



BLENDED LEARNING: AN ANALYSIS OF PUPIL TEACHERS' ATTITUDE

Rashmi Nautiyal¹ & Prashant Dabral²

¹Department of Education, Hemwati Nandan Bahuguna Garhwal University
Srinagar Garhwal. email id-rashminautiyal9@gmail.com

²Department of Education, Hemwati Nandan Bahuguna Garhwal University campus Pauri
Srinagar Garhwal. email id-pdabral7231@gmail.com

Paper Received On: 21 December 2024

Peer Reviewed On: 25 January 2025

Published On: 01 February 2025

Abstract

In the modern era of ICT and educational expansion where everyone has access to educational opportunities, the quality of education and learning remains a critical issue. However, the emergence and application of ICT has affected the quality of education. The integration of ICT with traditional teaching helps to enrich the teaching-learning process. Thus, this integrated form of educational system is called blended learning. The aim of the study is to investigate the attitudes of student teachers of HNB Garhwal University towards blended learning. A descriptive survey research method was adopted for the study. The sample consists of 179 student teachers from three campuses of HNB Garhwal University. A self-made instrument of 35 statements was used to measure learners' attitudes towards blended learning. The results show that student teachers have a positive attitude towards blended learning. Gender, subject category, locality, parental income and computer course had no significant effect on blended learning attitudes.

Keywords: Pupil teachers, Attitude, blended learning

Introduction

Accepting innovations to make the teaching-learning process effective is the need of the hour. Keeping in mind the aspirations and needs of the students, new technologies or ICT should be used in teacher education programs so that the quality of teaching-learning can also be ensured. Integration of ICT with traditional teaching can play an important role in making classroom interaction effective and interesting. This integration is called blended learning. Computer software, television, Internet, multimedia, smart classroom, virtual classroom and other mediums have been widely used as ICT in many fields including education. In recent

years, ICT has been introduced in the field of education (Pekarova and Biteljanova, 2011, Chen and Jones, 2007, Stiffler, 2008, Beller and Ritchie, 2002). It enables to creation of a teaching-learning environment that motivates students to learn as well as improves student learning achievement. The concept of blended learning includes various learning environments. Blended learning as a pedagogical approach provides a blend of integration of traditional and online learning (synchronous and asynchronous) tools. According to Garrison and Vaughn (2008), blended learning is the thoughtful fusion of face-to-face and online learning experiences. It is a blend of learning experiences that can enhance student learning achievement by utilizing the advantages of both learning environments. Blended learning is defined as a blend of digital learning tools and face-to-face traditional classroom teaching in the field of education (UGC, 2021). In a blended learning program, learners choose the best activities according to their pace, level, learning style, as well as time and place. This makes the learner more independent and self-reliant in their learning. Blended learning provides flexibility and convenience to students as a vital learning and teaching environment (Collis and Moonen, 2001). Such blended learning modes include face-to-face teaching, audiovisual presentation, brainstorming, virtual laboratories, debates, case studies, cooperative learning, demonstrations, peer group interaction, group discussions by exchanging ideas, projects, quizzes, team teaching, and many other activities.

All blended learning activities can be responsible for enhancing the learning outcome and performance of the learner. A study conducted by Al-Saei, Al-Kaabi, and Al-Muftah (2011) reported that there is no significant difference between the blended e-learning approach and the traditional face-to-face teaching approach in the gain scores of achievement tests. On the other hand, there is a significant difference between the instructional treatment approaches concerning the attitude scale in favor of the blended e-learning approach. Alseweed (2013), studies the achievement and attitude of university students towards implementing three different methods (traditional, blended, and virtual classes) in the teaching-learning process. Three groups (traditional, blended, and virtual) of 34 male students studying in the English language program at Qassim University were randomly divided. The results of the study show significant differences in blended learning among students. The study reflected the positive attitude of students towards blended learning and found that it is a better medium than traditional methods. In blended learning, it is easier to obtain information through multiple means.

