

Attitude of Prospective Teachers towards Blended Learning Technology: A Normative Approach

Dr. Shazli Hasan Khan

Assistant Professor,

MANUU, CTE,

Sambhal-U.P.

India

Abstract

The rapid advancements in the field of information and technology have made remarkable changes in the traditional educational systems. It adopts modern technology and pedagogical techniques in teaching-learning process and creates innovative learning environments that motivate the students for better learning. Such a system of learning is mainly based on Internet services which facilitate active learning. It disseminates different types of information needed for the holistic development of an individual. Blended learning has emerged as an effective method of learning to meet the needs of students' learning styles. The growth of blended learning environments in education has emphasized the need for better ways of describing and recognizing good teaching that promotes student learning in these environments. Blended learning combines online components with the conventional face-to-face components that optimize best practices in teaching and learning through synchronous and asynchronous learning environments. Blended learning increases the options for greater quality and quantity of human interaction in a learning environment. Blended learning offers learners the opportunity "to be together and apart". Blended learning provides a 'good' mix of technologies and interactions, resulting in a socially supported, constructive, learning experience. In the present paper, the author studied the attitude of two hundred prospective teachers towards blended learning. The findings of the study revealed that the female prospective teachers and prospective teachers who were from science streams were having high favourable attitude towards blended learning methods as compared to the male prospective teachers and those who were from arts stream.

Key words: Blended learning, Information technology, Online learning, Likert type attitude scale, Prospective teachers

Introduction

In recent years, Information and Communication Technology (ICT) has paved the way for accelerating the paradigm shift in the process of teaching and learning through providing more flexible ways of learning. The demand for new technologies and the 24/7 global environment can't be satisfied with the only source of classroom instruction, with its inherent classroom limitations. The students can do self-learning using enormous potentials of Internet and providing them with several online exercises. Some of the researches show that focusing purely on the technology would be wrong. The main focus should be on learning rather than on technology. It is critical that research should explore not only on the development of ICT to be used, but also on the role of effective pedagogy that can maximize students' learning using ICT tools. It has been widely recognized that harnessing the power of ICT requires appropriate learning strategy to harmonize effectiveness in learning with technology role. On the other hand the significance of face-to-face instruction can't be ignored since the live human interaction in 'teaching' (or learning) can't be denied to a large extent. Keeping all these in view, a consensus has emerged among educationists working in the area that there is a need for tapping the wide applicability of online learning with face-to-face instruction and then evolve 'Blended Learning'.

Blended learning means many things to many people, even within our relatively small online learning community. It is referred to as both blended and hybrid learning, with little or no difference in the meaning of the terms among most educators. In general terms, blended learning combines online delivery of educational content with the best features of classroom interaction and live instruction so as to personalize learning, allow thoughtful reflection, and differentiate instruction from student-to-student across a diverse group of learners.

Blended learning refers to a mixing of different learning environments. The phrase has many specific meanings based upon the context in which it is used. Blended learning gives learners and teachers a potential environment to learn and teach more effectively. Blended learning increases the options for greater quality and quantity of human interaction in a learning environment. Blended learning offers learners the opportunity to be both together and apart. A community of learners can interact at anytime and anywhere because of the benefits that computer-mediated educational tools provide. Blended learning provides a

good mix of technologies and interactions, resulting in a socially supported, constructive, learning experience, this is especially significant given the profound effect that it could have on distance learning. A typical example of blended learning methodology would be a combination of technology-based materials and face-to-face sessions to present content. Blended learning can also be applied to the integration of e-learning with a Learning Management System using computers in a physical classroom, along with face-to-face instruction.

Dziuban, Hartman and Moskal (2004) in a research brief for EDUCAUSE titled, “Blended Learning” noted that, “*Blended learning should be viewed as a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment, rather than a ratio of delivery modalities*”. In other words, blended learning should be approached not merely as a temporal construct but rather as a fundamental redesign of the instructional model with the following characteristics:

1. A shift from lecture to student centered instruction in which students become active and interactive learners.
2. Increase in interaction between student-instructor, student-student, student-content, and student- outside resources.
3. Integrated formative and summative assessment mechanisms for students and instructor.

Most importantly, in this view, blended learning represents a shift in instructional strategy. Just as online learning represents a fundamental shift in the delivery and instructional model of distance learning, blended learning offers the possibility to significantly change how teachers and administrators view online learning in the face-to-face setting. Thus, it can be said that blended learning consists of two features:

1. It is a planned combination of online learning and Face-to-Face instruction using a variety of learning resources.
2. It is an educational format that integrates online learning techniques including delivery of materials through web pages, discussion boards, and e-mail with traditional teaching.

