



A STUDY OF ATTITUDE OF COLLEGE STUDENTS TOWARDS ADOPTING BLENDED LEARNING APPROACH FOR THEIR LEARNING

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Abstract:

The use of technology in education has an important role and it should be applied in the learning system. On the other hand, there is still a learning process which is done by emphasizing the method of lecturing and memorizing. Blended learning is the combination of traditional (face-to-face) and online learning so that instruction occurs both in the classroom and online. The teaching and learning environment are embracing a number of innovations and some of these involve the use of technology through blended learning. This innovative pedagogical approach has been embraced rapidly though it goes through a process. The present study reflected that owning a personal laptop/tablet affected college students' attitude towards adopting blended learning approach for their learning. Also, students owning a personal laptop showed a higher attitude towards technology and online dimension of blended learning.

Keywords: *Blended Learning, college students, technology, online interaction*

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Introduction

Transformation in teaching-learning pedagogy in education has been noted as a revolutionary movement within the sphere of Education which is aimed to meet the needs of the 21st century for surviving. During this movement, the Educational Institutions have realized the importance and urgency of integrating information technologies into the formal learning setting. Today, existing learning systems are primarily focused on the completion of courses and content. Thus, for years, it has been recommended to support individual learning as well as collective learning by using various online learning systems (Gasland, 2011). Contemporary education with global development has to go hand in hand in various domains of human activity. Information and communication technologies (ICT) spread across almost all segments of modern society and has not left any field untouched. A relatively new approach of learning and teaching has been invented from the influence of ICT on education. This is known as blended learning which is defined as a combination of face-to-face and online learning (Tayebinik and Puteh, 2012).

According to Garrison D.R. and Vaughan N.D., (2008) Blended Learning helps in addressing the issue of quality of teaching and learning which has been a topic of concern over decades. This quality is reflected at the level of commitment and motivation shown by learners during the formal learning process. Internet technology provides a



base to the learning process through online learning also, termed as e-learning (Horton, 2002). E-learning helps in ensuring flexibility and efficiency which is lacking in the classroom environment. It provides a flexible approach to the student to learn everywhere and at any time. Moreover, the fact cannot be denied that learning cannot rely only on technology but also involves a process where there is interaction between teachers, students and learning resources (Bersin, 2004). There are several advantages of e-learning but the limitation of the online learning environment cannot be ignored. Learning in the classroom cannot be replaced by technology wholly. Face to face learning helps in enhancing social interaction which is the core for learning to take place. In other words, face-to-face processes are equally important and should not be left behind in learning (Yapici and Akbayin, 2011; Sukmadinata, 2007; Bonk and Graham, 2004). The two major instructional models that are the online and traditional (face to face) model have both, several advantages and disadvantages. It is better for the teacher to integrate these two teaching models in the teaching and learning process (Chen and Jones, 2007; Akkoyunlu and Soylu, 2008). This is also termed as blended learning.

Blended Learning aims at using ultra modern technology in teaching without abandoning the usual educational situation and classroom attendance. It focuses on direct interaction in the classroom with students through the use of modern communication mechanisms, which include computers, networks and internet portals for efficient and effective communication. So and Brush (2008) established that the social presence offered in the blended learning environment encourages questions thus providing a medium through which clarifications of doubts and queries can be made in a timely and efficient manner enabling effective learning. Such learning helps in organizing information, developing attitudes and educational experiences that are provided through multimedia for the learners offered by information technologies. This type of learning helps in reducing time, effort and obviously cost, through the delivery of information and content to the learners as fast as possible and in a way that enables management and control of the educational process, the measurement and evaluation of learners' performance and the improvement of the overall level of educational attainment while providing an attractive learning environment (Shomali, 2007).

Recently, after the COVID-19 pandemic the use of blended learning as an approach has increased especially in schools and colleges. This study tried to determine the attitude of school and junior college students towards a blended learning approach as new teaching-learning pedagogy.

