



BLENDDED E-LEARNING IN TEACHER EDUCATION

Gajanan Gulhane, Ph. D.

Professor & Head, Post Graduate Department of Education, Sant Gadge Baba Amravati University, Amravati, Maharashtra, India glgulhane@gmail.com

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Abstract

Blended learning provides a new learning environment that combines face-to-face teaching with technology-mediated instruction. National Education Policy-2020 focuses on online learning as an alternative to regular classroom interaction between teachers and students. It helps in achieving the twin objectives of cutting costs and increasing enrolment. To meet the demands of changing the world and face the challenges with confidence, the teacher trainees must use blended e-learning technique in teaching-learning process. This research paper attempted to study the attitude of teacher trainees and views of teacher educators towards the implementation of blended e-learning in teacher education. The study revealed that there is statistical significant mean differences between the score of the attitude of male and female teacher trainees towards factors affecting in implementation of blended e-learning like achieving course objectives, online resources and support from teacher educators and almost 86 % teacher educators have a positive views towards the use of blended e-learning in teacher education.

Keywords: *Blended e-Learning, Teacher Trainees, Teacher Education*



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Introduction: The Ministry of Human Resource Development approved the draft of National Education Policy in 2020. The National Education Policy aims to cater to the many growing developmental imperatives of this country on the one hand, while creating a just and equitable society on the other. With the advent of the COVID-19 pandemic and the trend towards electronic alternatives of education instead of traditional face-to-face education, e-learning emerged. As some academic subjects of teacher education necessitates attending college and teaching practice in the classroom, blended e-learning came to be a suitable solution. Now the technological term e-learning is now replaced by blended e-learning. Blended e-learning allows students to access content from home, communicate with teachers, and work with other people online and offline.

What is Blended e-Learning:

E-learning refers to the use of digital technologies to deliver complete learning programs. In other words, the participants of an e-learning program can take part in all the sessions from the comfort of their own homes as long as they have a computer and an internet connection. Whereas blended e-learning refers to an approach that combines e-learning with traditional in-person learning (think of lectures, workshops, and training sessions) and independent study. Blended e-learning is the combination of multiple approaches to learning like face-to-face learning, e-learning, collaborative learning and individual practices like programmed learning. The term blended e-learning is used to describe a learning situation that combines several delivery methods with the goal of providing the most efficient and effective instruction experience by such combination (Harriman, 2004).

Garrison and Kanuka (2004) suggested that, blended learning is a term that explains the various attempts made by teachers to incorporate the element of technology into the traditional classroom setting, because of the efficiency this arrangement brings. Blended learning aims at interactive learning, resulting in the blending or mixing of a teacher's role in a traditional classroom with that in the virtual one. The technology applied in blended learning is often intended to generate optimal performances by students. According to Salama (2005), blended learning is a logical and scientifically acceptable alternative to e-learning, has higher yields, is less expensive, and incorporates more sophisticated types of learning.

Significance of Blended e-Learning:

Blended e-learning offers flexibility in terms of availability. In other words, blended e-learning enables the student to access the materials from anywhere at any time while enjoying the benefits of face-to-face support and instruction. Blended e-learning has the following significance, particularly in teacher education. These are listed as:

- **Enhance trainees interest:** Voos (2003) suggested that blended learning designs can enhance learner and faculty satisfaction with learning. When technology is integrated into school lessons, trainees are more likely to be interested in, focused on, and excited about the subjects they are studying. Subjects that might be monotonous for some – like mathematics and science, while also increasing information retention.
- **Provides trainees autonomy:** The use of e-learning materials increases a trainee's ability to set appropriate learning goals and take charge of his or her own learning, which develops an ability that will be translatable across all subjects.

- **Keep trainees focused for longer:** The use of laptops to look up information and data is a tremendous lifesaver, combined with access to resources such as the internet to conduct research. This engagement and interaction with the resources keeps trainees focused for longer periods than they would be with books or paper resources, this engagement also helps develop learning through exploration and research.
- **Promote student ownership:** Blended e-learning instills a sense of ‘student ownership over learning’ which can be a powerful force propelling the learning, It’s this feeling of responsibility that helps the feeling of ownership.
- **Instill a disposition of self-advocacy:** Students become self-driven and responsible, tracking their individual achievements, which helps to develop the ability to find the resources or get the help they need, self-advocating so they can reach their goals.

From the above significance of blended e-learning, we can say that it is an integral part of teaching learning process, particularly in teacher education.

Literature Review of Blended Learning:

The relevant related published research papers and related articles from various sources, which the researcher has come across, are arranged below in chronological order: Heba EL-Deghaidy (2007) studied the effectiveness of a blended e-learning cooperative approach in an Egyptian teacher education programme. The findings suggest that Pre-Service Teacher’s (PST) in the experimental group have higher achievement levels in their post-overall-course test, ‘comprehensive-score’, and attitudes towards e-learning environments compared to those of the control group. The specific design of the course may be responsible for these changes. Marta Žuvic-Butorac (2011) published research paper on Blended E-Learning in Higher Education: Research on Students’ Perspective. The results obtained from “the general importance of specific e-learning elements” part of the survey indicated that students value the most the completeness, organization and design of educational materials, as well as teachers’ online engagement, especially in good management of e-course, in regular communication and timely providing feedback.

