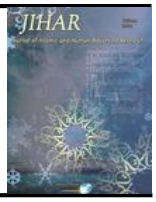

Effect of the educational method by using computer on developing the cognitive respect and learning some skills of handball for female students

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ABSTRACT

Using the modern scientific techniques in education is considered one of the educational methods that has direct effect on learning , that it adds a lot to the learning through its huge abilities have high efficiency in offering the best in addition to ensuring the effort and time plus they are considered an entertainment and thrill means, this research aimed to clarifying the effect of using educational curriculum by using the computer on developing the cognitive side and learning some skills of handball for female students, the researchers assume that there are differences have significant evidences between the after and before test for the both groups experimental and controlling in learning some skills in handball for the behalf of dimensionality, the research was proceeded on the sample of the female students in the college of physical education of Karbala University of the year (2013-2014) who are (18) students of the genuine society research which is (38) student based on (9) for the experimental group and (9) for the controlling group, also choosing some appropriate tests for some of the handball's skill (sending and targeting), the researchers had practiced a preliminary experiment on a (10) student and using some tools, means and devices in the research and doing after that the before –tests on the experimental group and after that implementing the items of the educational program on the students as (2) educational unites per week, the time of each unit is (90) minutes, the after-test were proceeded after completing the educational curriculum for all skills, after that treating the results with appropriate statistical means, and then reached to the following conclusions: Using computer showed better conception of the detailed parts of the skills (technical performance) than not using it and using the computer participate in enrichment of the cognitive side for the individuals of the experimental group through the frequent show of the information of the skills. In addition, using the computer helps in achieving better results in learning the skills of sending and targeting plus saving time and effort for the instructor.

Keywords: Handball, computer, developing the skills, method of learning**.**

1. Introduction

The fast developments our modern world notably sport has witnessed wasn't by chance but due to inserting the computer programs in the field of learning, planning and continuous training (Jassim., 2010). Achieving these successes required following the right means and methods to achieve the targets that have been planned for previously (Loma and Sausan., 2009), the dynamic learning has a big chance to be developed like other sciences also this science is correlated strongly with other fields of science. Using the computer helps in achieving better results in learning the skills of sending and targeting plus saving time and effort for the instructor (Hamdan., 2006). Handball is a common social game and have huge people loved that game and need more information get developed by using computer programs that every individual can get whatever information he need. Therefor the learning has become very necessary due to the targets done by it. The cognitive learning is very important in field of studying and research and its one of the important learning means that has direct and crucial influence on learning because the trainee can get whatever information he need about the game and skill in addition to that this game participate in reaching the trainee to best levels of skillful performance (Nahida., 2011).

Through the wide knowledge of the researchers, the noticed that most of the instructors have depended upon the classic methods of learning like using the method of live pattern , therefore the researchers has decided to wade an experiment of inserting computer in the process of learning skills of handball (sending and targeting) after preparing learning curriculum include learning the technical performance for the studied skills in addition to the cognitive side of handball in general and skills studied in this research especially by using computer. The study aimed to knowing the effect of a learning curriculum by using computer in developing the cognitive side and some skills of handball for female students.

2. Methodology

The researchers used the experimental method of a unique group.

2.1 Samples

The sample included female students in the college of physical education of Karbala University of the year (2013-2014) who are (18) students of the genuine society research which is (38) student after excluding the injured, delayed and professional students to be (9) for the experimental group and (9) for the controlling group. The researchers have practiced an equivalent for the two groups of the research in the after-tests in the research.

Table (1) Shows value of (t) counted for the two groups in the after-test for the scale of the cognitional learning and technical performance of the skills.

Statistical features / Tests	Controlling group		Experimental group		Value of (t)	Type of evidence
	c	a	c	A		
Cognitional scale/ degree	28.02	3.19	30.54	3.22	1.82	Insignificant

Technical performance of sending from a level	4.07	0.83	3.85	0.87	1.54	Insignificant
Technical performance of targeting	3.08	0.74	3.17	0.69	1.36	Insignificant

Value of (t)= (2.10) at evidence level of (0.05) under freedom degree(16).

2.2 Measurements

2.2.1 Scale of cognitive learning

The researchers used the cognitive learning scale that included (51) items, final mark of the scale was (80) degree, notice that this scale is rationing (Hamid., 2006).

2.2.1 Study tests

They depend upon tests of evaluating the technical performance for the skills of the research that used by two other previous researchers (Khalidah., 2011).

2.3 Procedures of the Study

2.3.1 Pre-Tests

On 6/10/2013 before tests were done for the sample after implementing one primary defining unit for some skills (sending and targeting) of handball, then the individuals practiced applying this skill after giving them the place recurrence to perform these skills. After completing each unit that lasted for (90) minutes, pre-tests were done to evaluate the technical performance for the skills.

2.3.2 Educational Method

The researchers have used two educational methods are the followed educational method implemented by the controlling group and the second educational method implemented by the experimental group by using computer in learning the two skills of (sending and targeting) , the researchers have applied items of the educational method that lasted the period of the method is (6) weeks, learning each skill lasted for (3) weeks, number of educational units were two units per week based on (90) minutes for each unit.

2.3.3 Post-tests

After completing period of the educational method which is (12) unit, proceeding the after tests for each skill and in the same circumstances of pre-tests.

2.4 Statistical analysis

The researchers relies on the following statistical instruments:
Means – Standard deviation – Percentage – (T) test for the correlated samples- difference coefficient.

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 (8) and that means there are

significant differences between the before and after test for the cognitive learning tests of the skills of handball of the controlling group.

Table (2) shows results of (T) test between pre and post-tests for the test of cognitive learning and technical performance for the skills of the controlling group.

