



ISSN: 2456-0057

IJPNPE 2019; 4(1): 2684-2686

© 2019 IJPNPE

www.journalofsports.com

Received: 02-04-2019

Accepted: 13-05-2019

Dr. Gopal Singh Dasta

Associate Professor, Govt.
Degree College, Sanjauli, Shimla,
Himachal Pradesh, India

Rekha Devi

Assistance Professor, Noida
Collage of Physical Education,
G.B Nagar, Uttar Pradesh, India

Effectiveness of ICT based teaching learning on the achievement of physical education student

Dr. Gopal Singh Dasta and Rekha Devi

Abstract

A study of effectiveness of ICT based teaching learning on the achievement of physical education student Pre-test- the test that is administered to subjects before the independent variable is applied is called pre-test. It is represented by symbol T_1 . In the present study, investigator prepared a pretest for measuring the achievements level of students studying in class IX. Test was developed to evaluate student's previous knowledge, understanding and application concepts already taught in physical education. From the above table we can see that calculated t-value come out to be 6.318 which is far above the table t-value of 2.09 at 0.05 levels of significance and table t-value of 2.86 at 0.01 levels of significance. In the light of above results the set hypothesis is rejected. Thus we can say that there is significant difference in student's achievements in science while ICT in teaching through computer and traditional method.

Keywords: Effectiveness, ICT-based teaching, learning

Introduction

Traditional class room teaching is the act of imparting instructions to the learners in a class room situation; this is not acceptable to the modern educators. According to modern concept, teaching is an intimate contact between a more mature personality and a less mature one which is designed to further the education of the learner. According to Gage, "Teaching is a form of interpersonal influence aimed at changing the behavior potential of another person."

Now a days computer based teaching is becoming a useful tool for the teacher in instruction process, it is not to exclude teacher from the classroom, and it means relief from the mechanical aspects teachers' work. Teacher need no longer be 'talking books' or 'paper correcting automations'. Thus computer based teaching stands for the type of teaching aided with computer as a machine. This means computer supplements the presentation of Teaching-Learning process. The age of techno-scientific revolution, quality of teaching demands top priority. The traditional methods of teaching like lecture-method will have to be supplemented with the methods that will lay stress on self-study, online learning, web-based learning, video conferences, computer assisted instructions (CAI) and computer managed instruction (CMI). Learning effectiveness of teacher-centered approaches has been questioned because of lack of interaction. But in computer-based teaching, the teacher has a chance to use new tools which will enhance his individual satisfaction and increase efficiency. Lowe (2001) stated that computer based education (CBE) should be used to enhance conventional teaching methods. Computer provides a new form of presentation and allow for some learning without the presence of instructor; however the alone may not be as effective as the computer with an instructor,

Research methodology

The Research Design present study is randomized groups pre-test and post-test design. Sample in the present study, forty students of class IX of Blue Diamond Public School, Dadri were taken randomly. Thus the sampling technique which was adopted by researcher was sample random sampling. To measure the achievement level of students, investigator prepared achievement test herself for pre-test and post test scores. Pre-test- the test that is administered to subjects before the independent variable is applied is called pre-test. It is represented by symbol T_1 . In the present study, investigator prepared a pretest for measuring the achievements

Corresponding Author:

Dr. Gopal Singh Dasta

Associate Professor, Govt.
Degree College, Sanjauli, Shimla,
Himachal Pradesh, India

level of students studying in class IX. Test was developed to evaluate student's previous knowledge, understanding and application concepts already taught in physical education. Test consisted of five type question. In all of following types.

- Multiple choice questions.
- Fill in the blanks.
- True and false.
- Matching the following.
- Short answer question.

Duration of test was 25 minutes and maximum marks were 35 marks.

Post-test- the test that is administered to subjects after the independent variable is applied is called pre-test. It is representing by symbol T_2 . In present study, investigator developed a post-test in physical education on similar lines of pre-test.

- Multiple choice questions.
- Fill in the blanks.
- True and false.
- Matching the following.
- Short answer question.

Duration of test was 25 minutes and maximum marks were 35 marks.

Table 1: I this part of analysis the means and standard deviation of experimental and control group on the pre-test (T_1) were computed and shown

Group	Number of students	Degree of freedom	Mean	Stander deviation	t-value	Level of significance 0.05/0.01
Experimental	20	19	15.15	2.631	0	Not significant
Control	20	19	15.15	2.631		

The difference between means of per test scores of the students of experimental & control group on achievement in physical education. It is observed from the table that mean of both the groups comes out to be same. Indicates that mental/IQ Level of both the group are same. It also observed that t-value comes out to be zero because both mean and standard deviation of the two groups comes out to be the

Procedure

Phase I earlier academic highest of students in science subject was used to classify the student in two group. Phase II developed by investigator was administered to all the students of control group. Then they were given lecture on 'Body Posture' through power point. On the next day they were taught 'Benefits of Good/Bad Body Posture' and after that, post- test was administered to be students of control group. Phase III Pre-test developed by investigator was administered to all students of experimental group. Then they were taught 'Body Posture' through power point. On the next day they were taught 'Benefits of Good/Bad Body Posture' through power point. And post-test was administered to all students of experimental group a- Control group (20 students) b- Experimental group (20 students).

Statistical techniques used

The collection data is known raw data. Raw data are meaningless unless certain statistical treatment is given to them. The following statistical techniques were applied for data analysis mean, standard deviation and t-test.

Analysis and data interpretation

Analysis of pre-test score

same. This reveals that there is no significant difference in pre-test in achievement scores of the two groups. Hence both the groups performed equally well on the pre-test in physical education.

