



FACTORS AFFECTING THE ATTITUDE OF TEACHERS TOWARDS BLENDED LEARNING TO IMPROVE STUDENT PERFORMANCE IN SECONDARY SCHOOLS

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Abstract

Blended learning is one of the recently formulated innovative learning techniques that involve both e-learning procedures and the traditional learning methodologies in the teaching learning process. It is also known as technology-mediated instruction or mixed-mode of instruction. Blended learning requires the physical presence of both the teacher and the student with some elements of student control over time, place, path or pace. While students still attend the traditional talk and chalk methods of instruction in the classroom with the teacher's presence, the face-to-face classroom practices are combined with computer-mediated activities regarding content and delivery. This blended learning pedagogy has been proved very useful in the digital age where learners are separated by a distance in the teaching-learning process. The present study is intended to explore the factors that affect the attitude of teachers towards Blended learning in improving student performance in secondary schools in relation to the demographic variables, viz., gender, designation, teaching experience and the medium of instruction offered by the school. The study followed descriptive method of research. The sample consisting of 400 teachers (40 Headmasters and 360 School Assistants) from 40 secondary schools in Visakhapatnam district has been selected using Stratified Random Sampling method. The data were collected using a questionnaire developed and standardized by the researchers. The data were analyzed using different statistical techniques like means, standard deviations and t-tests. The findings of the study revealed that the variables - gender, designation and the medium of instruction offered by the school have no influence on the perceptions of teachers towards the use of Blended learning in improving student performance in secondary schools. However, teaching experience has a positive influence on the teachers' attitude towards blended learning. The study suggested that the teachers should have positive attitude towards blended learning.

Key words: Blended learning, Attitude of teachers, Student performance, Digital age.

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Introduction

Education is the process of facilitating learning. It helps in the acquisition of knowledge, skills, values, morals, beliefs and habits necessary for the human living. It is the most powerful instruments of social, economic and cultural transformation necessary for the realization of national goals. It cultivates social, moral and spiritual values among people (**Report of the Indian Education Commission, 1964-66**). Education helps to develop good qualities among people and tries to draw out the best in them. According to Aristotle, education is the creation of a sound mind in a sound body. It develops man's faculty, especially his mind so that he may be able to enjoy the contemplation of perfect happiness in reaching the goals of life. Curriculum and Pedagogy are two important aspects in the teaching learning process at secondary level. The curriculum should be transacted applying suitable pedagogy in secondary schools. The teachers follow various methods and techniques for teaching different school subjects. The emphasis in the teaching learning process has been shifted from teacher-centered education to child-centered learning. Students have been accustomed to learn at their own pace using technology with the help of online resources in the digital era. The face-to-face mode of classroom instruction supplements student learning. The use of traditional methods of teaching in face-to-face mode can be combined with technology-mediated instruction to make learning more meaningful and purposeful. This kind of a learning strategy is termed as 'Blended learning'. It has been proved very useful to the students in the digital era.

The concept of 'Blended learning'

Blended learning, also known as technology-mediated instruction or mixed-mode instruction, is an approach to education that combines online educational materials and opportunities for online interaction with physical place-based classroom methods. Blended learning requires the physical presence of both teacher and student with some elements of student control over time, place, path, or pace (**Banditvilai Choosri, 2016**). While students still attend brick-and-mortar schools with a teacher present, face-to-face classroom practices are combined with computer-mediated activities regarding content and delivery (**Strauss Valerie, 2012**). This pedagogy has been proved very useful in the digital age where learners are separated by a distance in the teaching-learning process. It is also used in professional development and training settings (**Kevin Lothridge, 2013**).

Blended learning is a mixture of online and in-person delivery, where the online portion effectively replaces some of the face-to-face contact time rather than supplementing it (**Charles R. Graham et al., 2013**). It represents an educational environment for much of the world where computers and the internet are readily available. It combines self-study with valuable face-to-face interaction with a teacher.

Blended learning is one of the recently formulated innovative learning techniques that involve both e-learning procedures and methodologies along with traditional learning methods. It consists of new measures like incorporating computers in the traditional classrooms, including projectors for animated teaching classes, voice recorded lectures, one-on-one interaction-based teaching methods and much more. This aspect of blended learning is also popularly recognized as hybrid learning or integrative and collaborative learning mechanisms (**Dziuban et al. 2018**).