Characteristics of Blended Learning

In general, blended learning environment has three characteristics. The first one is flexibility of providing learning resources. Blended learning is treated as an instructional strategy which is developed in a networked environment. Such a strategy is usually supported by Virtual Learning Environments (VLEs), which are a computer-based standardized

learning system and are used to sustain content delivery of= online learning as well as to encourage online communication between an instructor and learners. The second is support of learning diversity. As learners are varied in terms of learning styles, learning proficiency, as well as learning ability, blended learning can come to liberate by making it possible for individualized learning and self-regulated learning to happen. Teachers can use combined approaches to cater for the needs of the diverse student body and to create an opportunity to make everyone's learning an equally successful experience. The third is enrichment of e-learning experience on campus. From the teacher's perspective, blended learning would enable them to improve their existing teaching practices. Nowadays, it is usual to ask students to submit their work by email and then we evaluate their performance by their e-Portfolios. One more specific example, we used to teach students with the typically teacher-centered approach, but now individualized learning is no longer a rarely seen phenomenon. Blended learning systems also help teachers to reduce the burden of calculating the marks of the papers, for the systems can do the whole trick automatically. Form the learner's perspective, learning has become rights of their own, which they can make their own decisions on what they do each day and what they are going to achieve by certain deadlines for the same goal and how they are going to achieve them. Moreover, learning anytime and anywhere has become now a reality.

Review of Related Literature

The investigators have reviewed few studies related to the topic under investigation. Fang (2007) found that this blended learning experience beneficial because they had the flexibility to learn at their own pace, reflect and recapitulate what was taught in class. They enjoyed this new learning experience and found it less stressful, as it allowed them to complete their work at any time. Condie and Livingstone (2007) suggested that students needed to be self-motivated and mature enough to learn in this mode. They also stated that teaching using a blended mode required new pedagogical skills. Boyle (2005) findings suggested that participants still preferred the traditional teaching and learning approaches which is very different from the findings in much of the literature. Eugenia (2010) findings suggested that both groups of students had different preferences on blended learning approach and they preferred face-to-face meetings rather than online activities in general.

Significance of the Study

Most of the traditional class room teaching-learning process fails to engage the young learners actively to construct the knowledge. The knowledge is transferred monotonously and

their needs, interests and attitudes have never been taken into account. Hence, a face to face combination of classroom element with the online instruction, popularly referred to as blended learning has become the alternative that has gained popularity among educators. So far several studies reported that the provision of blended learning courses is highly appreciated and positively rated by the students. The UFC data reveals that blended learning was effective and could lead to higher student success rates in specific academic disciplines (Dziuban et al., 2004). In addition faculty seems to be very satisfied with teacher either blended or online as long as they received training and academic support (Schroeder & Oakley, 2005). Research by Garrison and Kanuka (2004) pointed out that blended learning was not only an acceptable methodology but also a transformative one for higher education. Hiltz and Turoof (2005) also strongly supported the view that the introduction of asynchronous learning networks to campus courses would be a critical breakthrough in improving learning. McCombs and Vakili (2006) reached a similar conclusion because blended learning can lead to a more learner centered education environment. Prospective teachers are the would be teachers to shape the young minds of future society, through active learning methodology. Blended learning could therefore be able to cater the needs of young minds. Thus, this study could be beneficial for students as well as for teacher educational institutions. The valuable study of attitude towards blended learning from two hundred prospective teachers should help to realize the benefit of this method in their education. In this background, this research work has been taken so as to find out the level of attitude of prospective teachers towards blended learning.

Objectives of the Study

The major objectives of the study are:

1. To find the level of attitude of prospective teachers towards blended learning in colleges of education.
2. To find out the significant difference in the attitude scores of prospective teachers towards blended learning with respect to gender, subjects taken, marital status and locality.

Hypotheses of the Study

The hypotheses of the present study are:

1. There exists no significant difference in the attitude scores of prospective teachers towards blended learning with respect to their gender.
2. There exists no significant difference in the attitude scores of prospective teachers towards blended learning with respect to the subject.

3. There exists no significant difference in the attitude scores of prospective teachers towards blended learning with respect to the marital status.
4. There exists no significant difference in the attitude scores of prospective teachers towards blended learning with respect to the locality.

Methodology of the Study

The present research study belongs to the normative survey method, as the study point only to measure the level of attitude of prospective teachers towards blended learning.

i) Sample

The investigator had selected a sample of two hundred prospective teachers through random sampling technique from three different colleges of education in Aligarh district.

ii) Development of the Tool

The investigator developed a tool for collecting the data. The tool used for data collection is Blended learning attitude scale, which consisted of 45 items with a four point rating scale. They are strongly agree, agree, disagree and strongly disagree. The value of coefficient of the reliability test is 0.83 which is found to be highly reliable. The tool was administered to 200 prospective teachers.

Statistical Techniques Used

The statistical techniques used by the investigator so as to carry out the present investigation are: Mean, Standard deviation, and 't' test.