Objective of the study

1. To study the attitude of pupil teachers towards blended learning.
2. To study the attitude of pupil teachers towards blended learning, regarding gender, subject, locality, and parents' income.

Hypotheses of the study

1. There is no significant difference in the mean scores of male and female pupil teacher's attitudes towards blended learning.
2. There is no significant difference in the mean scores of arts and science pupil teacher's attitudes towards blended learning.
3. There is no significant difference in the mean scores of urban and rural pupil teacher's attitudes towards blended learning.
4. There is no significant difference in attitude towards blended learning among student-teachers with parental monthly income above 10,000 and below 10,000.

Research Methodology

This study used a quantitative research methodology in which data was collected using a survey method. The present study was limited to B.Ed. students of all three campuses (Srinagar Campus, Tehri Campus, and Pauri Campus) of HNB Garhwal University. The entire population of 220 student teachers was invited for the study, out of which only 179 student teachers participated in the research study. A simple random sampling technique was applied for the selection of the sample from the population. Instruments and Techniques Used The instrument used in the research was a self-designed questionnaire consisting of 35 statements on the blended learning approach with a five-point rating scale.

The data collected from the attitude scale towards blended learning was evaluated on the basis of the criteria of satisfaction, resources, flexibility of learning, interaction, autonomy, and adaptability towards blended learning. Face validity and content validity were used to measure the validity of the research instrument and the internal consistency or reliability of the instrument was determined by Cronbach's alpha whose value was 0.88 indicating high reliability.

Data Analysis Procedure

Throughout the research, the following procedure was conducted:

1. Firstly, a scale on attitude towards blended learning was created in which items were determined based on the interests and mental level of the students.

2. For the sample, 179 student teachers were selected from all three campuses of HNBGU Garhwal University using a random sampling technique.
3. The Google Forms online platform was used to gather the feedback of students on their attitude towards blended learning.
4. Using Microsoft Excel for data analysis, which led to the conclusions of the study.

Analysis and interpretation

1. Demographic features of the pupil teachers

Table 1: Demographic features

Variable	Description	N	Percent (%)
Gender	Male	68	38%
	Female	111	62%
Subject	Arts	90	50%
	Science	89	50%
Locality	Urban	93	52%
	Rural	86	48%
Parental income	Above,10000	67	37%
	Less,10000	112	63%

Table 1 shows the demographic features of the research study where the number and percentage of pupil teachers are classified based on gender, subject category, locality, parental income, and computer course. The table shows that 179 student teachers participated in the study, out of which 68(38%) were male and 111(62%) were female. Out of the total 179 student teachers, 90 (50%) were from the arts stream and 89 (50%) were from the science stream. The location or locality of the pupil teachers was urban 93 (52%) and rural 86 (48%). The number of pupil teachers whose parents' income is more than 10000 is 67 (37%) and those whose parents' income is less than 10000 is 112 (63%).

2. Mean and SD of the pupil teachers' attitude towards blended learning in the total sample

Table 2:- Mean, SD, Skewness, and Kurtosis values of the pupil teachers' attitude towards blended learning.

Category	Variable	N	Mean	SD	Skewness	Kurtosis
Pupil-teacher	Attitude towards blended learning	179	128	13	0.08	-0.25

Table 2 shows that the level of receptiveness towards blended learning is found to be average among the entire sample. As per the mean and standard deviation, the scores are spread across units to a high degree. A Skewness of 0.08 being very close to 0 indicates the

symmetry of the distribution. Kurtosis of -0.25 indicates that the distribution is slightly flatter than a normal distribution with lighter tails. Overall, the distribution is quite close to normality with minor deviations in both skewness and kurtosis.

Hypothesis H0: There is no significant difference in mean scores of the attitude of pupil teachers towards Blended Learning concerning gender, stream, locality, and parent's income.

Table 3. Attitude towards Blended Learning concerning a) gender, b) subject, c) locality, and d) Parental income.

