is what mentioned in previous references, plus the computer allow to trainees best understanding of the nature of the movement through unique detailed

showing to the skill up to his ability of realizing, all that help the individual to achieve best results with existence of the couch who watch and explain all details and specifying points of weakness or success by relying on computer technique. Feedback process was sufficient to help trainees in training by combining between the thrilling reason and dynamic response and encouraging the appropriate responses" (Abdulkareem., 1988). Therefore its very matching with those who need special care of the hearing impaired individuals because "hearing impaired children have ability for learning and training likewise with those who are intact children" (Savelsbergh *et al*., 1991). Some other studies approve with findings of our study, for example, study of Aussama (2009) and Mohamad (2005), they showed that physical education is very important on improve patients with hearing disabilities and increasing of society communication.

4. Conclusion

Study concluded that using computer techniques with the assistance of the couch help the individuals of the sample in understanding the detailed parts and skills and conceive them better. Moreover, ability of computer in fragmenting the skill and showed it slowly and numerous recurrent, gave the deaf pupils best chance to understand and realize the skill. In addition, showed the technical performance via computer participate in all that participate in developing abilities of the deaf pupils to practice the technical performance of volleyball skills included in our research. The educational units by using computer ensure ability of imaging the technical performance for volleyball skills.

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