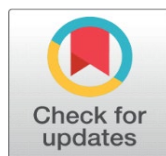
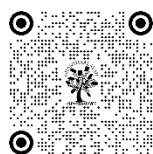


STUDENTS' APPROACH TOWARDS BLENDED LEARNING: A COMPARATIVE ANALYSIS

Suvashree Roy Chowdhury

¹ Assistant Professor, Department of education, Barrackpore Rastraguru Surendranath College, West Bengal, India



DOI

[10.29121/shodhkosh.v5.i6.2024.2541](https://doi.org/10.29121/shodhkosh.v5.i6.2024.2541)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](#).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



ABSTRACT

Blended learning is a novel concept that supports both the offline and online learning. This system of learning amalgamates the traditional method and ICT (Information and Communication) teaching and learning. This mode of teaching and learning espouses both the chalk and blackboard method of disbursing knowledge as well as computers and virtual platforms. Blended learning is a well-established and versatile educational approach. This mode of learning and teaching combines traditional in-person learning with online components. It includes both face-to-face classroom sessions and supplements these with online learning materials. This combination enhances learner engagement across a spectrum of learning styles (Claned, 2023). This present study targets to find out undergraduates' approach towards blended learning. Some demographics have also been undertaken. Objective: The study objectives was to find out significant differences among undergraduates in relation to certain demographic aspects. Hypotheses: as per the objective Null hypotheses were prepared. Research Design: The study followed a descriptive survey research design. Statistics: As per suitability both inferential and descriptive statistics were applied. Result: A gender difference was noticed in terms of approach towards blended learning. However, result outcome also revealed other aspects of approach towards blended learning. Inferences could be drawn about the attitude of the undergraduates from other statistical result outcome in this study.

Keywords: Blended learning; Undergraduates; Approach

1. INTRODUCTION

Students pertaining to different level of formal education have been found to inclined towards blended mode of learning. Especially, at the undergraduate level/ tertiary level of education blended mode of learning have come into play a very prominent role. This method of teaching and learning came into vogue ever since the outbreak of Covid-19. However, this mode of teaching and learning was found to be a boon in keeping the education running steadily. The education sector was benefitted tremendously. The Indian Government acted vehemently to keep the education system functioning. The University Grant Commission (UGC) viewed Blended Learning as, "...blended learning environment, both the student and the teacher should be physically located in the same space. Despite this, the digital tools used should be able to be utilised by the students to enforce some control over the speed or topics of their learning...." This mode of learning was found to bring in more flexibility in education. It was found to benefit the students and the teachers/educators. It was stated to be good for the both the learning sector and the teaching sector therefore befitting

"best of the worlds". As per the UGC, blended mode of learning would propagate the following: - Increased student engagement in learning; Enhanced teacher and student interaction; Responsibility for learning; Time management and flexibility; Improved student learning outcomes; Enhanced institutional reputation; More flexible teaching and learning environment; More amenable for self and continuous learning; Better opportunities for experiential learning.

2. REVIEW OF RELATED LITERATURE

The effectiveness of blended mode of education was well appreciated by Ughade and Badre (2020). The researchers recognised the fact that blended mode of learning was well accepted by the students at the higher education level. Their survey on students' comfortability regarding blended form of learning was well specified. Teaching and learning through Information and Communication Technology (ICT) have been engaging and intriguing form of learning for both the teachers and students. Even though on several ICT platforms there might be face less interaction between the learner and the learned, this form of education is still gaining steady ground. Technological support in education was identified by Ingle (2019). Time constrictions due to several personal, professional and academic engagements sometimes appears as hindrances for acquiring knowledge. However, this has been mitigated by ICT based learning largely. For both the teachers and students blended mode of disbursing and receiving of information have proved beneficial. This form of learning enhances flexibility of time and energy. Furthermore, in professional education sector, blended form of learning has also shown steady acceptance. Students from engineering backgrounds have responded well to this kind of learning (Gullur, 2022). Basatas and Akcil (2020) found in their survey that students did have a positive attitude for digital online learning. To educate and attract the learners blended learning an excellent platform. Along with its advantages like online educational material deliverance as well as live classroom interaction on a virtual platform it also helps to personalise learning (Watson, 2012). Another study explicated the fact blended learning dismantles the traditional teaching-learning method and enhances collaborative learning and reduces the stress of students. This mode of learning helps the students to fetch information at their ease, have platform for virtual interaction with their teachers and mentors. Besides, there are various ways where the students are susceptible to lesser errors in their academic work, therefore reducing stress. (Wong et al. 2014). Blended learning assists students to keep in touch with their teachers. According to one's convenience the students keep a hold on their work in complete synchronisation. The fear of missing out on important information is meagre in blended learning system. As per Liu et al. (2016) students hailing from STEM field of study were found to be more benefitted by the blended learning teaching and learning system. There have been several other studies on the effectiveness of blended learning. As per Kundu (2018), even elementary level of education could be improvised via blended learning system. It could engage students with various materials online and keep them attached to the teaching learning activities. This kind of learning and teaching system could various problems if well inducted and utilised in the education system of the country. It was also noticed that students' academic achievement was found to be much higher when blended learning was introduced to them Kundu (2018).