Importance of Blended Learning

Blended Learning is a process that provides students information on different concepts using apps, games and other measurable programs. According to **Hrastinski (2019)**, blended learning makes every student maintain new materials and learning concepts easily in proper time at their own pace. This provides flexibility for students. The blended learning process can increase student satisfaction, reduce stress and promote deeper learning. With the help of this learning process, teachers can become more engaged with their students. To maintain the concentration of students in class, this learning process can decrease distraction, increase retention and help to acquire information (**Hubackova and Semradova 2016**).

Review of Related Studies

The studies carried out earlier by the other researchers that aim at finding out the attitude of teachers towards the use of Blended Learning to enhance student performance in secondary schools have been examined; and a brief review of the same is provided in the following paragraphs.

Irfan Fajrul Falah & Chairuddin (2022)

conducted a study to investigate the students' attitudes on implementing blended learning, especially in general English courses. This study employed survey method of research. The data were collected from 92 students of Primary School Education Study Program with the help of a questionnaire. Interviews were also conducted by the researchers to validate and elicit more feedback

in this study. The findings showed that almost 76.3% of the students were positive and satisfied on the implementation of blended learning. By applying blended learning, students were also permitted to repeat or re-open the lessons without any pressure. In this study, several shortcomings were also expressed by the students. Lack of Internet connection remained the main problem. Teachers' lack of online learning design was also a thing to be taken into consideration. Blended learning has been proved very effective in the teaching learning process.

Samer Ayasrah et al. (2022) conducted a study that focuses on explaining the attitudes of teachers and outstanding students towards Blended learning in the light of the Covid-19 pandemic. The researchers felt that the Covid-19 pandemic certainly created many problems in the educational sector, especially when the education system was completely closed, and different countries of the world sought to mitigate the effects of the pandemic on the education sector by relying on distance education (e-learning) and Blended learning. The study was conducted on a sample of 69 teachers and 201 outstanding students, who were chosen randomly. The researchers used two questionnaires – one questionnaire on the attitudes of teachers towards Blending Learning and the other one on the attitudes of Outstanding Students on Blended Learning to collect data. The results of the study revealed that the attitude of teachers and outstanding students towards blended learning in the light of the spread of the Corona virus was at an average level. The results of the study also showed that there were no statistically significant differences between teachers' and outstanding students' attitudes towards Blended learning in the light of the spread of the Covid-19 pandemic due to gender. According to the grade level, from the outstanding students' point of view, it also revealed the existence of an inverse relationship and a weak degree between the teachers' tendency towards Blended learning based on the teaching experience. The study recommended that Blended learning should be encouraged and strengthened by providing rewards and incentives. In addition, the use of modern technologies should be encouraged. Emerging technological software should be dealt with by holding training courses and workshops. Finally, the infrastructure for the e-learning system should be developed at the national level.

Md. Mahasin Ali (2021) conducted a study to explore the attitude of students of the University of Calcutta towards Blended Teaching with regard to

gender and locality. The quantitative research method has been used for the study. A self-constructed attitude scale was used to collect data from the respondents. The results of the study revealed that there is no significant difference in the attitude of between male and female students of Calcutta University towards Blended Teaching. And there is no significant difference in the attitude between rural and urban students of Calcutta University towards Blended Teaching. Most of the students think that the Blended Teaching method can be acceptable to the students of College and University. Most of the students think that it will be beneficial to the students if some syllabus is taught in Online mode and some is taught in Offline mode. Majority of the students felt that Blended Teaching method will be beneficial to the teachers in teaching. Most of the students think that Blended Teaching will make learning environment more flexible and helps to improve the learning of the students. Some students have expressed that they face certain difficulties with Blended Teaching. Some students think that only the Offline Teaching is more effective than Blended Teaching in Higher Education.

Reema Sultan Shaher Al-Saleh (2018) conducted a study to investigate secondary stage EFL teachers' attitudes towards Blended Learning (BL) in Tabuk city. The researcher used a questionnaire to collect quantitative data from a random sample of 50 EFL teachers to measure their attitudes towards Blended Learning. The findings of the study revealed teachers' satisfaction and positive attitudes towards Blended Learning; and highlighted the need to provide them with training sessions, resources, capabilities and support for effective implementation.

Need and Importance of the study

Curriculum and Pedagogy are two important aspects in the teaching learning process at secondary level. The curriculum should be transacted applying suitable pedagogy in secondary schools. The teachers follow various methods and techniques for teaching different school subjects. Blended learning has been proved a very effective method of teaching, wherein face-to-face mode of learning can be combined with technology-mediated instruction to make learning more effective and meaningful. The teachers should develop a positive attitude towards the use of blended learning technique in classroom teaching. The investigators thought it desirable to explore the perceptions of teachers towards the use of blended learning to enhance student performance in

secondary schools. The present investigation is an attempt in this direction.