Variables	Description	N	Mean	SD	Df	t-value	p-value	sig
Gender	Male	68	128.3	13.1	177	0.51	0.61	NS
	Female	111	129.2	12.0				
Subject	Arts	90	128.3	11.9	177	0.57	0.57	NS
	Science	89	129.4	12.9				
Locality	Urban	93	129.8	10.7	177	1.06	0.29	NS
	Rural	86	127.8	14.0				
Parental income	Above,10000	67	128.0	13.3	177	1.14	0.26	NS
	Less,10000	112	130.2	10.7				

The above table 3 shows that the mean marks of female and male pupil teachers are 128.03 and 129.2 respectively with a standard deviation of 13.1 and 12.00. According to the statistical calculation, the t value ($t=0.51$) with $Df=177$ (0.61, $p<0.05$) is less than the table value. Hence, the null hypothesis "There is no significant difference in the mean scores of pupil teachers attitude towards blended learning about gender" is accepted.

The mean marks of arts stream and science stream pupil teachers are 128.03 and 129.4 respectively with a standard deviation of 11.9 and 12.9. According to the statistical calculation, the t value ($t=0.57$) with $Df=177$ (0.57, $p<0.05$) is less than the table value. Therefore, the null hypothesis "There is no significant difference in the mean scores of pupil teachers attitude towards blended learning about the subject" is accepted.

The mean scores of urban and rural pupil teachers are 129.8 and 127.8 respectively with a standard deviation of 10.7 and 14.0. According to statistical calculation, the t-value ($t=1.06$) with $Df=177$ (0.29, $p<0.05$) is less than the table value. Therefore, the null hypothesis "There is no significant difference in the mean scores of pupil teachers attitude towards blended learning about locality" is accepted.

The mean scores of pupil teachers of parents with parental income of more than 10000 and less than 10000 are 128.0 and 130.2 respectively with a standard deviation of 13.3 and 10.7. According to the statistical calculation, the t-value ($t=1.14$) with $Df=177$ (0.26,

$p < 0.05$) is less than the table value. Therefore, the null hypothesis "There is no significant difference in the mean scores of pupil teachers' attitude towards blended learning about parents' income." is accepted.

Conclusion

The findings of the present study indicate that student teachers have a positive attitude towards blended learning. The result shows that student teachers of HNB Garhwal University welcome the implementation of blended learning. Teachers and students need to be made more aware of the use of blended learning. The findings of Mazilewska (2007) confirm the present research, that students have a positive attitude towards blended learning, and the educational content of blended learning provides the teacher with the necessary platform for discussion and feedback. Digital technology should be adjusted with traditional teaching according to the needs of the students. The blended learning approach offers the potential to enhance learning outcomes, promote student satisfaction, and make educational content accessible to all students (Eshrateh and Siaz, 2017). The result of the study indicated that there was no significant difference in attitude towards blended learning based on gender (male and female), subject category (arts and science), locality (urban and rural), and parental income (more than 10000 and less than 10000). The findings of the current study are supported by several research studies, including Jayanthi and Tholappan (2016), Khan (2016), and Alsalahi, Eltahir, and Katawneh (2019), which found no significant difference in attitudes toward blended learning among prospective teachers concerning their subject category or locality. According to the study by Shazli Hassan Khan (2016) and Paritosh Mahato (2021), there was no significant difference in students' attitudes towards blended learning based on their locality (rural-urban). Mahato, Behera, and Ansari (2021) found that there was no significant difference in attitudes towards blended learning between male and female PG students, possibly because male and female students are almost equally enthusiastic and both have access to mobile devices. The study also found that stream-wise PG students have different attitudes towards blended learning. The results presented may help in implementing blended learning approaches in the future. Therefore, apart from the availability of a blended learning environment, no other special changes are required in the overall educational environment.

Suggestions and Recommendations

Universities and departments need to adopt blended learning models to make the teaching-learning process interesting and effective for students. The implementation of the blended learning environment in higher education institutions is still in the developing stage. Blended learning requires institutions to provide infrastructure, and technical training to teachers, and ensure students' access to educational resources. In the future, more research is needed on this topic for better implementation of blended learning. For further study, the sample size should be expanded to find out the attitude of a larger number of people towards blended learning. To make this study comprehensive, it should be conducted on both secondary-level and higher-level students and teachers.

