



# Perception Of Pupil Teachers On Implementation Of Blended Learning At Elementary Level

**Riya Singha<sup>a</sup>, Dr. Subrata Naskar<sup>b</sup> (corresponding author)**

<sup>a</sup> M.A student, Department of English , Vidyasagar University, West Midnapore, Pin-721101, West Bengal, India.

<sup>b</sup> Assistant Teacher (H.S section), Bohalberia MD. B. N. Sikshasadan (Govt. Sponsored), South 24 PGS, Pin-743399, West Bengal, India.

## Abstract:

In the 21<sup>st</sup> century, there has been a massive revolution in the educational sector with the integration of Information and Communication Technology (ICT) and the internet worldwide. The main objective of this study was to explore the perception of D.El.Ed. pupil teachers on implementation of blended learning at the elementary level with respect to their gender and locality. A cross-sectional survey was conducted among seventy D.El.Ed. pupil teachers (academic year: 2023-25) from different training colleges in the North 24 PGS district of West Bengal. The study used self-administered questionnaire (5-point Likert scale) which consist of two sections, section-A seeks socio-demographic information of the respondents and section-B covers 20 statements with 5-point likert scale [Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD)] about perception on implementation of blended learning at elementary level . Content validity of the tool was done through experts' judgment. The collected data were analyzed statistically using descriptive statistics and t-test. From this study, it was found that most of the pupil teachers have a favorable attitude towards blended learning. From the result of this study, it was also found that there was no statistically significant mean difference in perception on implementation of blended learning at the elementary level among the D.El.Ed. pupil teachers with respect to their gender and locality.

**Keywords:** Blended learning, Perception, Pupil teachers, elementary level.

## Introduction:

In the 21<sup>st</sup> century, blended learning has evolved as one of the crucial teaching-learning method for personalized, productive, and collaborative learning experiences from traditional face-to-face learning. Blended learning is a blend or mix of the various pedagogical approaches (e.g., constructivism, behaviourism, cognitivism) with various mode of learning (traditional offline learning, online learning-

synchronous/ asynchronous) to produce optimal learning outcome. Now blended learning is one of the most important ways of the educational process (Aladwan, et al. 2018). Blended learning consist 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 (Das, 2021). The National Educational Policy (NEP) - 2020, recommends for use of blended model of learning for the teaching-learning process at all levels from school to higher education for increased learning skills, greater access to information, improved satisfaction & learning outcomes and opportunities both to learn with others & to teach others. The attitude of students and teachers can play an essential role in the implementation of blended learning in all level of education. Blended learning is a challenging method can be used by teachers to increase students' motivation & engagement in the learning process & make them more independent inside and outside the classroom. According to Hrastinski (2019), blended learning process can help student to engage with materials at their own pace, which is treated as an effective importance of this learning process. Blended learning method can increase the concentration level of the students in class & also can decrease destruction, increase retention and help to acquire broad spectrum information (Hubackova & Semradova, 2016). In 19<sup>th</sup> century, John Dewey (1915), stated that '.....if we teach today's students as we taught yesterday's, we rob them of tomorrow'. So, to cope with living in the 21<sup>st</sup> century, teachers who teach today's learners must be require some specific skills & must be change their attitude on the traditional teaching-learning process. According to Balanskat et al. (2006), teachers' beliefs about teaching and learning, and their previous experience with technology will have an influence on whether or not they will develop, employ and promote the learning environments as required by the learners. Hence, teachers need to be trained with ICT and break the conventional thinking of the teaching-learning process. In teachers' training institute, trainee teachers should provide proper knowledge & training for the development of a proper attitude to incorporate a blended teaching-learning approach in the classroom situation. So, before implementing the blended learning in school education, it is very essential to evaluate the attitude of pupil teachers towards blended learning approach.

### **Review of related literature:**

An effort has been made to review some of the existing literature on the perception of pupil teachers towards blended learning. Conventional teaching-learning method is no longer appropriate for the learner's current association with the technology (Sandanayake, 2019). Now a day, blended learning is very essential because it breaks down the traditional wall of teaching, one that doesn't work for every student. But now, with access to current technologies and resources, we can tailor the learning experience for each student. Blended learning method has created a flexible atmosphere in the learning process and allows students to access & learn at their own pace, meaning a teacher can help speed up the learning process and give more advanced resources if necessary (Balusamy & Indrani, 2021). Due to the importance of blended learning in the educational process, several studies have been conducted to

explore the perception of pupil teachers towards implementation of blended learning at the school or university level.