Tests	Pre-test		Post- test		Value of (t)	Type of evidence
	c -	a	c -	A		
Cognitional learning/ degree	28.02	3.19	39.84	2.91	3.54	Significant
Technical performance of whip sending from a shoulder level/degree	4.07	0.83	5.92	0.72	3.11	Significant
Technical performance of targeting from high jumping /degree	3.08	0.74	7.16	1.44	3.30	Significant

Tab (3) 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 (8) and that means there are significant differences between the before and after test for the tests of technical learning and performance of the skills of handball of the controlling group.

Table (3) shows results of (T) test between pre and post-tests for the test of cognitive learning and technical performance for the skills of the experimenting group.

Tests	Pre-test		Post- test		Value of (t)	Type of evidence
	c -	a	c -	A		
Cognitional learning/ degree	30.54	3.22	45.49	1.75	4.85	Significant
Technical performance of whip sending from a shoulder level/degree	3.85	0.87	7.85	0.56	3.45	Significant
Technical performance of targeting from high jumping /degree	3.17	0.69	8.42	0.72	4.64	Significant

Table (4) shows that the counted values of (T) are higher than tabulated values of (T) that are (2.10) under evidence level of (0.05) with a free degree of (8) and that means there are significant differences between the two groups experimental and controlling for tests of technical learning and performance of the skills of handball on the behalf of the experimental group.

Table (4) shows results of (T) test between post-tests for the test of cognitive learning and technical performance for the skills of the both experimenting and controlling group.

Tests	Post-test		Post- test		Value of (t)	Type of evidence
	c -	a	c -	A		
Cognitional learning/ degree	39.84	2.91	45.49	1.75	3.51	Significant
Technical performance of whip sending from a shoulder level/degree	5.92	0.72	7.85	0.56	5.97	Significant
Technical performance of targeting from high jumping /degree	7.16	0.64	8.42	0.72	3.81	Significant

Table (5) shows that the counted values of (T) are higher than tabulated values of (T) that are (2.10) under evidence level of (0.05) with a free degree of (8) and that means that the experimental group has developed better than controlling group.

Table (5) shows results of difference coefficient for the tests of technical performance of the after and before skills of the two groups controlling and experimenting.

Tests	Controlling			Experimental		
	c -	a	K%	c -	a	K%
Cognitional learning/ degree	39.84	2.91	7.49	45.49	1.75	3.85
Technical performance of whip sending from a shoulder level/degree	5.92	0.72	12.16	7.85	0.56	7.13
Technical performance of targeting from high jumping /degree	7.16	1.44	20.11	8.42	0.72	8.55

Through what has been showed in tables we noticed that there were a vast amount of learning for both of the two groups controlling and experimenting and a significant progress for the experimental one due to the use of computer programs in learning the skills. The researchers have attributed these results due to using computer in learning by easing process of realizing, conceiving and understanding the skill through recurrent slowly showing of pictures for skillful players practicing movements of the game and watching carefully the technique of the skills. All these factors participated in learning the individuals of the sample quickly and then improving the performance of trainees by more entertainment and thrill in addition to save time and effort offered by the instructor (Charles., 1972).

Many references confirmed that repeated exercises give trainees best learning of skills (Adil and Ali., 2000). In addition to ensuring all required needs and circumstances and using modern techniques provide the learning a better chance of having positive effect on the developing of learning for the experimental group the physical skills (Ammar., 2013).

When we noticed the results on table (5) we find the progress of the experimental group above the controlling one due to the repeating of detailed picture enrich the memory of trainees and keep in mind all what they have learned. Kadem (2011) showed that using a computer results in increasing the learning specific when using analyzing of performance of skills. Moreover, Ahmad (2005) investigated the effects of using writing states by computer on learning some of handball skills, he appeared that information giving by computer have positive effect on learning. These results approve our findings that computer in very important tool in education to improve skills of handball.

4. Conclusions

Using computer showed better conception of the detailed parts of the skills (technical performance) than not using it and using the computer participate in enrichment of the cognitive side for the individuals of the experimental group through the frequent show of the information of the skills. In addition, using the computer helps in achieving better results in learning the skills of sending and targeting plus saving time and effort for the instructor.

References

Adil F. Ali., (2009). Effect of Using Data Base in program of learning by symbolic pattern in learning the assaulting skills in fencing . Ph.D thesis in Baghdad University, College of Physical Education, 95-99.

Ahmad M., (2005). Effect of computer display on develop of handball skills, *Baghdad Jour of Spor*, 4:267-279.

Ammar, H., (2013). Effect of computer using in improving learning skills in volleyball players, *Jour. Of Baby*, 2:197-212.

Charles A. Dyer., (1972). Preparing for computer assisted instruction, Educational technology publications Inc. New Jersey, 149.

Hamdan, F., (2006). *Computer uses in physical education*, Jordan, Al hashmy for printing, 1:167-197.

Hamid Mustafa Hamad., (2006). Using The Educational Group and Self Reviewing in teaching some skills of Handball and Their Results on Education , Ph.D thesis, Mousel University, College of Physical Education, 99-112.

Jassim, M., (2010). *Recent sport training*, Iraq, Baghdad for printing, 2:123-146.

Kadem, K. (2011). Analyzing of performance of shot in handball, Karballa Jour, (3) 2:234-245.

Khalidah Abed Zaid., (2011). Effect of Comprehensive Educational Design and Learning by Playing in Developing Cognitive Skills and Striking Skills for Students in Handball, Ph.D thesis , Babylon University, College of Physical Education, 71-75.

Loma and Sausan., (2009). *Methods of training between past and tody*, Egypt, Santic Lims for printing, 213-229.

Nahida, A.Z. (2011). *Methods of learning*, Iraq, Najaf for printing, 145-178.