Review of Literature

The use of web technology is inevitable for both teachers and learners. Learners who were born in the last twenty years in first world countries are also known as 'digital natives' (Kivunja, 2014). Because of the integration of technology into their lives, digital natives are thought to be adaptive users of technology. Thus, online teaching needs to be incorporated by teachers pedagogically. In turn, learners need to get enough skills that will enable them to effectively take advantage of e-learning (Fresh Science News, 2015). Over the past 15 years, an increasing number of courses in the health sciences, as well as courses across colleges and universities, have incorporated online course components. These range from fully online courses to courses that are primarily face-to-face with very minor online elements. Of particular interest are courses that adopt a blended learning design, where some course elements are conducted in a traditional classroom setting while other course elements are delivered online



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(Graham et al., n.d.). Blended learning involves a combination of online and face-to-face course components, with the notion being that the elements work together as a single, integrated course [Osguthorpe and Graham,2003; Garrison and Vaughan, 2008]

Kenney and Newcombe (2011) did their comparison to establish effectiveness in view of grades and found that blended learning had higher average score than the non-blended learning environment. Garrison and Kanuka (2004) examined the transformative potential of blended learning and reported an increase in course completion rates, improved retention and increased student satisfaction. Comparisons between blended learning environments have been done to establish the disparity between academic achievement, grade dispersions and gender performance differences and no significant differences were found between the groups (Demirkol and Kazu, 2014). However, blended learning effectiveness may be dependent on many other factors and among them student characteristics, design features and learning outcomes. Research shows that the failure of learners to continue their online education in some cases has been due to family support or increased workload leading to learner dropout (Park and Choi, 2009) as well as little time for study. Additionally, it is dependent on learner interactions with instructors since failure to continue with online learning is attributed to this. In Greer, Hudson and Paugh's study as cited in Park and Choi (2009), family and peer support for learners is important for success in online and face-to-face learning. Support is needed for learners from all areas in web-based courses and this may be from family, friends, co-workers as well as peers in class. Greer, Hudson and Paugh further noted that peer encouragement assisted new learners in computer use and applications. The authors also show that learners need time budgeting, appropriate technology tools and support from friends and family in web-based courses. Peer support is required by learners who have no or little knowledge of technology, especially computers, to help them overcome fears. Park and Choi, (2009) showed that organizational support significantly predicts learners' stay and success in online courses because employers at times are willing to reduce learners' workload during study as well as supervisors showing that they are interested in job-related learning for employees to advance and improve their skills.

However, blended learning effectiveness may be dependent on many other factors and among them student characteristics, design features and learning outcomes. Research shows that the failure of learners to continue their online education in some cases has been due to family support or increased workload leading to learner dropout (Park and Choi, 2009) as well as little time for study. Additionally, it is dependent on learner interactions with instructors since failure to continue with online learning is attributed to this. In Greer, Hudson and Paugh's study as cited in Park and Choi (2009), family and peer support for learners is important for success in online and face-to-face learning. Support is needed for learners from all areas in web-based courses and this may be from family, friends, co-workers as well as peers in class. Greer, Hudson and Paugh further noted that peer encouragement assisted new learners in computer use and applications. The authors also show that learners need time budgeting, appropriate technology tools and support from friends and family in web-based courses. Peer support is required by learners who have no or little knowledge of technology, especially computers, to help them overcome fears. Park and Choi, (2009) showed that organizational support significantly predicts learners' stay and success in online courses because employers at times are willing to reduce learners' workload during study as well as supervisors showing that they are interested in job-related learning for employees to advance and improve their skills.



Studies predict that student characteristics such as gender play important roles in academic achievement (Oxford Group, 2013), but no study examines performance of male and female as an important factor in blended learning effectiveness. It has again been pointed out that the success of E learning and blended learning is highly dependent on personal experience or hands on training in internet and computer applications (Picciano and Seaman, 2007). Learner attitudes to blended learning can result in its effectiveness and these shape behavioural intentions which usually lead to persistence in a learning environment, blended inclusiveness. Selim, (2007) noted that the learners' attitude towards E-learning and blended learning are success factors for these learning environments.

In addition, Susan and Chris (2015) point out that the most salient benefits of blended learning are: it is more effective in its use of classroom time, students are more active, students will be more creative, students are better prepared, it is more interesting for students, and it provides the possibility of offering many educational resources for students. Further Bersin and Associates (2003) suggest that the best way to implement blended learning correctly is to choose the right component or media package that will deliver the highest efficiency at the lowest possible cost.

Statement of the Problem

A Study Attitude of College Students towards Adopting a Blended Learning Approach for their Learning.