**Table 1:** A survey of related studies pertaining to the present study is presented in the form of literature matrix-

Author/s	Year	Topic	Variables	Findings
Thiyagu, K.	2011	“B.Ed. trainees’ perceptions towards blended learning in teaching and learning of mathematics”	Gender, level of study (UG/PG) and father’s educational qualification	<ul style="list-style-type: none"> <li>• B.Ed. trainees have moderate level of perception towards blended learning.</li> <li>• There were no significant differences in perception towards blended learning with respect to their gender in terms of e-learning attitude, traditional learning method, online learning and blended learning attitude.</li> <li>• There was a significant difference in perception towards blended learning among B.Ed. trainees with respect to their level of study in terms of e- learning attitude. But no significance difference in terms of traditional method, online learning and blended learning attitude.</li> <li>• There was no significant difference in perception towards blended learning with respect to their father’s educational qualification.</li> </ul>
Author/s	Year	Topic	Variables	Findings
Angadi, G.R.	2016	“Student-teachers perceptions towards blended learning approach in critical understanding of ICT in education”	Gender, level of study (UG/ PG)	<ul style="list-style-type: none"> <li>• Most number of B.Ed. student- teachers has moderate level of perception towards blended learning.</li> <li>• There were no significant differences in perception towards blended learning with respect to their gender and level of study.</li> </ul>
Khan, S.	2016	“Attitude of prospective teachers towards blended learning technology- a normative approach”	Gender, subject, marital status and locality	<ul style="list-style-type: none"> <li>• The level of attitude towards blended learning was high.</li> <li>• Female prospective teachers are significantly having more level of attitude than the male teachers.</li> <li>• The prospective teachers who are from science background are having significantly more level of attitude than who are from arts subject.</li> <li>• There were no significant differences in attitude towards blended learning among perspective teachers in terms of marital status and locality.</li> </ul>
		“Teachers’ attitudes towards using blended	Gender,	<ul style="list-style-type: none"> <li>• High level of statistically significant in teachers’ attitudes towards using blended teaching in primary stage.</li> </ul>

Obaidat, L.T.M.	2016	teaching in primary stage in Bani Kinanah directory”	qualification & teaching experience	<ul style="list-style-type: none"> <li>There was no statistically significant mean difference in teachers’ attitude due to gender, qualification &amp; teaching experience.</li> </ul>
Birbal, Ramdass & Harripaul	2018	“Student teachers’ attitude towards blended learning”	Sex, location, status (part time/ full time), specialization (prim./ sec.), year group & age	<ul style="list-style-type: none"> <li>Student teachers’ viewed learning flexibility and technology as the most important aspect of blended learning.</li> <li>There were a significant differences in attitude towards blended learning based on sex, locality, status, specialization age and year group.</li> </ul>
Jayalakshmi & Prema	2018	“A study of attitude towards ICT and blended learning approach among B.Ed. student’s in Kancheepuram district”	Gender & age	<ul style="list-style-type: none"> <li>There were no significant differences in attitude towards ICT based learning with respect to gender &amp; age.</li> <li>There were no significant differences in attitude towards blended learning with respect to gender &amp; age.</li> </ul>
Author/s	Year	Topic	Variables	Findings
Nayak & Panda	2018	“Attitude of pupil teachers towards using blended learning strategies at secondary levels for developing social skills of students”	Gender, locality and marital status	<ul style="list-style-type: none"> <li>There was no significant difference in attitude towards using blended learning strategies at secondary levels for developing social skills of students with respect to gender.</li> <li>There was a significant difference in attitude towards using blended learning strategies at secondary levels for developing social skills of students with respect to locality and marital status.</li> </ul>
Saboowala & Manghima – lani-Mishra	2020	“Perception of in-service teachers towards blended learning as the new normal in teaching- learning process in post covid-19 pandemic”	Gender, attended/ conducted webinar/ conference/ workshops/ FDPs and highest qualification	<ul style="list-style-type: none"> <li>Both male and female in-service teachers and teachers, who have attended / conducted webinars / workshops / FDPs online or not, did not differ in their attitude towards blended learning.</li> <li>When the interaction effect between gender and teachers who have attended/ conducted webinars / workshops / FDPs online or not was considered, the attitude of teachers varied significantly towards blended learning and online learning dimension of blended learning.</li> <li>Teachers with highest degrees had a better attitude towards the adaption towards blended learning.</li> </ul>

Balusa-my & Indrani	2021	“Attitude towards blended learning among school teachers in Tamil Nadu- A study blended learning”	Gender, locality, marital status, types of management , year of experience	<ul style="list-style-type: none"> <li>• The school teachers are having favorable level of attitude towards blended learning.</li> <li>• There were significant differences in attitude towards blended learning among the teachers with respect to their gender, locality, marital status, and Govt. &amp; aided school teachers.</li> <li>• There were no significant differences in attitude towards blended learning among the teachers with respect to their year of experience and between private &amp; aided school teachers and Govt. &amp; private teachers.</li> </ul>
Author/s	Year	Topic	Variables	Findings
Ali, M.	2021	Students attitudes toward blended teaching among students of the University of Calcutta	Students attitude, gender and locality	Non-significant difference was found in attitude towards blended learning in respect of gender and locality.
Nautiyal, R. and Khanduri, G.	2023	Attitude of Pupil Teachers Towards Blended Learning In The Garhwal Himalayan Region	Knowledge and attitude towards blended learning	Majority of the pupil teachers have an average level of perception towards blended learning. Significance difference was found in the attitude of pupil teachers in respect of gender.

