



## **A STUDY ON TEACHERS' PERCEPTIONS TOWARDS BLENDED LEARNING IN IMPROVING STUDENT PERFORMANCE IN SECONDARY SCHOOLS**

**Dr. D. Nagaraja Kumari\* & D. Satyanarayana\*\***

\* Associate Professor, IASE & Chairperson, BOS in Education (PG), Department of Education, Andhra University, Visakhapatnam, Andhra Pradesh

\*\* Research Scholar, Department of Education, Andhra University, Visakhapatnam, Andhra Pradesh

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### **Abstract:**

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. 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 perceptions of teachers towards Blended learning in improving student performance in secondary schools in relation to certain demographic variables, viz., gender, age, teaching experience and location of the institution. Descriptive Survey method has been adopted in this study. The sample consisting of 250 teachers (100 Male and 150 Female) from 30 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 tool consists of 30 items to find out the perceptions of teachers towards Blended learning 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, teaching experience and location of the institution have no influence on the perceptions of teachers towards the use of Blended learning in improving student performance in secondary schools. The study suggested the teachers to integrate digital technology in their classroom teaching.

**Key Words:** Blended Learning, Student Performance, Teachers' Perceptions, Technology-Mediated Instruction

### **Introduction:**

Education is an effective means of social reconstruction. It 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 helps to increase the productivity, achieve national and emotional integration; and accelerate the process of modernization. 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 that blended learning is 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).

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

- 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).
- 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.
- 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 in the following paragraphs.

Jayaraman et al. (2022) conducted a study to investigate secondary students' attitudes about blended learning; and to develop a tool to assess secondary students' attitudes toward mixed learning. 895 secondary school pupils were chosen from Kottayam District of Kerala using stratified random sampling method. To examine the attitudes of students about blended learning, the investigators employed a questionnaire developed by them for collection of data from the respondents. The findings show no statistical differences between the attitudes of different groups of students based on gender, geographical area, medium of instruction, school type or management towards blended learning.

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.

Balusamy, K. & Indrani, T. (2021) conducted a study to know the attitude of school teachers towards Blended Learning. The researchers used normative survey method for the present investigation. The data were collected with the help of a questionnaire from a sample of 450 teachers working in the Higher Secondary Schools of Tamil Nadu using simple Random Sampling technique. The data were analyzed using means, standard deviations and tests of significance (t-tests) for verification of hypotheses. The findings of the study

revealed that the teachers have favorable attitude towards blended learning. Further, the results revealed that gender, marital status, location of the school and type of school management (Government and aided) have a significant positive relationship on the attitude of teachers towards Blended learning. However, teaching experience has no influence on their attitude towards Blended learning. It is also revealed that there is no significant relationship in the attitude of teachers working in Private and Aided schools towards Blended learning.

Rumpa Das (2021) conducted a study that provides information about the attitude of students and teachers towards the blended learning approach at the elementary level. The blended learning approach is conducted with a combination of face-to-face and e-learning processes. The blended learning process can provide ultimate flexibility towards students, which is included in this study. Due to this facility, it is easy to state that the blended learning approach is more authentic than the traditional learning processes. Further, with the help of blended learning process, students can increase their interaction with the teacher. This study is conducted with the involvement of 'positivism' research philosophy, descriptive research design and deductive research approach. A simple random sampling technique is used in this study to maintain collected information. 100 respondents are involved in this study, of which 50 respondents are teachers and 50 respondents are students. Four effective tools are implemented in the primary data collection process such as face-to-face, phone, mail, and online. The quantitative data analysis process is maintained with the involvement of these tools. Published questionnaires, reporting and focus groups are treated as effective data collection tools for secondary data.

The findings of the survey revealed that blended learning has been proved more effective on student learning; and thus is beneficial if implemented in the elementary levels of education. The implemented processes of learning in the blended learning environment are reasonably more efficient and smart, which is concluded in this study. It simply means that the respective teachers can teach better to their students in shorter periods of time hassle-free in this approach. Further, the students can have better interaction with their teachers.

#### **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 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 investigation is an attempt in this direction.

#### **Objectives of the Study:**

- To study the perceptions of teachers towards Blended learning to improve student performance in secondary schools
- To examine the influence of demographic variables – gender, age, teaching experience and the location of the institution on the perceptions of teachers towards Blended learning to improve student performance in secondary schools

#### **Hypotheses of the Study:**

- There is no significant difference in the perceptions of male and female teachers towards the use of blended learning approach in secondary schools.
- There is no significant difference in the perceptions of teachers aged below 40 years and those aged 40 years and above towards the use of blended learning approach in secondary schools.
- 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 approach in secondary schools.
- There is no significant difference in the perceptions of teachers working in rural and urban areas towards the use of blended learning approach in secondary schools.

#### **Limitations of the Study:**

The study is limited to find out the perceptions of 250 teachers towards the use of blended learning approach in the 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, teaching experience and location of the school on the perceptions of teachers towards the use of blended learning secondary schools.

#### **Methodology:**

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

- Sample: The sample of the study consists of 250 teachers (100 Male and 150 Female) from the selected secondary schools located in Visakhapatnam district of Andhra Pradesh using Stratified Random Sampling technique.
- Research Tool: The researchers used a well prepared and standardized questionnaire consisting of 34 items to collect data for the present investigation.
- Administration of the Tool: The tool was initially was administered to 25 teachers (10 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 34 items selected for the tool, the discriminating power of 30 items has been found positive and is found negative in respect of 4 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 250 teachers (100 Male and 150 Female) working in 30 Secondary Schools located in Visakhapatnam District of Andhra Pradesh.
- 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	100 150	99.90 101.03	26.45 27.59	0.33*	*Not Significant at 0.05 and 0.01 levels
2	Age	Below 40 yrs. 40 yrs. & above	120 130	98.00 96.19	27.75 28.28	0.51*	*Not Significant at 0.05 and 0.01 levels
3	Teaching Experience	Less than 10 yrs. 10 yrs. & above	140 110	96.64 99.05	28.27 27.73	0.68*	*Not Significant at 0.05 and 0.01 levels
4	Location of the institution	Rural urban	130 120	94.19 93.67	27.96 27.75	0.15*	*Not Significant at 0.05 and 0.01 levels

#### Findings of the Study:

- There is no significant difference in the perceptions of male and female teachers towards the use of blended learning approach in secondary schools.
- There is no significant difference in the perceptions of teachers aged below 40 years and those aged 40 years and above towards the use of blended learning approach in secondary schools.
- 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 approach in secondary schools.
- There is no significant difference in the perceptions of teachers working in rural and urban areas towards the use of blended learning approach in secondary schools.

#### Conclusions:

From the findings of the study, it is concluded that the gender, age, teaching experience and the location of the institution have no influence on the perceptions of teachers towards the use of Blended learning approach 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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