Teaching Football Laws through Computer Assisted Instructions - An Experimental Study

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Abstract

The purpose of the study was to find out the effect of Computer Assisted Instruction on teaching laws of Football for undergraduate physical education students. To achieve the above purpose forty undergraduate physical education students were selected, age ranges between 18 to 20years. Pre test were conducted on Football laws and based on the scores they were divided in to two equal groups, namely computer assisted teaching group and traditional method of teaching group. The experimental group was taught through computer assisted instruction programme on Football laws for duration of one hour per day for a period of 30 working days. The other group was taught Football laws using the traditional teaching method. After the experimental period, both the groups were tested on Football laws. The test consists of 100 multiple choice questions. The obtained't' ratio value of 20.61 was greater than the required table value of 2.0246. It was concluded that there was a significant difference between computer assisted instruction group and traditional method of teaching, the computer assisted instruction group and traditional method steaching, the computer assisted instruction group and traditional method steaching.

Key words: Football laws, Computer assisted instructions.

Introduction

The age of computer is upon us. Children in kindergarten are becoming computer literate. In some schools computers are a necessary tool for course work. Computer is an electronic device that accepts digital information and processes in a predefined fashion, according to a set of instructions provided to a set or sequence of instructions provided to it and produces the desired binary output. (Computer Dictionary, 2000)

Computer can be used to enhance teaching instruction. Computer managed learning can free the teacher to spend more time with individual students by facilitating instructional management (testing, record keeping, grading, data analysis, report writing) and can help the teacher to individualize the instruction by directing student learning through instructional games, simulations, drill and practice, testing and remediation. (Anne L. Rothstein 1985)

Computer technology has become an integral part of Physical Education, yet there have been few studies exploring the use of multimedia technology in the instruction of Physical Education. The future physical education programme aims at making students use the computer both as productive tool and as a means of creativity and self expression. The curriculum encompasses technological skills based on themes that are current and meaningful. The program helps children to build a solid foundation of fundamental learning skills and prepares them for the fast changing technology of today with a futuristic perspective. Smart class technology enabled programme ensures effective and enriching learning experiences. The regularly updated inputs and a wide range of video clippings are accessed from knowledge center. Difficult and abstract concepts too become clear to the students when viewed on computer screens, plasma TV screens.

Computer assisted instructions making appeal to different senses instead of one as in the traditional method. Interactive Multimedia (IMM) is a relatively new educational innovation assisting teaching in a grater extend.

Review of Related Literature

Elayaraja and Ravindran (2008) conducted a study on "Effect of Computer Assisted Instruction on Teaching Basic Anatomy". The purpose of the study was to investigate the effect of Computer Assisted Instruction on teaching basic anatomy. Randomly selected 40 subjects were divided in to two equal groups, each namely the traditional method of teaching group and multimedia based modular of teaching group (teaching basic anatomy). The experimental group was taught through computer assisted instruction programme on basic anatomy and other group was taught anatomy using the traditional method. Pre and post test were conducted and data were analysed using test. It was concluded that there was a significant difference between computer assisted instruction group and teacher instructed group in teaching anatomy and the computer assisted instruction have scored better marks than the teacher instructed group.

Barlow and Baylis (1983) developed computer assisted programme for teaching in health and nutrition, lifetime sports, anatomy and physiology and sports science. Programs used for teaching high school students. Perhaps the concepts introduced in the Basic Stuff Series recommended by National Association for Sports and Physical Education in the year 1981. Physical participation in sports for learning and for the development of fitness is critical but cognitive learning and understandings are an integral part of physical education.

Purpose of the Study

The purpose of the present study was to find out the effect of Computer Assisted Instruction on teaching Football laws for undergraduate physical education students.

Methodology

In this study forty students studying bachelor's degree in the Department of Physical Education Queen Mary's college were selected by random (N=40). The age of the subjects ranged from 18 to 20 years. Pre test were conducted on Football laws and based on the scores they were divided in to two equal groups (n=20), namely computer assisted teaching group and traditional method of teaching group. Computer experts were consulted for this purpose. With help of the experts the investigator designed Computer Assisted Instruction Module for teaching Laws of Football for under graduate students in physical education. In

Journal of Physical Education Sports and Allied Disciplines

R. Subramanian and S. Thirumalaikumar

this module the teacher is assisted with animated pictures, illustrations and videos of the game situation which is explaining and interpreting laws. At the end of each class the student were given computer assisted exercise schedules also. The experimental group was taught through computer assisted instruction programme on Football laws for duration of one hour per day for a period of 30 working days. The other group was taught Football laws using the traditional teaching method. After the experimental period, both the groups were tested on Football laws. The test consists of 100 multiple choice questions. The collected data were analyzed using the independent't' test (Anne L. Rothstein, 1985). 0.05 level of confidence was fixed to test the significance.

Table – I Mean Standard Deviation and "t" ratio of Computer Assisted Instruction Group and Traditional Teacher Instruction Group in Teaching Laws of Football

Groups	N	Mean	SD	Standard error of the mean	Standard error of difference between means	T Ratio
Computer Assisted Instruction Group	20	80.2	2.9	0.65	0.91	30 98 *
Traditional Teacher Instruction Group	20	52.00	2.8	0.63		

*Significant at 0.05 level of confidence, Table value required for df38 is 2.024

Results and Discussion

The results show that the mean values of computer assisted instruction(80.2) was greater than the traditional teacher instruction groups(52.00) The obtained 't' ratio value of 30.98 was greater than the required table value of 2.024 for significance at 0.05 level of confidence with degrees of freedom 38. This clearly indicates that the Computer Assisted Instruction was more effective in teaching Football laws for the under graduate students. The finding of the study is in line with results of *Elayaraja* and Ravindran (2008) and Barlow and Baylis (1983).

Conclusions

The results of the study showed that there was a significant improvement in the test scores on Football laws due to computer assisted instruction.

Authors Guide (2000), Computer Dictionary, Delhi: Kalra Publication, 48.

- Anne. L. Rothstein, (1985), *Research Design and Statistics for Physical Education*, London: Prentice-Hall, 111,112 & 279.
- Elayaraja & Ravindran, (2008), Effect of computer assisted instruction on teaching basic anatomy, *Journal of Physical Education and Exercise Sciences*, 3(2), 47.

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