

AN EXPERIMENTAL STUDY OF STUDENTS' ATTITUDE TOWARDS ICT TEACHING PROCESS IN EDUCATIONAL PSYCHOLOGY

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Abstract

Mastery of students' attitudes, beliefs, and interests in ICT is indispensable in designing effective Educational Psychology related courses. This study examined the relationship between the learners' attitude towards ICT teaching and students' active involvement in the class. Acquisition of ICT knowledge has become an integral part of today's life. The participants were the student teachers under the age of 21-35 age group – I year of Thiagarajar College of Preceptors, Madurai District, Tamil Nadu, India. At the present era, the educational system seeks to prepare teachers and students for the workforce, and technology has become significant in Higher education. Results indicated significant substantial between the learners' attitudes towards ICT teaching. In this study, Nearpod is considered an ICT tool that can be used to enhance teaching and learning for those class lectures and assessment. ICT tool like Nearpod helps the teacher and educators to make any lesson interactive, whether in the classroom or virtual. The study's findings showed that the activities of Nearpod have promoted active and joyful learning in the actual classroom. Students feel comfort in responding to questions by answering digitally while the teacher encourages in-class discussion.

Keywords: Active learning, ICT, Student attitude, Nearpod

Introduction

Every classroom where learning is produced with effective communication between teachers and students through different media and channels. A class with only textbooks as print media and verbal information from the teacher is now transformed into one equipped with multimedia tools, computers, the internet, digital libraries, etc. (Kent and Facer, 2004) indicated that school is an is sential environment in which students participate in a wide range of computer activities, while the home serves as a complementary site for regular engagement in a narrower set of computer activities. The new classroom with digital tools and technologies is ICT equipped classroom. ICT stands for Information and Communication Technology which is a generic term that includes technologies that are used for collecting, storing, editing, processing, creating, and transmitting information from one source to another in various forms. ICT changes classroom teaching through its potential as a source of knowledge, a medium to transfer content, and a means of interaction based and process-oriented. This brings creativity, critical thinking, logical thinking, problem-solving, co-operative, and self-confidence in learners. These skills are developed through the application and integration of ICT and its modern tools in the classroom. These tools have fundamentally changed the process involved and exercised in education. It is helpful for teachers, students and administration. Undoubtedly, ICT helps in enhancing the teaching-learning process

through rich learning experiences. Learners are very actively involved in the learning processes in ICT-based classrooms. ICT provides both learners and instructors with more educational affordances and experiences. Nearpod is a web-based tool that allows students to engage with a teacher during the classroom transaction. Adopting technology enhanced learning, it will enable the teacher educator to adapt educational activities to the specific learner's style, pace and learning needs. On the other hand, it also results in where the student's taking ownership of their participation in the learning activity and knowledge development (Hwang, *et al.*, 2015).

Materials and Methods

In Educational Psychology, the topic of Creativity was taught among student teachers with the aid of PowerPoint presentations and ICT Tools. The Pre-test was conducted through paper mode as well as ICT based tool on two groups. The researcher has used the ICT tool like Nearpod which follows the categories of topic outline, statement, opinion about the image, match test and quiz. The researcher collected the results performed by student teachers. The statistical tool used for analyzing the 't' Test is PAST software. Mean, Median, Standard Deviation, and Standard Error were calculated using Microsoft Excel.

Delimitations of the Study

The current study is undertaken only at I B.Ed student teachers of "A" section at Thiagarajar College of Preceptors in Madurai District, Tamil Nadu.

Objectives of the Study

1. To study the students' attitude towards ICT teaching and student engagement in the class.
2. To execute the appropriate teaching technique in Educational Psychology.
3. To analyze web-based technology like Nearpod as a teaching and learning
4. method to promote independent learning among students.

Hypothesis

There is significant difference between pre-test and post-test of student teachers in Educational Psychology.

Research Design

The investigator has adopted the single-group pre-test and post-test experimental method for the present study.

Population

The population of the study was I B.Ed student teachers of the "A" section at Thiagarajar College of Preceptors in Madurai District, Tamil Nadu.

Sample

A sample of 35 First Year B.Ed student teachers of the “A” section at Thiagarajar College of Preceptors in Madurai District, Tamil Nadu.

Sampling Technique

A purposive random sampling technique was used by the Investigator.

Data Analysis

Appropriate statistical techniques like mean, standard deviation, percentage analysis and t-test were used to analyze the data.

Table 1 The Level of Percentage Analysis of Pre-Test

Low	%	Medium	%	High	%
6	17	22	63	7	20

The above table reveals that 17%, 63% and 20% of students have low, moderate, and high levels of pre-test scores, respectively, concerning creativity topics in Educational Psychology.

Table 2 The Level of Percentage Analysis of Post-Test

Low	%	Medium	%	High	%
4	11	15	43	16	46

The above table reveals that 11%, 43% and 46% of students have low, moderate, and high levels of post-test scores, respectively with concerning to creativity topics in Educational Psychology.

Hypothesis Testing

Null Hypothesis

Table 3 Difference in Pre-Test and Post-Test Scores of I B.Ed. Student Teachers in Creativity Topic of Educational Psychology

Group	N	Mean	Median	SD	SE	Calculated 't' value	Table value	Remarks (at 5% level)
Pre-test	35	28.543	29	6.779	1.163	4.523	1.96	Significant
Post-test	35	38.971	33	13.641	2.305			

It is inferred from the above table that the calculated 't' value (4.523) is greater than the table value (1.96) at a 5% level of significance. Hence the null hypothesis is rejected. That is, there is significant difference between the pre-test (28.543) and post-test (38.971) scores of creativity topics in educational psychology. This may be due to the reason that the teaching technique influences the student's achievement.

Findings

Based on the study, the following findings were obtained.

- 17%, 63%, and 20% of students have a low, moderate, and high levels of pre-test scores, respectively, with concerning to creativity topic in educational psychology.
- 11%, 43%, and 46% of students have a low, moderate, and high levels of post-test scores respectively, with concerning to creativity topic in educational psychology.
- There is significant difference between pre-test ($m=28.543$) and post-test ($m=38.971$) scores of creativity topics in educational psychology.

Suggestions

- To make all the students understand on creativity topics of educational psychology by using ICT the Nearpod.

Recommendations

- This study may be conducted on various topics of the B.Ed curriculum using the Nearpod tool.
- This study may be conducted using different ICT tools.
- A similar study may be conducted at arts and science colleges also.

Conclusion

After adopting the usage of ICT-based test on the creativity topic of educational psychology, the student teacher scored more marks in the post-test compared to the pretest. Thus, ICT-based Nearpod tool has made more impact on the student teachers' achievement in Educational Psychology. This teaching technique also promoted independent learning at higher education levels.

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