#### DOI-10.53571/NJESR.2021.3.12.24-32

# A STUDY OF REACTION TOWARDS E-LEARNING OF PROSPECTIVE TEACHERS OF B.ED. PROGRAMMES OF ODISHA

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{Received:20November2021/Revised:12December2021/Accepted:20December2021/Published:29December2021}

#### Abstract

The use of multimedia technology and the internet in the teaching-learning process has been used to improve accessibility and standards of delivery and learn among students and teachers. As a result, e-learning represents a new paradigm shift from traditional teaching-learning methods to advanced methods. The aim of this study was to find out the reaction towards e-Learning of prospective teachers in Sambalpur district of Odisha. The survey method was used for the study. The study involved 500 prospective teachers from 3 Educational institutes in Sambalpur District. A standardized 5-point questionnaire called eLearning reaction scale was used to collect data. Descriptive and Differential Analysis were employed by using SPSS and interpretations were made. It was found that Male prospective teachers of 3 years B.Ed. M.Ed. programme who come from Urban area has had a better reaction towards e-Learning in Sambalpur district of Odisha.

**Key Words-** Reaction, e-Learning, Prospective Teachers, B.Ed., Integrated B.Ed. Integrated B.Ed.-M.Ed.

#### Introduction

In the twenty-first century, people's learning styles are rapidly changing. Learning used to be teacher-student and book-learner, but today's learning is completely reliant on the resources available on the Internet (World Wide Web). In recent years, emerging information and communication technology (ICT) has been used to improve students' awareness and skills. In education, digitalization refers to the use of computers, cell phones, the internet, software apps, and other devices to teach students. Traditional higher education may not be feasible due to financial, personal, or other constraints, but e-Learning allows people to access a world-class learning experience. There is a significant demand for e-Learning in countries such as India. In order to provide students with a high-quality education, in 1998

UNESCO world education report recommended that ICT be implemented immediately in higher education. We will be able to break free from traditional teaching and learning approaches by designing and integrating innovative new technology in higher education.

Educators must be ready for a technologically advanced world and adapt to the times by implementing effective techniques that incorporate appropriate innovations into classes. They must develop efficient and effective strategies for transmitting the rapidly expanding knowledge to the learner. Most pre-service teachers in India know very little about how to use technology effectively in the classroom. There is a need for technical training to improve the efficiency level of the teachers. The consensus is that teacher education, especially inservice, is not adequately trained to operate in a technologically enhanced classroom. Despite developments in information and communication technologies, the ability of teacher education members is still untapped.

In this sense, any teacher instructor must be familiar with various innovative instructional techniques that can result in significant pedagogical and curriculum content adjustments. These are both important for increasing student productivity and the efficacy of teaching and learning. For the supervision and maintenance of norms and practices in teacher education, the National Council of Teacher Education (NCTE) has taken several initiatives. Many new courses of study have been added, such as the 4-year Integrated B.Ed (B.Sc/BA-B.Ed) and 3 years integrated B.Ed-M.Ed programmes, Along with the current 2 years B.Ed.

#### Need for the Study

As we all know, teaching and learning technology has advanced from classroom lectures to seminars to video discs and CD-ROMS to web-based instruction and wireless networking through different learning objects. CDs, electronic books, and electronic magazines and audio-visual aids are examples of learning objects, and technology continues to progress. e-Learning is the product of advancements in information technology. e-Learning is thought to be a more efficient means of educating a vast number of pupils, ensuring instructional content quality. The opportunity made available through e-Learning is significant and numerous, which should be known to prospective teachers. So that the investigator selected the topic "A Study of Reaction towards e-Learning of Prospective Teachers of B.Ed. programmes of Odisha".

#### **Methodology of the Study**

## **Statement of the Problem**

A Study of reaction towards e-Learning of Prospective teachers of B.Ed. programmes of Odisha

# **Research Objectives**

- 1. To compare mean score of reactions towards e-Learning of prospective teachers based on their B.Ed. programmes
- 2. To compare mean scores of reactions towards e-Learning of male and female prospective teachers
- 3. To compare mean score of reactions towards e-Learning of science and Arts prospective teachers
- 4. To compare mean score of reactions towards e-Learning of urban and rural prospective teachers

#### Hypotheses of the Study

- 1. There is no significant difference in mean scores of reactions towards e-Learning of prospective teachers with respect to their B.Ed. programmes
- 2. There is no significant difference in mean scores of reactions towards e-Learning of prospective teachers with respect to their gender
- 3. There is no significant difference in mean scores of reactions towards e-Learning of prospective teachers with respect to their optional group
- 4. There is no significant difference in mean scores of reactions towards e-Learning prospective teachers with respect to their location

## Variables under Study

## **Independent variables**

The following four group variables are associated with the respondent's category.a) B.Ed. Programme, b) Educational Steam, c) Gender and d) Locality.