Scope and Delimitations of the Study

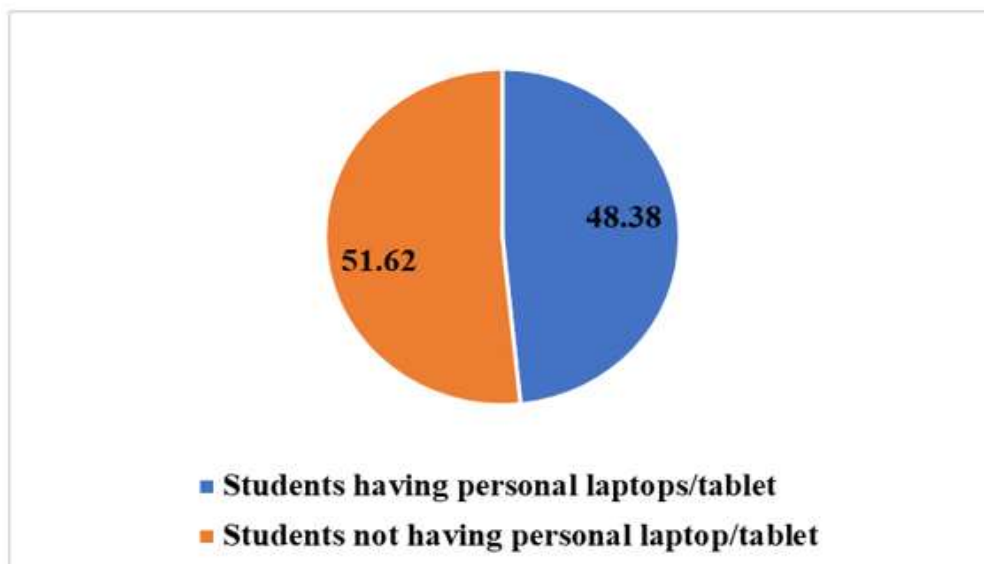
In the present study the data was collected from Junior college and degree college Students. This data does not include school students. This data does not include teachers, principal's and parents' perspectives. The present study only focused on English medium colleges. Other vernacular medium colleges like Marathi, Hindi, Gujarati, etc were not considered. Students who own a personal laptop / tablet and those who do not own were considered for the present study. Other factors like gender, age, type of college, prior experience and knowledge, etc were not considered.

Methodology and Sample of the Present Study

A descriptive survey method was used for the present study. The sample was collected using convenience sampling. The questionnaire for the present study was adapted from a study by Birbal et al. (2018) on learners' readiness for BL. The instrument consisted of 34 items that measured learners' attitudes towards six different aspects of BL: learning flexibility (four items); online learning (eight items); study management (six items); technology (four items); classroom learning (five items); and online interaction (seven items). Learning flexibility reflected issues such as access to learning materials and freedom to decide where and when to study and at what pace. Online learning included items on how comfortable teachers felt about self-directed learning. Study management refers to how motivated teachers are to organize their time when studying online for their courses. Technology consisted of items that reflected teachers' familiarity with digital technologies and software. Online interaction refers to teachers' ability to use web technologies to collaborate with other members of the learning community for assignments and to interact with the lecturer. Classroom learning focused on teachers' preferences for face-to-face interaction with other teachers and the lecturer during training programs and conferences, seminars, or symposia. Table 1.1 represents the sample for the study.

Table 1.1: Sample Size for Present Study

	N	Percentage
Students having personal laptops/tablet	75	48.38
Students not having personal laptop/tablet	80	51.62


Figure 1.1.: Sample Size for the Present Study

The total Sample consisted of 155 students out of which 51.62% of them did not have their personal laptops/tablets and 48.38% had their own laptop/tablets.

Hypothesis Testing and Interpretation

1. There is no significant difference in the attitude of college students towards adopting a blended learning approach for their learning.
2. There is no significant difference in the attitude of college students towards adopting a blended learning approach for their learning based on the following dimensions:
 - learning flexibility
 - online learning
 - study management
 - Technology
 - classroom learning



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- online interaction.
3. There is no significant difference in the attitude of college students who own a personal laptop/ tablet towards adopting a blended learning approach for their learning.
 4. There is no significant difference in the attitude of college students who do not own a personal laptop/ tablet towards adopting a blended learning approach for their learning.
 5. There is no significant difference in the attitude of college students who own and who do not own a personal laptop/ tablet towards adopting a blended learning approach for their learning.
 6. There is no significant difference in the attitude of college students who own and who do not own a personal laptop/ tablet towards adopting a blended learning approach for their learning based on the following dimensions:
 - learning flexibility
 - online learning
 - study management
 - Technology
 - classroom learning
 - online interaction.