Data Analysis and Interpretation

The statistical techniques were applied and data is analyzed and the following results were obtained as can be seen in the tables given below.

1. Attitude towards blended learning among prospective teachers on total sample.

Table 1: Level of attitude among prospective teachers on total sample (percentage analysis)

S No.	Variable	Low		Moderate		High	
		N	%	N	%	N	%
1.	Attitude	28	14	78	39	94	47

It can be seen from the table 1 that 47% of the prospective teachers have shown a high favourable attitude towards blended learning.

Table 2: Level of attitude among prospective teachers in total sample

S No.	Variable	N	Mean	SD
1.	Total	200	77.39	4.88

From table 2 it can be seen that the Mean and SD of the attitude towards blended learning score on the total sample are 77.39 and 4.88. It shows that the prospective teachers have high level of attitude towards blended learning.

Table 3: Attitude of prospective teachers towards Blended learning with respect to Gender

S No.	Gender	N	Mean	SD	't' value
1.	Male	103	75.81	4.45	4.98*
2.	Female	97	79.07	4.78	

*Significant at 0.05 level

From the above table 3, it can be seen that the 't' value of 4.98 is significant at 0.05 level. It is therefore can be noted that there is a significant difference in the level of attitude towards blended learning with respect to gender. Female prospective teachers are having significantly more level of attitude towards blended learning than their male counterparts. Hence, the framed null hypothesis is rejected.

Table 4: Attitude of prospective teachers towards Blended learning with respect to subject

S No.	Subject	N	Mean	SD	't' value
1.	Science	83	78.93	4.71	3.89*
2.	Arts	117	76.29	4.72	

*Significant at 0.05 level

From the above table 4, it can be seen that the 't' value of 3.89 is significant at 0.05 level. It is therefore can be noted that there is a significant difference in the level of attitude towards blended learning with respect to subject. Prospective teachers who are from science stream are having significantly more level of attitude towards blended learning than the prospective teachers who are from Arts subject. Hence, the framed null hypothesis is rejected.

Table 5: Attitude of prospective teachers towards Blended learning with respect to their Marital status

S No.	Martial Status	N	Mean	SD	't' value
1.	Single	118	76.96	4.45	1.49*
2.	Married	82	78.01	5.43	

*Not Significant at 0.05 level

From the above table 5, it can be seen that the 't' value of 1.49 is not significant at 0.05 level. Hence it can be noted from the result of the above data analysis that there is no significant difference in the level of attitude towards blended learning with respect to marital status. Prospective teachers who are single are having similar level of attitude towards blended learning as their married counterparts. Hence the framed null hypothesis is found to be accepted.

Table 6: Attitude of prospective teachers towards Blended learning with respect to locality of the college

S No.	locality	N	Mean	SD	't' value
1.	Rural	119	66.23	5.14	0.85*
2.	Urban	81	66.79	4.13	

*Not Significant at 0.05 level

From the above table 6, it can be seen that the 't' value of 0.85 is not significant at 0.05 level. Hence it can be noted from the data analysis that there is no significant difference in the level of attitude towards blended learning with respect to the locality of their college. Prospective teachers who are from rural colleges are having similar level of attitude towards blended learning as their urban counterparts. Hence the framed null hypothesis is found to be accepted.

Findings of the Study

The findings of the present study are as following:

1. The level of attitude towards blended learning among prospective teachers is high.
2. The female prospective teachers are significantly having more level of attitude towards blended learning than their male counterparts.
3. The prospective teachers who are from science background are having significantly more level of attitude towards blended learning than the prospective teachers who are from Arts subjects.
4. The single and married prospective teachers are having similar level of attitude towards blended learning.

5. The prospective teachers who are from rural colleges are having similar level of attitude towards blended learning as their urban counterparts.

Educational Implications of the Study

The present research study has the following educational implications:

1. The prospective teachers could be given more adequate training in using this blended learning.
2. Teacher education courses and syllabus could be redesigned.
3. Extensive training, seminars and workshops could be organized for the prospective teachers and they could be provided hands-on experience to use this type of learning.

Conclusion

From the analysis of the data it is found that the attitude towards blended learning among the prospective teachers was high. It shows that the prospective teachers were having some sort of knowledge of blended learning methods. The study also found that the single and married and rural urban areas of prospective teachers are having similar level of attitude towards blended learning. Further, the study also showed that the female prospective teachers are significantly having more level of attitude towards blended learning than the male prospective teachers. Moreover, the prospective teachers who are from the stream of science are significantly having more level of attitude towards blended learning than the prospective teachers who are from the field of arts. These results show that the female prospective teachers and prospective teachers who are from science stream are having more collaborating methods to learn the subject matter and these prospective teachers are having better knowledge of blended learning than their counterparts. Hence it could be concluded that prospective teachers can become more proficient in using blended learning techniques if they are provided better training and are given more hands-on experiences.

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