#### **Dependent variables**

The factors which shall be treated as the dependent variables are as follows:

a) The reaction towards e-Learning of prospective teachers

#### Method and Design of the Study

In the present study, the Survey method is adopted. The study has focused on data collection through 5-point Rating Scales, whereas the tool was constructed by the investigator and Standardized by the 3 experts. The reaction towards the e-Learning Scale was administered to those prospective teachers after availing prior permission from the respective heads and shown keen interest in filling this questionnaire. The collected data

was classified, organized, and analysed for testing the hypothesis formulated in the present study by using SPSS (Statistical Package for Social Science) software.

#### Population of the Study

For this study, the investigator selected B.Ed. colleges, Universities in which more than 5000s male and female students studying B.Ed., B.Sc./BA- B.Ed. and Integrated B.Ed.-M.Ed. with optional groups.

# Sample and Sampling Procedure of the Study

In order to generalize our results from the sample to the target population, we need a sample that is representative of the target population. For this research study, the target student population is restricted to the total enrolled students during 2020- 2021 of B.Ed. programmes offered by the different universities of Odisha.

The researcher has applied the "Purposive Sampling" technique for student's response. It was a fairly representative sample for the target student population. 500 students are selected from Sambalpur district for this research. The number of students from each course selected proportionate to their relative percentage concerning B.Ed. programmes to represent the total sample properly. This sample is about 10% of the total population of 5000 students.

#### Research Tools and Procedure

For this study, the researcher had developed a 5-point reaction scale, following the guidelines given by Likert (1932). The questionnaire was made available through the web. However, to keep the record for administrative purposes, a questionnaire was transmitted through print media to the parent department. The tool was constructed by the investigator and Standardized by the 3 experts.

In each of the 3 selected departments/colleges, the researcher has organized a face-to-face session with students. The researcher appealed to all students from each college to participate in these sessions. Well-structured feedback in the form of answers to the questionnaire was collected from students. The accuracy of collected feedback was validated and confirmed during personal interaction.

#### **Analysis and Interpretation of the Data**

## **Analysis and Result**

In the present study, the following statistical techniques were used, Descriptive Analysis (Mean, Standard Deviation) and Differential Analysis (t-values)

Table 1:

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Test of Significance of Difference in Reaction towards e-Learning among Prospective teachers

Entire Sample	N	Mean	SD	
	500	74.35	8.63	

Prospective teachers have a favourable reaction towards e-Learning. The above hypothesis was tested using mean scores of reactions towards e-Learning among Prospective teachers. The table shows the reaction towards e-Learning among the Prospective teachers. The mean score of 74.35 is found to be greater than 50%, so the hypothesis is to be accepted. Therefore, prospective teachers have a favourable reaction towards e-Learning

Table 2:
Test of Significance of Difference in Reaction towards e-Learning among Prospective teachers with respect to their B.Ed Programme (2 Year B.Ed., 3 Year B.Ed M.Ed. programmes and 4 year Int. B.Ed).

Programme	N	M	SD	SEd	M1-M2	df	T
2-year B.Ed.	160	74.43	9.23	1	2.22	288	2.22*
3year Int. B.Ed-M.Ed	130	76.65	8.62				P<0.05
programme	130	70.03	6.02	1	2.36	338	2.36*
4 year Int. B.Ed	210	74.24	9.46	1	2.30	<i>33</i> 8	P<0.05

The null hypothesis "There is no significant difference in mean scores of reactions towards e-Learning of prospective teachers with respect to their B.Ed. programmes" is tested. The t' values are greater than the critical value 1.96 at 0.05 level. Hence, it is significant, so the Null hypothesis is to be rejected and it can be said that there is a significant difference in reaction towards e-Learning among the Prospective teachers with respect to their B.Ed programmes.

Table 3:
Test of Significance of Difference in Reaction towards e-Learning among Prospective teachers with respect to their Gender.

Sex	N	M	SD	SEd	M1-M2	df	T
Male	226	77.15	11.95	1	3.34	498	3.34
Female	274	73.84	10.23				P<0.01

The null hypothesis "There is no significant difference in mean scores of reactions towards e-Learning among Prospective teachers with respect to their sex" is tested. The t' value is greater than the critical value 2.590 at 0.01 level and hence it is significant. Consequently, the Null hypothesis is to be rejected and it can be said that there is a significant

difference in reaction towards e-Learning among the Prospective teachers with respect to their Gender.

