THE EFFECT OF VIRTUAL REALITY IN USING NINTENDO WII TECHNOLOGY IN LEARNING TENNIS SERVE FOR BEGINNERS STUDENTS

Haydar Subhi Ibrahem

Ph.D. Physical Education College, Diyala University

Abstract

Education one of the main topic that develop society and improve them as its impacts positively and completely in creating a new generation depending on scientific and new predisposition, the modern learning methods in the last years change to be more suitable with students interesting and participate them in learning strategy instead of make them passive listener. As we see the world moving, forward and apply the new technology in all parts of life, and simulation one of the new methods which is using in different fields to transferring knowledge from situation to another, saving time and cost and one of simulation type its Nintendo wii.

There are many sports like Tennis adopt the new invented to improving performance which can`t be achieved without changing the old style to optimized with new requirements for this reasons and other the study try to engage virtual reality via Nintendo wii to learn the student serve skill in tennis. The study depend experimental approach, with two groups (control and experimental group) to comprise between them and the rustle refer to Learning through Wii device provides and support needs of students and present the movement in clear and interested way that impact in learning serve of tennis for experimental group and the Learning by familiar style (Explanation and model), and all what the lecturer lead to positive impact in learning serve skill of tennis for the control group.

KEYWORDS: Nintendo Wii technology. Tennis. Common teaching.

1. INTRODUCTION

As we see the world moving forward and apply the new technology in all parts of life, and simulation one of the new methods which using in different fields to transferring knowledge from situation to another, saving time and cost, as well as support the real performance wanted to be learnt. Fisher (2002) refers that the researches worked on the simulation devices for teaching driving cars and airplanes proved its efficiency to teach and settle the suitable performance.

Study Problem: The tennis curriculums in the college depend on one style (Explanation and model) it has several positives, and mostly achieves the target of the teaching process, but to increasing the efficiency of learning, saving time and efforts, as well as getting benefit from modern Innovations, the study suggested using Nintendo Wii technology to teach serve skill during class time.

Study Aims:

1 Recognizing the impact of using Nintendo Wii technology and the common teaching style in learning student's tennis serve skill.

2- Recognizing the best effective teaching style in learning student's tennis serve skill.

Simulation: Simulation is the process of imitating a state, exact situation, or real act, it is an extension of virtual reality. Majdi Salah-2008 mentions that the virtual teaching in any form is only a type of simulation to the exact reality, since the simulation is one of the effected teaching manners, Arabic encyclopedia of the educational terms and technology of teaching, the simulation also defined as" an act, model, or type of one manner in reality, in which every participant has a particular role, hence he faces certain circumstances, he has to produce solutions to his problems, and make suitable decisions.

Nintendo Wii: The device designers have focused on imitating the natural human gestures in dealing with the device, and the player is acting according to his style in playing, since in the old manner, pressing the buttons is similar among all players, and the difference would be only in playing strategy, and speed of pressing buttons, but by the new system, the remote stick imitates the way a person uses his hands to move.

2. MATERIAL AND METHODS

According to the nature of the study we used the experimental research, the study simple 24 students (12) control group and (12) students experimental group. From the second stage chosen randomly after taking out the failures, postponed students, and Tennis, badminton, and Ping-Pong players, to avoid learning impact transition.

We used four Nintendo Wii devices, four Samsung TV, 52 inch. one laptop, Video and digital camera, tennis court, rockets and balls and depend ITF On Court Assessment, to measure tennis skills to all International federations, the ITN assessment are simple

57

and suitable for all players over the world, whatever their level was, especially for beginners, players who didn`t participate in any championship and competition periodically, in order to be an effective tool in the assessment of the players performance.

After preparation and planning for the steps to use Wii in classes, an exploratory experiment has been done on a random sample similar to that of the study, out of the original sample to make sure that all requires are with perfecta way.

3. RESULTS AND DISCUSSION

Table 1: Pretest and posttest for control group in the serve test

Skills	pretest		posttest		T-Critical	T	differences
	M	**S.D**	**M**	**S.D**			
Serve	8.5	0.52	10	0.60	7.7	2.20	Significant

The table (1) showing the differences of the Pretest and Posttest for the control group, the posttest highest than pretest according to lecturer method (Explanation and model) and to the lessons exercises and repetition of the performance and mistakes correcting, learning environment, motivation, direct monitoring from the lecturer, deliver the needed information and feedback which is lead to positive change in the posttest, that's what mentioned by (Abdulkarem Alsamrai and Others:2007.55) that the method of Explanation and model is very important factor in the learning presses because it linked the previous skill with the new skills and helps to connect the dynamic visualization with information's that explained earlier that increase learning.