Table 1.2: Relevant Descriptive Statistics

	N	Mean	Median	Mode	S. D	Skewness	Kurtosis
College going students towards BL	155	126.86	129	139	21.72	-0.90	1.26
College going students towards learning flexibility	155	15.821	16	16	3.23	-1.11	1.36
College going students towards online learning	155	32.09	32	34	6.35	0.02	-0.15
College going students towards study management	155	15.05	15	16	4.04	0.08	-0.26
College going students towards Technology	155	14.25	16	16	4.12	-0.77	-0.02



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College going students towards classroom learning	155	19.36	21	20	4.68	-1.12	0.75
College going students towards online interaction.	155	30.29	31	27	7.47	-0.54	-0.003
Students owning a personal laptop/ tablet	75	130.46	134	139	16.13	-1.23	2.39
Students not owning a personal laptop/ tablet	80	123.48	127	107	25.54	-0.56	0.34

Hypothesis 1, 2, 3 and 4 were tested using descriptive analysis

Hypothesis 1: The mean, median, mode and standard deviation value for college going students was found to be 126.86, 129, 139 and 21.72 respectively. Skewness was negative and was found to be -0.90. Kurtosis was found to be 1.26, which is positive. Hence the data is leptokurtic by nature.

Hypothesis 2: The mean, median, mode and standard deviation value for College going students towards learning flexibility was found to be 15.82, 16, 16 and 3.23 respectively. Skewness was negative and was found to be -1.11. Kurtosis was found to be 1.36, which is positive. Hence the data is leptokurtic by nature.

The mean, median, mode and standard deviation value for College going students towards online learning was found to be 32.09, 323, 34 and 6.35 respectively. Skewness was positive and was found to be 0.02. Kurtosis was found to be -0.15, which is negative. Hence the data is platykurtic by nature.

The mean, median, mode and standard deviation value for College going students towards Study management was found to be 15.05, 15, 16 and 4.04 respectively. Skewness was positive and was found to be 0.08. Kurtosis was found to be -0.26, which is negative. Hence the data is platykurtic by nature.

The mean, median, mode and standard deviation value for College going students towards technology was found to be 14.25, 16, 16 and 4.12 respectively. Skewness was negative and was found to be -0.77. Kurtosis was found to be -0.02, which is negative. Hence the data is platykurtic by nature.

The mean, median, mode and standard deviation value for College going students towards classroom learning was found to be 19.36, 21, 20 and 4.68 respectively. Skewness was negative and was found to be -1.12. Kurtosis was found to be 0.75, which is positive. Hence the data is leptokurtic by nature.

The mean, median, mode and standard deviation value for College going students towards online interaction was found to be 30.29, 31, 27 and 7.47 respectively. Skewness was negative and was found to be -0.54. Kurtosis was found to be -0.003, which is negative. Hence the data is platykurtic by nature.

Hypothesis 3: The mean, median, mode and standard deviation value for Students owning a personal laptop/ tablet was found to be 130.46, 134, 139 and 16.13 respectively. Skewness was negative and was found to be -1.23.



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Kurtosis was found to be 2.39, which is positive. Hence, the data is leptokurtic by nature.

Hypothesis 4: The mean, median, mode and standard deviation value for Students not owning a personal laptop/ tablet was found to be 123.48,127,107 and 25.54 respectively. Skewness was negative and was found to be -0.56. Kurtosis was found to be 0.34, which is positive. Hence, the data is leptokurtic by nature.

Table 1.3: Relevant Inferential Statistics

	No	Mean	t value	p value	LoS
Students owning a personal laptop/ tablet towards BL	75	130.46	2.02	0.045	S
Students not owning a personal laptop/ tablet towards BL	80	123.48			
Students owning a personal laptop/ tablet towards learning flexibility	75	16.12	1.12	0.26	NS
Students not owning a personal laptop/ tablet towards learning flexibility	80	15.53			
Students owning a personal laptop/ tablet towards online learning	75	32.85	1.45	0.15	NS
Students not owning a personal laptop/ tablet towards online learning	80	31.37			
Students owning a personal laptop/ tablet towards study management	75	15.68	1.89	0.06	NS
Students not owning a personal laptop/ tablet towards study management	80	14.46			
Students owning a personal laptop/ tablet towards technology	75	15.41	3.52	0.0005	S
Students not owning a personal laptop/ tablet towards technology	80	13.16			
Students owning a personal laptop/ tablet towards classroom learning	75	18.93	1.1	0.27	NS



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Students not owning a personal laptop/ tablet towards classroom learning	80	19.76			
Students owning a personal laptop/ tablet towards online interaction	75	31.47	1.91	0.05	S
Students not owning a personal laptop/ tablet towards online interaction	80	29.19			

Hypothesis 5 and 6 were tested using inferential analysis.