### Identification of research gap:

So, based on details analysis of related studies, it was found that most of the teachers or student-teachers have a moderate to high level of perception towards blended learning due to flexibility, use of modern technology, collaborative nature, and student-centric approach. It is also stated that variation in perception is due to different socio-demographic factors. Exploring all the studies, it was also found that less research has been carried out on the perception of pupil teachers (D.El.Ed. trainees) towards the implementation of blended learning in the context of West Bengal. So, there is a dearth of empirical studies on the perception of pupil teachers towards the implementation of blended learning at the elementary level & this is the gap current studies intended to fill by conduct a study on “Perception of pupil teachers on implementation of Blended learning at elementary level”.



**Operational definition of the terms/concepts used in the study:**

- **Pupil teachers:**

In this study, pupil teachers refers to the students studying in D.El.Ed courses of the academic session 2023-2025 from different training colleges in the North 24 PGS district of West Bengal.

- **Perception:**

Perception is an individual's characteristic way of responding consistently in a favourable or unfavourable manner to objects, people, or events in their environment. It is based on the individual's experience and their interpretation of it, and leads to certain behaviors or opinions. In this study, attitude is considered as one of the perceptions.

- **Blended learning:**

Blended learning is a blend or mix of the various pedagogical approaches (e.g., constructivism, behaviourism, cognitivism) with various modes of learning (traditional offline learning, online learning) to produce optimal learning outcomes.

**Delimitation of the Study:**

This study was delimited to seventy D.El.Ed. pupil teachers (academic session: 2023-25) from different training colleges in the North 24 PGS district of West Bengal.

**Objectives:**

The objectives of the present study were:

- To find out the difference in perception of D.El.Ed. pupil teachers on the implementation of blended learning at the elementary level with respect to their gender.
- To find out the difference in perception of D.El.Ed. pupil teachers on the implementation of blended learning at the elementary level with respect to their locality.

**Hypotheses:**

In order to test the objectives, the following hypotheses were formulated:

**H<sub>01</sub>:** There is no statistically significant mean difference in perception of D.El.Ed. pupil teachers on the implementation of blended learning at the elementary level with respect to their gender

**H<sub>02</sub>:** There is no statistically significant mean difference in perception of D.El.Ed. pupil teachers on the implementation of blended learning at the elementary level with respect to their locality

**Methodology:**

**Study type:** The method used for the study was a descriptive survey method.

**Population:** All the D.El.Ed. pupil teachers from different training colleges of West Bengal.

**Sample:** 70 (Seventy) D.El.Ed. pupil teachers from different training colleges in the North 24 PGS district of West Bengal were selected by a random sampling method.

**Variables:**

- **Dependent Variable:** Perception on implementation of blended learning at the elementary level.
- **Independent Variable:** Gender (male & female) and locality (urban & rural).

**Tools:**

The perception on implementation of blended learning at the elementary level was assessed by using an attitude scale. This attitude scale was developed by the researchers. The tool had two sections: Section-A seeks socio-demographic information of the respondents and Section-B covers 20 statements with a 5-point likert scale [Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD)] about perception on implementation of blended learning at the elementary level. Content validity of the tool was done through experts' judgment. There were 17 positive and 03 negative direction statements on the scale. For scoring weightage was given 5, 4, 3, 2, 1 for positive direction statements and in case of negative direction statements, reverse scoring was applied.

Data were collected through a face-to-face survey and an online survey through Google forms. Before collecting the data, consent forms were collected from all the participated pupil teachers.

**Statistical Technique Used for Data Analysis:**

The data gathered from the sample population was analyzed using descriptive statistics and t-test. MS Excel was employed for data analysis.

**Data Analysis and Interpretation:**

**Hypothesis 1:** There is no statistically significant mean difference in perception of D.El.Ed. pupil teachers on the implementation of blended learning at the elementary level with respect to their gender

**Table 2:** Independent sample t-test between the male and female score

Group	N	Mean	S.D	df	t-stat	t-crit.	P-value	Remarks
Male	35	76.94	3.57	68	0.86	1.99	0.39	Non Significant at 0.05 level
Female	35	77.65	3.33					

**Interpretation:** According to the t-test analysis, the computed t-value (0.86) was less than the t-critical value (1.99) at a 0.05 significance level. In table 2, it was also shown that the p-value (0.39) was higher than 0.05. It implies that a non-significant difference exists. So, the null hypothesis, “there is no statistically significant mean difference in perception of D.El.Ed. pupil teachers on the implementation of blended learning at the elementary level with respect to their gender” was accepted.