Table 2: Pretest and posttest for experimental group in the serve test

Skills	pretest		posttest		T-Critical	T	differences
	M	**S.D**	**M**	**S.D**			
Serve	8.33	0.77	11.16	0.71	9.53	2.20	Significant

The table (2) showing the differences of the Pretest and Posttest for the experimental group, the posttest highest than pretest according to efficiency of learning by simulation through the (Wii) device in learning the serving skill to the experimental group, we refers these differences to the new educational environment that full students interested and needs to Keep up with the Innovations spicily they never tested like this experimented before.

The simulation through Wii device is a unique experience by testing true performance under controlled circumstances which gives the students the ability to try many new dynamic forms without worry of performance mistakes or embarrasses from colleagues or lecturer or perform abstention, as (Schmidt) mentioned 1982 the simulation panels have an effective range in the exercises and they are the main reason to make use of exercise dynamic form.

Table 3: posttest for control and experimental groups in the serve test

Skills	control		experimental		T-Critical	T.Stat	differences
	M	**S.D**	**M**	**S.D**			
Serve	10	0.60	11.16	0.71	3.52	2.07	Significant

The table (3) showing the differences of the Posttest between control and experimental groups, the posttest for experimental group highest than posttest for control group, we refers success to the learning through simulation by the Wii device which represented the specific exercises by competitive small games helped to increase the accuracy of performance in enjoyment way that what we touched from experimental students group they insists to continue playing even after the lesson time is over, and mohammed Hassan Alawi 1992 refer that the educational tools if they used in a right way it will be an effective to increase the activity, energy, self-confidence.

And the high sense of Wii mote stick develop the stability of learning, every movement in the arm angle changes the bath of the ball that allows the students to correct modify the serve to reach the right perform, and the size of screen and high quality of it that made connect between what he does and what he sees which leads to qualifications of harmonization between the hand and the eyes and the dynamic control , and this what matches with the study of Douglas gentile, 2005 on a group of surgeon doctors improved their accurate performance during surgery by using the electronic simulation.

And the students has the option of repeating the excesses which is consideration individual differences between students and saving time as the real playing intervened losing time when they be busy in moving in the court and bringing back the out balls in addition to other stoppage.

learning by simulation bringing the suitable responses that happened during the real playing because of the similarity between playing through Wii and playing in real in the dynamic performance because its imitate what is in real playing by the characteristic of the 3D represented and the sound effects like hitting the ball ,sound of the audience, visual effects, vibration effect in the control stick, and that what(Dennis:1989,30) refer to that presenting the skills in a visual form surpass any other phonetic explaining about the other things that connected to the skill, and the good designing of the educational curriculum makes the trends of the students more positive1.

4. CONCLUSION

1. Learning through Wii device provides and support needs of students and present the movement in clear and interested way that impact in learning serve of tennis for experimental group.
2. Learning by familiar style (Explanation and model), and all what the lecturer lead to positive impact in learning serve skill of tennis for the control group.
3. Superiority experimental group (Wii) device on control group (Explanation and model) because it provide a big chances to practicing the serve skill with new and interested way.

4. RECOMMENDATIONS

1- Using Wii device in learning tennis serve skill and try it with other skills and games.

2- Using modern technology that increases students interesting of learning.

5. REFERENCES

1. Abdulkarem Alsamrai and Others; Competencies of sport teaching methods, Basra,2007.
2. Dennis W. Pette; Visual Design for projected still Material in Educational technology , Jon 1990.
3. Dennis W .Pette; Visual Design for projected still Material in Educational technology , Jon , 1989
4. Fisher,D.L,Laurie, Glaser,usa of fixed – based driving simulator to evaluate the effects of experience,2002.
5. Majid S. Taha; virtual education method-Elements, implementation, Cairo, 2008
6. schmidt,a.r. motor control and learning, il.human kinetics.1990.
7. http://www.hi-eg.com/
8. http://www.itftennis.com/home.aspx
9.   http://www.laparoscopyhospital.com/game.htm

Address for correspondence

 Authors: Ph.D. **Haydar Subhi Ibrahem .** Physical Education College, Diyala University –Iraq
Email: hayder.subhi@gmail.com