Despite several positive aspects of the Blended Learning system, there have been some controversies that have propelled researchers to find out the loopholes of the same. The present study targets to find out the significant differences among students on Blended Learning.

3. OBJECTIVES

The target of the present study was to have a survey on the undergraduate students on their attitude towards blended learning. Therefore, the objectives in this study were to:

1. Find out significant difference in approach towards blended learning between male and female undergraduate students.
2. Find out significant difference in approach towards blended learning between social science and science undergraduate students.
3. Find out significant difference in approach towards blended learning between undergraduate students coming from Vernacular Medium and English Medium schooling background.

4. HYPOTHESES

As per the objectives set for this study, Null hypotheses were formulated as:

1. H_{01} : There is no significant difference in approach towards blended learning between male and female undergraduate students.

2. H₀₂: There is no significant difference in approach towards blended learning between social science and science undergraduate students.
3. H₀₃: There is no significant difference in approach towards blended learning between undergraduate students coming from Vernacular Medium and English Medium schooling background.

5. METHOD

5.1 RESEARCH DESIGN

Research design was defined as the plans and the procedures for research. It also provides detailed methods of data collection and describes analysis (Cresswell, 2009). According to Best and Kahn (2007) Descriptive Survey research that aim to describe and interpret object appropriately as per the respective situation. Therefore, to understand the attitude or the mindset of the students about blended learning method and describe the same through the statistical computation, descriptive survey method was thought to be appropriate.

Variables used in the survey were demographic variables and dependent variables. Here demographic or independent variables were: - Gender; Stream of Study; and Medium of Schooling of the Undergraduate Students (US). In this study the dependent variable was the attitude or the vantage point on blended learning of the undergraduate students. Find the blueprint in the following table:

Table 1: Variables and their descriptions

Variables	Abbreviations
• Level of tertiary Education	
Male Undergraduate Students	MUS
Female Undergraduate Students	FUS
• Stream of Formal Education	
Social Science Undergraduate Students	SSUS
Science Undergraduate students	SUS
Types of School attended	
Undergraduate Students who attended Vernacular schools	USVS
Undergraduate students who attended English Medium School	USES

5.2 TOOL

A standardized questionnaire developed by Aristovnik, Kerzic, Tomazevic and Umek (2016). They had included one hundred and seventy (n=170) students from science and humanities background. The questionnaire contained 13 items in statement form. The students were asked to put their response on expressed their opinion regarding the statements on a 7-point Likert scale that ranged from answer option of “totally disagree” to “totally agree”. The weightage of each option was provided as, “totally disagree= 1” and “totally agree= 7”. The tool was well constructed and contained features of clarity, unambiguous items, simple language, easy response options, and time effective i.e. each items needed minimum time to be answered with quality of understandability. Therefore, a standardized tool was formed to be later administered or used in future research in the related fields.

5.3 DATA COLLECTION

Simple Random probability sampling method was used to collect response from respondents which consisted of one hundred and thirty students (n=130) from the tertiary level of education. Simple random sampling is an appropriate approach for fetching randomly chosen participants. Besides, this kind of sampling completely erases the effects of biasness.

5.4 SAMPLE

The participants of this study consisted of undergraduate students studying in different colleges situated in the state of West Bengal, India. The participants were requested to volunteer in providing their responses in the questionnaire provided to them in two languages (English and Bengali). This was because the original questionnaire is in English, but Bengali is the predominant language in the state. Ethical measures were considered before administering the questionnaires to the participants. The sample size was kept to one hundred and thirty (n=130).

5.5 STATISTICAL ANALYSIS

For the processing of data both differential and inferential statistics was used implemented. Inferential statistics enables to extract the necessary descriptions of data. Fundamentally the inferential statistics helps in understanding the characteristics of the data collected for a particular study survey. Whereas descriptive statistics and on the other hand differential statistics was used are for comparing the differences between the treatment groups undertaken in a particular study.