Thelal Iqab Oweis (2018) undertaken a pilot study on, ‘Effects of Using a Blended Learning Method on Students’ Achievement and Motivation to Learn English in Jordan with the aims at investigating the effect of blended learning on the achievement and motivation to learn English of German Jordanian University students. The study revealed that there is statistically significant differences in achievement between the two groups, indicating that the experimental

group performed better than the control group. Significant differences were also found in the respective groups'. Korkmaz and Karakus's (2021) studied the Impact of Blended Learning Model on Student Attitudes towards Geography Course and Their Critical Thinking Dispositions and Levels. Findings of the study showed the positive relationship between blended e-learning and the development of critical reading and writing skills. Many respondents showed their preference for blended e-learning. Abdullah Bin Mohamed Al-Ghadouni (2021) undertaken Critical Thinking and Blended E-learning: A Review of Scientific Studies with aims to reveal the relationship between critical thinking and electronic learning mixed through scientific studies in the field of blended e-learning, to identify the educational stages in which e-learning was used and the extent of its impact on the development of critical thinking. The study revealed that there is a positive relationship between blended e-learning and critical thinking.

By reviewing above scientific studies in the field of blended e-learning, most of the previous scientific studies have found that the use of blended e-learning in teaching and learning can improve the quality of education and some studies have shown a positive impact of blended e-learning on the academic achievement of the learners.

Research Gap and Research Questions:

The above reviews of the literature have synthesized trends and provided an analysis of findings, but no systematic research has been conducted on the factors affecting on the implementation of blended e-learning at teacher education. This research paper is to study the attitude of teacher trainees and views of teacher educators towards different factors affecting on the implementation of blended e-learning at teacher education. Based on the above-related reviews and own experience, the researcher has identified the research questions: 1) Can we use blended e-learning technique as a means of learning in teacher education? 2) Can blended e-learning improve the quality of teacher education? 3) What is the attitude of teacher trainees towards different factors affecting on the implementation of blended e-learning at teacher education? and 4) Are blended e-learning essential components of teacher training curriculum?

Objectives of the Study: The study was undertaken with the following allied objectives:

- i. To compare the attitude of male and female teacher trainees towards different factors affecting in the implementation of blended e-learning at teacher education; and
- ii. To know the views of teacher educators and heads of the institution towards the difficulties in the implementation of blended e-learning at teacher education.

Hypothesis:

Keeping in view the objectives of the study, the following null hypothesis was formulated for the present study:

H₀: There is no statistically significant mean differences between the score in the attitude of male and female teacher trainees towards different factors affecting in the implementation of blended e-learning at teacher education.

Delimitation of the Study:

The present study was delimited to the teacher trainees studying in the teacher training institutes in the Amravati Division of Maharashtra, India. The study was undertaken in the academic session 2020-21. The study was also delimited to the four factors affecting in the implementation of blended e-learning like – learning atmosphere, course objectives, online resources, access to technical support, and support from teacher educators.

Methodology of the Study:

The researcher has used survey method to carry out the present study. The population of the present study was around 2250 teacher trainees studying in the teacher education institutions and their 180 teacher educators. The stratified random sample technique was used to select 300 male and female teacher trainees and a purposive sampling technique was used to select 90 teacher educators and 45 heads of the teacher education institutions. Research tools like e-learning attitude scales, questionnaire and interview technique were used for the data collection. The responses were collected using Google form. The questionnaire was circulated through WhatsApp and email during post COVID-19 period. A pilot study was undertaken to verify the relevance of the questions.

Analysis and Interpretation of Data:

The analysis is a vital process of research. The tabulated data were scientifically studied to determine the underlying or inherent facts. The data were scored according to the scoring pattern of the scale. The appropriate inferential statistics was employed for describing and analyzing the data and testing the hypothesis. The analysis and interpretation of the e-learning attitude scale of the teacher trainees is presented in the following table-01.

Table-01 Comparison of mean score of the attitude of male and female teacher trainees towards different factors affecting in implementation of blended e-learning (BL)

Factors affecting in implementation of BL	Variable	Sample N	Mean M	Standard Deviation SD	t-value	Level of Significance
Achieving Course Objectives	Male Teacher Trainees	150	23.50	3.30	2.86	Significant
	Female Teacher Trainees	150	22.10	4.98		
Learning Atmosphere	Male Teacher Trainees	150	22.20	3.46	1.89	Not Significant
	Female Teacher Trainees	150	22.90	2.92		
Online Resources	Male Teacher Trainees	150	30.60	6.20	2.83	Significant
	Female Teacher Trainees	150	32.49	5.30		
Support from Teacher Educators	Male Teacher Trainees	150	29.50	6.10	4.10	Significant
	Female Teacher Trainees	150	32.20	5.26		

Ref: The facts and figures in the above table are based on the field data collected

The above table reveals that there is a statistical significant mean differences between the score in the attitude of male and female teacher trainees towards three factors affecting in implementation of blended e-learning like - achieving course objectives, online resources and support from teacher educators. Hence, the null hypothesis H_0 is rejected for the three factors like achieving course objectives, online resources and support from teacher educators affecting in implementation of blended e-learning at 0.01 level of significance.

Findings: Based on the analysis and interpretation of the field data, the following findings have been drawn:

- There is statistically significant mean differences between the score in the attitude of male and female teacher trainees towards factors affecting in implementation of blended e-learning like achieving course objectives, online resources and support from teacher educators.

- It is observed that female teacher trainees are more conscious of the use of the blended e-learning in teacher education than male teacher trainees.
- Almost 86 % teacher educators have a positive views towards the use of blended e-learning in teacher education.
- Nearly 66% teacher educators argued that teacher trainees performed better when blended e-learning was employed in teacher education institutions.
- Most of the heads of the institutions argued that the access to the internet and technical support are the key component in the implementation of blended e-learning in teacher education institutions.

Conclusion: Blended learning systems change the way the learners learn, but also change the way the teachers teach. Teacher education institutions are increasingly taking steps to implement blended e-learning in teaching - learning process. For the effective implementation of blended e-learning, technological training and support should be made available for teacher trainees and professional development support for the teacher educators.

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