Table 4:
Test of Significance of Difference in Reaction towards e-Learning among Prospective teachers with respect to their Optional Group.

Group	N	M	SD	SEd	M1-M2	df	T
Arts	207	72.45	11.76	1	1.73	498	1.73
Science	293	74.18	9.89				P>0.05

The null hypothesis "There is no significant difference in mean scores of reactions towards e-Learning among Prospective teachers with respect to their optional group" is tested. The t' value is less than the critical value 1.96 at 0.05 level and hence it is not significant. Consequently, the Null hypothesis is to be accepted and it can be said that there is no significant difference in reaction towards e-Learning among the Prospective teachers with respect to their optional group.

Table 5:
Test of Significance of Difference in Reaction towards e-Learning among Prospective teachers with respect to their Location.

Location	N	M	SD	SEd	M1-M2	df	T
Urban	228	74.64	11.56	1	1.98	498	1.98
Rural	272	72.66	10.93				P<0.05

The null hypothesis "There is no significant difference in mean scores of reactions towards e-Learning among Prospective teachers with respect to their location" is tested. The t' value is greater than the critical value 1.96 at 0.05 level and hence it is significant. Consequently, the Null hypothesis is to be rejected and it can be said that there is a significant difference in reaction towards e-Learning among the Prospective teachers with respect to their location.

#### **Findings and Discussions**

Findings of the study based on descriptive and differential analysis of the data related to overall reaction towards e-Learning are described below

- 1. The mean and SD of overall reaction towards e-Learning were 74.15 &8.73, respectively.
- 2. The overall reaction towards e-Learning mean score was more (76.65) for 3 years B.Ed. M.Ed. programme than 2year B.Ed. programme (74.43) and 4-year integrated B.Ed. programme (74.24).
- 3. The overall reaction towards e-Learning mean score was more (77.15) for males than females (73.84).

- 4. The overall reaction towards e-Learning mean score was more (74.18) for the Science group than Arts group (72.45).
- 5. The overall reaction towards e-Learning mean score was more (74.64) for Urban trainees than Rural trainees (72.66).
- 6. There is a significant difference between different B.Ed programme Prospective teachers reaction towards e-Learning at 0.05 level where 3-year B.Ed. M.Ed. programme is better than 2 years B.Ed. and 4 year integrated B.Ed.
- 7. There is a significant difference between male and female prospective teachers' reaction towards e-Learning at 0.01 level where male prospective teachers are better than female prospective teachers.
- 8. There is no significant difference between the Arts and Science group prospective teachers' reaction towards e-Learning even at 0.05 level.
- 9. There is a significant difference between the Urban and Rural prospective teachers' reaction towards e-Learning at 0.05 level where Urban prospective teachers are better than Rural prospective teachers.

#### **Summary**

The purpose of the study was to show how prospective teachers react about e-Learning. It was a survey research study that looked at how prospective teachers react and feel about e-Learning, particularly its use as per their needs. The independent variable was B.Ed. programmes, gender, educational stream, and locality, whereas the dependent variable was a reaction towards the e-Learning of prospective teachers.

The objective of this study was to compare mean scores of reactions towards e-Learning of prospective teachers based on different independent variables. The hypothesis of this study was to such that there is no significant difference in mean score of reaction towards e-Learning with respect to independent variables.

The study was conducted by using the purposive sampling technique. Participants were selected for the study and were given an e-learning tool developed by the researcher and standardized by 3 exports. Participants were asked to respond to the questionary according to their choice. The data were collected and analysed with the help of statistics; Descriptive Analysis (Mean, Standard Deviation) and Differential Analysis (t-values) are used.

The major conclusion to this study was that the prospective teachers have a better reaction towards e-Learning. However, B.Ed. programme, Age, Sex, Optional group, Locality, brought slight differences in the reaction towards e-Learning of prospective teachers. It was also found that, Male prospective teachers of 3 years B.Ed. M.Ed. programme who come from Urban area has had a better reaction towards e-Learning in Sambalpur district of Odisha.

#### Recommendations

Based on the limitation of the study attributed to time constraints, the researchers opted for the purposive sampling technique; therefore, future studies could be done with a random sampling technique for data collection. The sample size for the current study consists of three teacher education institutions as a survey study; hence the researchers recommend that future researches could be also be tested in comparison with other institutions of learning in Odisha. Although the researchers utilized the purposive sampling technique, it is recommended that future studies should use a random sampling technique with a larger sample size for the data observation. This research may be extended to a larger sample from Odisha state as a whole and a similar study can be replicated in other parts of the country. The researcher can also investigate the impact of e-Learning on different variables

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