



## Teachers' attitude towards Blended learning to improve student performance in Secondary Schools of Visakhapatnam District

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### Abstract

Blended learning has gained popularity in various educational settings, from secondary schools to higher education institutions and corporate training programs. It aims to leverage the benefits of technology to enhance learning outcomes, provide greater flexibility and adapt to the changing needs of modern learners. It is the application of technology in the instructional designs and processes in such a way that it can support and complement face-to-face delivery models effectively. It 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 the teacher and the student with some elements of student control over time, place, path or pace. It also has the potential to ensure educational equity for all learners with complete transparency of rendering education to the community of learners. 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. This 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 examine the attitude of teachers towards Blended learning to improve student performance in secondary schools in relation to certain demographic variables, viz., gender, age, type of school management and medium of instruction offered by the institution. Descriptive Survey method has been adopted in this study. The researchers used Stratified Random Sampling technique to select a sample of 300 teachers (160 Male and 140 Female) from 40 secondary schools in Visakhapatnam district of Andhra Pradesh. The data were collected using a questionnaire developed and standardized by the researchers. The tool consists of 40 items to find out the attitude of teachers towards Blended learning to improve student performance in secondary schools. 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, age and medium of instruction offered by the institution have no influence on the attitude of teachers towards the use of Blended learning to improve student performance in secondary schools. However, type of school management has a positive influence on their attitude towards Blended learning. The study suggested the teachers to integrate digital technology in teaching.

**Key words:** *Blended learning, Student performance, Teachers' attitude, Secondary Schools, Technology-mediated instruction*

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## Introduction

Blended learning is an educational approach that combines traditional classroom instruction with online learning activities. It seeks to integrate the benefits of face-to-face teaching with the flexibility and convenience of digital resources and technology. Ideally each will complement the other by using its particular strengths. The goal of blended learning is to create a more engaging, personalized and effective learning experience by leveraging the strengths of both in-person and online education.

Blended learning has gained popularity in various educational settings, from secondary schools to higher education institutions and corporate training programs. It aims to utilize the benefits of technology to enhance learning outcomes, provide greater flexibility and adapt to the changing needs of modern learners. It is the application of technology in the instructional designs and processes in such a way that it can support and complement face-to-face delivery models effectively. It is also known as technology-mediated instruction or mixed-mode instruction. It is an approach to education that combines online educational materials and opportunities for online interaction with physical place-based classroom methods. It also has the potential to ensure educational equity for all learners with complete transparency of rendering education to the community of learners.

## The concept of 'Blended learning'

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 (**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 (**Graham, et al., 2013**). It represents an educational environment for much of the world where computers and 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 collaborative learning mechanisms (**Dziuban Charles 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 destruction, increase retention and help to acquire information (**Sarka Hubackova and Ilona Semradova, 2016**).

### **Salient Features of Blended learning**

The following are some of the salient features of Blended learning:

- (i) **In-Person Instruction:** Students attend physical classes where teachers provide traditional lectures, facilitate discussions, and conduct hands-on activities.
- (ii) **Online Learning:** Students engage in digital activities such as watching videos, completing interactive modules, participating in online discussions, and taking quizzes or assessments.
- (iii) **Flexibility:** Blended learning allows students to have some control over the pace and timing of their learning, enabling them to access online materials and resources outside of scheduled class hours.
- (iv) **Personalization:** Educators can tailor the learning experience to individual student needs and learning styles by incorporating a mix of instructional methods.
- (v) **Data and Analytics:** Online platforms often provide data on student performance, allowing teachers to track progress and adjust instruction accordingly.
- (vi) **Collaboration:** Blended learning encourages collaborative activities among students, both in-person and online, fostering communication and teamwork skills.
- (vii) **Hybrid Models:** Some blended learning models might involve rotating groups of students between in-person and online sessions, which can help manage class sizes and resource constraints.
- (viii) **Flipped Classroom:** This is a specific type of blended learning where traditional classroom activities, such as lectures, are moved online, and in-person class time is dedicated to interactive discussions, problem-solving, and application of concepts.

In a blended learning environment, students typically have a mix of in-person interactions with teachers and peers as well as online interactions through digital platforms. The exact combination of these components can vary widely based on the educational institution and the course objectives. The blended learning approach can be carried out successfully only when the teachers are inclined to integrate technology in their classroom teaching.

### **Advantages of Blended learning**

According to **Rumpa Das (2021)**, the following are some of the advantages of Blended Learning in the teaching learning process.

1. Blended learning techniques make the students measure themselves and their efficiency levels. There are numerous procedures that make the learning processes for respective subjects and topics much easier for the students and every student can choose procedure that is best suited to their requirements (**Boelens et al. 2017**).
2. The communication, interaction and engagement between the students and the teachers get increased in the blended learning procedures. Students can consult about their specific weak points with the teachers; they can interact with the teachers irrespective of the time allocations via, chatting platforms and e-mails.
3. Instead of making the overall learning experience monotonous and tedious, the blended learning procedures make the experience appealing, attracting and fun. Students can

understand complex subject topics and theories with the help of simple applications, activities, games and animated contents.

## 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 below.

**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 in gathering the data wherein around 92 students of Primary School Education Study Program were involved in filling questionnaire. Interview was also conducted by the researchers to validate and elicit more feedback on this study. The findings revealed that almost 76.3% of the students were positive and satisfied on the implementation of blended learning. By applying blended learning, students did not experience any pressure to repeat or re-open the lesson. From this study, several shortages were observed by the researchers in the implementation of blended learning. Internet connection was the main problem. Teachers' lack of online learning design was also a factor to be taken into consideration. Students felt that blended learning is very effective. This study supports the refinement of the implementation, especially in the area where internet connection is a problem to be considered.