Hypothesis 5: The t value for students having and not having their personal laptop towards adopting blended learning was found to be 2.02 and p value was found to be 0.04 which is less than 0.05. Therefore, the null hypothesis is rejected. There is a significant difference in the attitude of college students who own and who do not own a personal laptop/ tablet towards adopting a blended learning approach for their learning. The mean score of students owning a laptop/ tablet was found to be 130.46 and those who do not own was found to be 123.48. The mean score of students having a laptop/tablet is greater than those who do not have, which indicates their higher attitude towards adopting a blended learning approach for their learning.

Hypothesis 6: The t value for students having and not having their personal laptop towards learning flexibility, online learning, study management and classroom learning was found to be 1.12, 1.45, 1.89 and 1.1 respectively. The p values for learning flexibility, online learning, study management and classroom learning were found to be 0.26, 0.15, 0.06 and 0.27 respectively which is greater than 0.05. Thus the null hypothesis is accepted as far as learning flexibility, online learning, study management and classroom learning dimensions of blended learning were considered. Therefore, students owning a laptop/tablet and those who do not have one do not differ in adopting a blended learning approach for their learning as far as learning flexibility, online learning, study management and classroom learning dimensions are considered.

The t value for students having and not having their personal laptop towards technology and online interaction was found to be 3.52 and 1.91 respectively. The p value for technology and online interaction was found to be 0.005 and 0.05 respectively which is less than 0.05, thus it is significant. Thus the null hypothesis is rejected as far as technology and online interaction dimension of blended learning were considered. The mean score for students owning a personal laptop/tablet on technology dimension was found to be 15.41 and for those not having was found to be 13.16. The mean score of students having a personal laptop/tablet is greater than that of those not having. Therefore, students having a personal laptop/tablet have a higher attitude towards technology dimension as compared to those who do not have one. The mean score for students owning a personal laptop/tablet on online interaction dimension was found to be 31.47 and for those not having was found to be 29.19. The mean score of students having a personal laptop/tablet is greater than that of those not having. Therefore, students having a



personal laptop/tablet have a higher attitude towards online interaction dimension as compared to those who do not have one.

Discussion and Conclusion

Online-offline mode of learning is a modern educational strategy that has replaced e-learning gradually in most educational institutions, even in India. The blended online learning strategy is deemed to be the most practical method to adapt for teaching-learning pedagogy as it combines the advantages of synchronous and asynchronous strategies and nullifies their disadvantages.. The main aim of choosing the blended strategy for teaching-learning process is to increase the student's participation in their own learning rather than passively sitting during a synchronous discussion. Blended-learning approaches are now widely used in Indian education systems. Most schools and colleges have attempted to use this innovative learning approach to interact with students as well as to deliver education resources to them effectively. Thus, the present study was conducted in order to understand the attitude of college students towards adopting this approach for their learning.

The study reflected that owning a laptop is mandatory in order to enhance a positive attitude among students towards adopting BL approach for their learning. Although we are in the era where technological instruments and apparatus are available within reach, there are many of them who do not have one. Thus it affects their attitude towards adopting the blended learning approach towards their learning with respect to these two main dimensions that is Technology and online interaction. Students who have their own personal laptop or tablets can have more time to access technology, explore new softwares and content material that is available to them anytime, anywhere as compared to those who do not have one. Those students who do not have a laptop also face a communication gap while using technology that is online interaction. Owning a personal laptop can help students communicate with others through various applications in order to clarify their doubts. Whereas students who do not have their own Laptop suffer because of this, this could be the probable reason that they have a lower attitude towards these two dimensions as compared to those who are having their personal laptops.

The perspective of students and teachers using modern education technologies as a blended-learning approach has to be analyzed firstly and then a positive attitude should be developed in order for them to survive. The results recommend how to efficiently use modern education for enhancing the teaching-learning process.

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