Objectives of the study

1. To study the perceptions of teachers towards Blended learning to improve student performance in secondary schools.
2. To examine the influence of demographic variables –gender, designation ,teaching experience and the medium of instruction offered by the school on the attitude of teachers towards Blended learning to improve student performance in secondary schools.

Hypotheses of the study

1. There is no significant difference in the attitude of male and female teachers towards the use of blended learning to improve student performance in secondary schools.
2. There is no significant difference in the perceptions of Headmasters and School Assistants towards the use of blended learning to improve student performance in secondary schools.
3. There is no significant difference in the perceptions of teachers with an experience of less than 10 years and those with 10 years and above towards the use of blended learning to improve student performance in secondary schools.
4. There is no significant difference in the perceptions of teachers working in English and Telugu medium schools towards the use of blended learning to improve student performance in secondary schools.

Limitations of the study

The study is limited to find out the attitude of 400 teachers (40 Headmasters and 360 School Assistants) working in 40 secondary schools located in rural as well as urban areas in Visakhapatnam district of Andhra Pradesh towards the use of blended learning to improve student performance in secondary schools. Further, the study is confined to find out the influence of four demographic variables, viz., gender, designation, teaching experience and medium of instruction

offered by the school on the attitude of teachers towards the use of blended learning to improve student performance in secondary schools.

Methodology

(a) Method of Research

The researchers followed the Survey Method of the descriptive research for the present investigation.

(b) Sample

The sample of the study consists of 400 teachers (40 Headmasters and 360 School Assistants) from 40 selected secondary schools located in Visakhapatnam district of Andhra Pradesh using Stratified Random Sampling technique.

(c) Research Tool

The researchers used a well prepared and standardized questionnaire consisting of 36 items to collect data for the present investigation.

(d) Administration of the Tool

The tool was initially administered to 50 teachers (10 Headmasters and 40 School Assistants) working in the secondary schools located in Visakhapatnam city under Pilot study. The measures of reliability, validity and objectivity of the tool have been calculated. Further, the researchers conducted item analysis for the items included in the tool. Out of 36 items selected for the tool, the discriminating power of 30 items has been found positive and is found negative in respect of 6 items. The items whose discriminating power is negative have been removed; and the final tool consists of 30 items which are pool proof in all respects. The final tool has been administered to 400 teachers (40 Headmasters and 360 School Assistants) working in 40 Secondary Schools located in Visakhapatnam District of Andhra Pradesh.

(e) Statistical Techniques Used

The investigators used different statistical techniques such as Mean Score values, Standard Deviations and t- tests for data analysis and interpretation.

Table showing Mean, SD and t-values on the perceptions of teachers towards the use of Blended Learning approach in secondary schools

S. No.	Variable		N	Mean	S.D.	t-ratio/F-value	Result
1	Gender	Male Female	180 220	100.28 99.41	26.33 27.01	0.32*	*Not Significant at 0.05 and 0.01 levels
2	Designation	Headmasters School Assistants	40 360	99.00 100.28	26.60 26.12	0.61*	*Not Significant at 0.05 and 0.01 levels
3	Teaching Experience	Less than 10 yrs. 10 yrs. & above	170 230	101.44 88.85	27.51 26.17	4.61*	* Significant at 0.05 and 0.01 levels
4	Medium of instruction	English Telugu	120 280	99.17 100.86	27.81 25.88	0.57*	*Not Significant at 0.05 and 0.01 levels

Findings of the study

1. There is no significant difference in the attitude of male and female teachers towards the use of blended learning to improve student performance in secondary schools.

2. There is no significant difference in the attitude of Headmasters and School Assistants towards the use of blended learning to improve student performance in secondary schools.

3. There is significant difference in the attitude of teachers with an experience of less than 10 years and those with 10 years and above towards the use of blended learning to improve student performance in secondary schools.

Teachers with an experience of less than 10 years have exhibited better attitude towards the use of blended learning to improve student performance in secondary schools as compared to their senior counterparts with an experience of 10 years and above.

4. There is no significant difference in the attitude of teachers working in English and Telugu medium schools towards the use of blended learning to improve student performance in secondary schools.

Conclusions

From the findings of the study, it is concluded that the gender, designation and the medium of instruction offered by the school have no influence on the attitude of teachers towards the use of Blended learning approach in secondary schools. However, the teaching experience has a positive influence on the attitude to secondary school teachers towards the use of blended learning to improve student performance in secondary schools.

Recommendations

The study has suggested that the teachers should possess a favorable positive attitude towards the use of Blended learning approach in secondary schools.

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