Analysis of post-test score

Table 2: I this part of analysis the means and standard deviation of experimental and control group on the post-test (T_2) were computed and shown

Group	Number of students	Degree of freedom	Mean	Stander deviation	t-value	Level of significance 0.05/0.01
Experimental	20	19	27.50	2.397	6.318	Significant
Control	20	19	21.75	3.603		

The difference between means of post-test scores of the students of experimental & control group on achievement in physical education. From the table it is clear that at the post-test stage the t-value of 6.318 for df 19, the different in mean score of the students experimental and control group on the achievement test in science is significant at 0.01. The table reveals that the mean scores of 27.5 of students of experimental group in higher than the mean score of 21.7 of control group. This indicate that the achievement of the students of experimental group in significantly higher than that of the control group.

Results of Discussion

From the above table we can see that calculated t-value come out to be 6.318 which is far above the table t-value of 2.09 at 0.05 levels of significance and table t- value of 2.86 at 0.01 levels of significance. In the light of above results the set hypothesis is rejected. Thus we can say that there is

significant difference in student's achievements in science while ICT in teaching through computer and traditional method.

Finding

The result of study indicates that there is a significant difference in student's achievement in physical education while ICT teaching through computer and traditional method.

Conclusion

The research has proved that teaching through computers helps in improving student's achievements in physical education. Computer based teaching creates interest among student and motivated them to learn.

Suggestions

Providing sessions on use of ICT in PE as part of the programme of PE. There were, for example, very positive

reports for sessions on using PowerPoint in PE, and on digital video in PE.

1. To identify suitable ICT/PE training and support for teachers on how to implement technology and on how to integrate it into their teaching programmes.
2. To encourage groups of schools to work together and draw on each other's' expertise, or identify common needs which can be met jointly.
3. To proactively encourage/enable sharing of ideas, examples of good practice and prepared materials such as video clips and scenarios which have proved 'successful' (i.e. have made an impact on learning and performance). The University website may be able to play a role in facilitating this.
4. To encourage school-based tutors to work closely with their school ICT tools co-ordinator to get a better understanding of the opportunities and limitations of ICT use within the school. This will also improve shared understandings of the needs within PE.

Recommendations

- Since the computer is taught as subject from primary classes onwards, so the technology aided learning needs by popularized without much effort.
- Teacher may be adequately prepared through orientation program, to play a supportive role in order to lead the learners towards an optimum level of achievement.
- Using video cameras and video analysis software for analysing, assessing and improving performance.
- PowerPoint for presentation and demonstration of pupils' ability to select and synthesise information to meet their needs and develop an ability to question its accuracy, bias and plausibility.
- Using the ICT tools to find resources to support teaching extend pupil learning and set enrichment activities.
- Heart rate monitors and other health related exercise equipment to develop pupil knowledge and understanding of what happens to their body during exercise and to develop appropriate training methods for different activities.
- Interactive CD ROMS and DVDs that enable pupils to learn new skills or develop existing skills through visual and auditory demonstrations.

References

1. Simpson M, Payne F. Using Information and Communications Technology as a Pedagogical Tool - Who Educates the Educators? Paper presented at the European Conference on Educational Research, Lahti, Finland; c1999 Sep 22-25. Available from: www.leeds.ac.uk/educol/documents/00001292.doc (accessed 2005 Nov 15).
2. Stidder G. The use of information and communication technology in PE. In: Capel S, editor. Learning to teach Physical education in the secondary school: A companion to school experience. London: Routledge; c2004. p. 219-238.
3. Stratton G, Finch A. Information and communication technology in Physical Education: An ITTE-school partnership perspective. The British Journal of Teaching Physical Education; c2001. p. 24-26.
4. Tearle P, Katene W. The role, current practice and potential for use of Information and Communications Technology in Physical Education in UK secondary schools: A pilot study. Paper presented at: British

Educational Research Association conference, University of Glamorgan; c2005 Sep. p. 14-17.

5. Van Damme G. ICT in Practice for Physical Education & Sports. [Internet]. Available from: <http://www.sports-media.org/> (accessed 2005 Nov 15).
6. Wood J. Body and mind: A report on the use of ICT in PE. Coventry: BECTa; 2005. Available from: http://www.becta.org.uk/corporate/publications/document/s/ict_in_pe.pdf (accessed 2005 Nov 15).
7. Cuckle P, Clake S. Secondary school teacher mentors' and student teachers' views on the value of information and communication technology in teaching. Technology, Pedagogy and Education. 2003;12(3):377-391.
8. Koh M, Khairuddin A. Integrating video and computer technology in teaching - An example in gymnastics initial PE teacher-training programmes in Singapore. The British Journal of Teaching Physical Education. 2004. p. 43-46.
9. Fischer T. Information technology and the curriculum: IT capacity and the new teacher. British Journal of Curriculum and Assessment. 1996;6(2):33-37.
10. Green N. Using ICT within PE - its impact on a working department. The British Journal of Teaching Physical Education; c2002. p. 25.
11. Lockwood A. The role of technology in PE teaching. In: Capel S, editor. Learning to teach Physical education in the secondary school: A companion to school experience. London: Routledge; c1997. p. 209-217.
12. Ofsted. Ofsted subject reports 2002/3: Physical education in secondary schools. London: Ofsted; c2004a. Available from: <http://www.ofsted.gov.uk/publications/index.cfm?fuseaction=pubs.summary&id=3544> (accessed 2005 Nov 05).