**Tamang Rubi and Naraginti Amareswaran Reddy (2022)** investigated the attitude of Post-Graduate Students toward blended learning at the North-Eastern Hill University (NEHU), Shillong. The research method used was Descriptive Research. The entire population was taken as a sample that included all the Post-Graduate Students enrolled in the science streams belonging to five departments viz. Botany, Chemistry, Physics, Plant Molecular Biology, and Zoology of NEHU, Shillong. Data were collected during February 2020. The number of participants who voluntarily participated in the study was only 114. The tool used was a self-constructed questionnaire that consisted of 8 statements that were framed to study the attitude of students towards blended learning. The result revealed that the students had a positive attitude towards blended learning and also opined that the blended learning model should be implemented in the university. The major limitation of this study was the use of a questionnaire to collect the data. It is recommended to take a larger sample and more coverage of other educational institutions for the robustness of the findings. Again, the present study was based on students' attitudes only. Hence, future research can include the teachers' attitude toward Blended Learning.

**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 EFL teachers' attitudes towards Blended Learning. The findings of the study indicated teachers' satisfaction and positive attitudes towards Blended Learning (BL); and highlighted the need to provide them with training sessions, resources, capabilities and support for effective implementation.

**Raj Kumar Nayak & Haripriya Panda (2018)** conducted a study to understand the attitude of pupil teachers towards Blended learning strategies with regard to their personal and locality variables. For this purpose, 100 pupil teachers were selected from 2 teachers' training institutions from Uttar Dinajpur district in West Bengal. A self made attitude scale was used for data

collection and t-test was used for data analysis. Result revealed that there was significant difference in the attitude of male and female pupil teachers towards Blended Learning for social development of the students. The study concluded that Blended Learning is helpful for the social development of the students at secondary level.

### **Need and Importance of the study**

Curriculum and Pedagogy should go hand-in-hand in the teaching learning process at secondary level. The curriculum should be transacted applying suitable pedagogy for teaching different school subjects. Blended learning has been proved a very effective method of teaching, wherein face-to-face mode of learning is combined with technology-mediated instruction to make learning more meaningful and purposeful. 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 study is an attempt in this direction.

### **Objectives of the study**

1. To study the attitude of teachers towards Blended learning to improve student performance in secondary schools
2. To examine the influence of demographic variables – gender, age, type of school management 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**

The following hypotheses have been formulated for the present investigation:

1. There is no significant difference in the attitude of male and female teachers towards blended learning to improve student performance in secondary schools.
2. There is no significant difference in the attitude of teachers aged below 40 years and those aged 40 years and above towards blended learning to improve student performance in secondary schools.
3. There is no significant difference in the attitude of teachers working in government and private schools towards blended learning to improve student performance in secondary schools.
4. There is no significant difference in the attitude of teachers working in English and Telugu medium schools towards blended learning to improve student performance in secondary schools.

### **Limitations of the study**

The study is limited to find out the attitude of 300 teachers (160 Male and 140 Female) from 40 secondary schools located in the rural as well as urban areas of Visakhapatnam district in Andhra Pradesh. Further, the study is confined to find out the influence of four demographic variables, viz., gender, age, type of school management and the medium of instruction offered by the school on the attitude of teachers towards 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 researchers used Stratified Random Sampling technique to select a sample of 300 teachers (160 male and 140 female) from 40 secondary schools located in the rural as well as urban areas in Visakhapatnam district of Andhra Pradesh.

### (c) Research Tool

The researchers used a well developed and standardized 'questionnaire' consisting of 40 items to collect data for the present investigation.

### (d) Administration of the Tool

The tool was initially was administered to 30 teachers (15 male and 15 female) in the 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 45 items selected for the tool, the discriminating power of 40 items has been found positive and is negative in respect of 5 items. The items whose discriminating power is negative have been removed; and the final tool consists of 40 items which are pool proof in all respects. The final tool has been administered to 300 teachers (160 male and 140 female) working in 40 Secondary Schools located in Visakhapatnam District of Andhra Pradesh.

### (e) Analysis and Interpretation of data

The investigators used different statistical techniques such as Mean Score values, Standard Deviations and t- tests for analysis and interpretation of data. The results are provided in the following table.

**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	160 140	112.63 113.36	28.77 32.21	0.21*	*Not Significant at 0.05 and 0.01 levels
2	Age	Below 40 yrs. 40 yrs. & above	190 110	113.03 114.50	32.22 32.34	0.38*	*Not Significant at 0.05 and 0.01 levels
3	Type of School Management	Government Private	170 130	112.85 102.35	34.29 30.25	2.81*	*Significant at 0.05 and 0.01 levels
4	Medium of Instruction	English Telugu	120 180	114.67 112.61	31.93 33.37	0.54*	*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 blended learning to improve student performance in secondary schools.
2. There is no significant difference in the attitude of teachers aged below 40 years and those aged 40 years and above towards blended learning to improve student performance in secondary schools.
3. There is significant difference in the attitude of teachers working in Government and Private schools towards blended learning to improve student performance in secondary schools. Teachers working in Government schools have exhibited better attitude towards blended learning to improve student performance in secondary schools as compared to their counterparts working in Private schools.
4. There is no significant difference in the attitude of teachers working in English and Telugu medium schools towards blended learning to improve student performance in secondary schools.

## Conclusion

From the findings of the study, it is concluded that the gender, age and medium of instruction offered by the school have no influence on the attitude of teachers towards Blended learning to improve student performance in secondary schools. However, teachers working in Government schools have exhibited better attitude towards blended learning to improve student performance in secondary schools as compared to their counterparts working in Private schools.

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