Acknowledgment

I am grateful to Prof. Geeta Khanduri, Department of Education at the Birla campus of HNB Garhwal University, for all of his assistance and support in completing this study.

Reference

- Ahmad, A., et al. (2011). *Effect of a blended e-learning environment on students' achievement and attitudes toward using e-learning in teaching and learning at the university level*. International Journal for Research in Education, 29.
- Aladwan, F., A., et al. (2018). *Students' attitudes toward blended learning among students of the University of Jordan*. Modern Applied Science, 12(12), 217-227. <https://doi.org/10.5539/mas.v12n12p217>
- Alseweed, M. A. (2013). *Students' achievement and attitudes toward using traditional learning, blended learning, and virtual classes in teaching and learning at the university level*. Studies in Literature and Language, 6(1), 65-73.
- Alsalthi, N. R., Eltahir, M. E., and Al-Qatawneh, S. S. (2019). *The effect of blended learning on the achievement of ninth-grade students in science and their attitudes towards its use*. Heliyon, 5(9), e02424.
- Baylor, A. L., & Ritchie, D. (2002). *What factors facilitate teacher skill, teacher morale, and perceived student learning in technology-using classrooms?* Computers & Education, 39(4), 395-414.
- Chen, C. C., & Jones, K. T. (2007). *Blended learning vs. traditional classroom settings: Assessing effectiveness and student perceptions in an MBA accounting course*. The Journal of Educators Online, 4(1), 1-15.
- Collis, B., & Moonen, J. (2001). *Flexible learning in a digital world: Experiences and expectations*. London: Kogan-Page.
- Eshreteh, M. K. M., & Sijaj, A. H. (2017). *Attitudes of English-major students and teachers towards using blended learning in the English department at Hebron University*. International Journal of Research in English Education, 2(4), 51-65.
- Garrison, D. & Vaughan, Norman. (2008). *Blended Learning in Higher Education: Framework, Principles, and Guidelines*. 10.1002/9781118269558.

- Jayanthi, D. & Tholappan, A. (2016). *Awareness and Perception Of Blended Learning Among B.Ed. Trainees At Tiruchirappalli District. National Conference on Higher Education in the Knowledge Age: Techno-Pedagogical Perspectives and Innovations*, pp. 8-12.
- Khan, S. H. (2016). *Attitude of prospective teachers towards blended learning technology: A Normative Approach. International Journal of English Language, Literature and Humanities*, 4(6), pp. 194-203.
- Mahato, P., et al. (2021). *The attitude of postgraduate students towards blended learning*.
- Mezileveska, I. (2007). *Transnational education programs: Student reflections on a fully online versus a hybrid model*. Victoria University.
- Pekarova, I., & Bitljanova, V. (2011). *Integrating e-learning in classroom-based language teaching at the Technical University of Liberec, Czech Republic*. International Conference "ICT for Language Learning" 4th edition. Retrieved from http://www.pixel-online.net/ICT4LL2011/common/download/Paper_pdf/IEC09-131-FPBitljanova-ICT4LL2011.pdf
- Paritosh, M. et al.,. (2021). *Postgraduate students' perceptions of blended learning*
- Shazli Hasan Khan. (2016). *Prospective teachers' attitudes towards blended learning technology: A normative approach. Journal of English Literature and Humanities*, 4(6), 194–203
- Stiffler, D. J. (2008). *A comparison of web-enhanced vs. traditional classroom teaching in women's health nurse practitioner education*. Topics in Advanced Practice Nursing e-Journal, NONPF Educator's Forum. Retrieved from <http://www.medscape.com/viewarticle/580315>
- University Grants Commission (UGC). (2021). *Blended mode of teaching and learning: Concept note*. University Grants Commission, New Delhi.