5.6 RELIABILITY AND VALIDITY

Since Reliability is about the internal consistency of a tool's items. It is a measure of assessing the authenticity of a tool. Whereas validity is about the accuracy of a measure (Middle, 2022)

• RELIABILITY

Cronbach alpha, a (or coefficient alpha) reliability test was developed by Lee Cronbach in 1951. Reliability describes the internal consistency of the scale. Reliability is another name for consistency. Cronbach alpha Reliability test is suited for Likert type scale. This helps in testifying the surveys taken with this type of Scale are *reliable* or *not*.

• VALIDITY

The concept of validity was formulated by Kelly (1927) who stated that a test is "Valid measures what it claims to measure". Therefore, Content validity was employed to check the items used in the survey scale items was appropriate, well- grounded, reasonable and sound.

6. ANALYSIS

The following table projects the statistical outcome. As per the Null hypotheses set for the study, the data collected was put under statistical computation

Table 2 : Display of the significant differences among the variables.

Variables	N	Mean	SD	t-test	Significance
• Gender					
MUS	57	0.50	0.15	1.76	0.045*
FUS	73	0.47	0.11		
• Stream of Study					
SSUS	60	0.51	0.14	1.97	0.064
SUS	70	0.45	0.02		
• Type of schooling					
USVS	63	0.50	0.14	1.77	0.075
USES	67	0.46	0.12		

***The significant differences observed in the result outcome was considered at 0.05 level of significance.**

The above table portrays a marked significant difference among undergraduate male and female students. Here, $p = 0.045$ which is a value less than 0.05 level of significance. There is a 95% probability that the results indicated true difference between groups being compared. However, no significant difference was observed among the other group of variables.

As per the result the outcome, the **refutation** or the **acceptance** of the Null hypotheses are as:

1. H_{01} : There is no significant difference in approach towards blended learning between male and female undergraduate students: **Refuted**
2. H_{02} : There is no significant difference in approach towards blended learning between social science and science undergraduate students.: **Accepted**
3. H_{03} : There is no significant difference in approach towards blended learning between undergraduate students coming from Vernacular Medium and English Medium schooling background: **Accepted**

7. CONCLUSION

The result outcome triggers questions on the differences of mind set between among students based on gender. A study based on computer usage and technology implementation in learning purpose showed that female undergraduate students had significantly lower confidence than males undergraduate when it came computers use and its application (Shashaani and Khalili, 2001). Females also reported feeling of stress, helplessness. They reported of being nervous and

uncomfortable with computers. Considering the above study report, it could be inferred that since blended mode of learning involves computers and technological application some female students might show aversion towards it especially if they are not well trained or if they do not have any propensity for learning through blended mode. Nevertheless, the study also showed that medium of schooling or stream of study do not really matter when comes to use blended learning as a mode of learning.

In the coming years blended learning is going to be more popular. It will be more extensively used across every level of education. Since Blended learning provides more individualised and self-directed learning experiences, it is bound to improve on its features and bring in innovative ways to help students. The full time and well as distance education students would be highly benefitted through more evolved blended learning. Blended learning is supposed to bring in more productivity and academic efficiency among students.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

- Akcil, U. & M. Bastas, M. (2020). Examination of university students' attitudes towards e-learning during the COVID-19 pandemic process and the relationship of digital citizenship *Contemporary Educational Technology*, 13 (1) 291-295
- Best, J.W. & Kahn, J.V. (2007). *Research in Education*. New Delhi: Prentice-Hall of India
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage Publications, Inc
- Gullur, M. (2022). Impact of Blended Learning on Engineering Students in Indian Context. *International Journal of English Language Teaching*, (10)4, 13-19.
- Shashaani, L., & Khalili, A. (2001). Gender and computers: similarities and differences in Iranian college students' attitudes toward computers. *Computers & Education*, 37 (3-4), 41-51.
- Thorne, K. (2003). *Blended learning: how to integrate online and traditional learning*. London: Ans Sterling.
- Ughade, P., & Badre, S. (2020). Blended Learning - A Study on Student's Perception about Suitability of the Framework for Higher Education. *The Online Journal of Distance Educational and e Learning*, 8(2).
- Watson, J. (n.d.). Blending learning: The convergence of online and face-to-face education. Retrieved August 31, 2012 from <http://www.inacol.org>: http://www.inacol.org/research/promisingpractices/NACOL_PP-BlendedLearning-lr.pdf
- <https://claned.com/hybrid-learning-vs-blended-learning/>
- https://www.ugc.gov.in/pdfnews/6100340_Concept-Note-Blended-Mode-of-Teaching-and-Learning.pdf
- https://www.researchgate.net/publication/262889822_A_framework_for_investigating_blended_learning_effectiveness
- <https://www.learntechlib.org/primary/p/180971/>