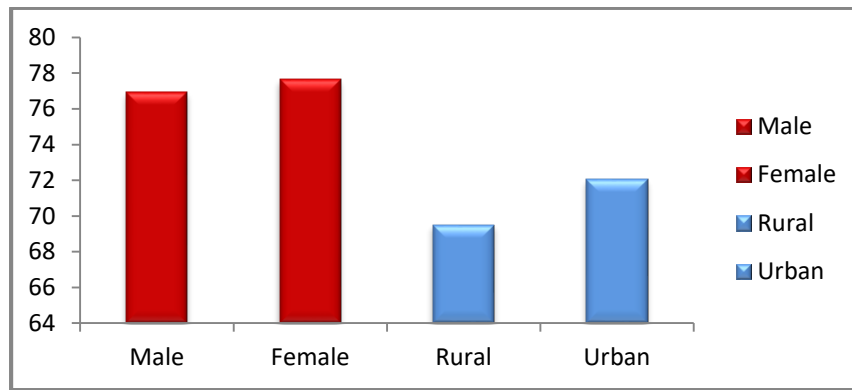
**Hypothesis 2:** There is no statistically significant mean difference in perception of D.El.Ed. pupil teachers on the implementation of blended learning at the elementary level with respect to their locality

**Table 3:** Independent sample t-test between the urban and rural score

Group	N	Mean	S.D	df	t-stat	t-crit.	P-value	Remarks
Urban	40	72.05	15.87	68	0.58	1.99	0.56	Non Significant at 0.05 level
Rural	30	69.5	20.63					

**Interpretation:** According to the t-test analysis, the computed t-value (0.58) was less than the t-critical value (1.99) at a 0.05 significance level. In table 3, it was also shown that the p-value (0.56) was higher than 0.05. It implies that a non-significant difference exists. So, the null hypothesis, “there is no statistically significant mean difference in perception of D.El.Ed. pupil teachers on the implementation of blended learning at the elementary level with respect to their locality” was accepted.





**Fig. 1:** Bar diagram showing the mean score of male & female and rural & urban pupil teachers in perception towards blended learning

### Findings & Conclusion:

This study was a humble attempt to explore perceptions of pupil teachers on implementation of blended learning at the elementary level with respect to gender and locality. From this study, it was found that most of the pupil teachers have a favorable attitude towards blended learning. From the study, it was also found that there was no statistically significant mean difference in perception on implementation of blended learning at the elementary level among the pupil teachers with respect to their gender and locality. So, the Government should organize different seminars, workshops and awareness programs for both teachers and students regarding how to use blended learning for effective teaching-learning purposes.

### Limitations of the study and Recommendations for future research:

- ✓ This research was conducted for pupil teachers of the North 24 PGS district of West Bengal only. This study may be conducted in the other districts of West Bengal.
- ✓ The research was conducted on the pupil teachers in D.El.Ed course. This study may be extended to pupil teachers in B.Ed course.
- ✓ The study may be carried out with an increased sample size.
- ✓ A study may be conducted to identify different challenging situations faced during blended learning.
- ✓ In this study, only two variables (gender and locality) were taken for the survey. This study may be extended with some other variables also.

## References:

1. Aladwan, F., Al-Shboul, M. A., Al-Awamrah, A.F. (2018). Distance education, Blended learning and e-learning: Prediction and Possibilities. *Modern Applied Science*, 13(2), 192-206. [https://www.researchgate.net/publication/333250026\\_Distance\\_Education\\_Blended\\_Learning\\_and\\_e-Learning\\_Predictions\\_and\\_Possibilities](https://www.researchgate.net/publication/333250026_Distance_Education_Blended_Learning_and_e-Learning_Predictions_and_Possibilities)
2. Ali, M. (2021). Students attitudes toward blended teaching among students of the University of Calcutta. *International Journal of Advance Research*, 9 (Jul). 267-274. <https://dx.doi.org/10.21474/IJAR01/13125>
3. Angadi, G. R. (2016). Student-teachers perceptions towards Blended Learning Approach in Critical Understanding of ICT in Education. *International Journal of Research in Economics and Social Sciences*, 6(3), 77-8. [https://d1wqtxts1xzle7.cloudfront.net/47843605/IJRESS\\_March\\_2016-](https://d1wqtxts1xzle7.cloudfront.net/47843605/IJRESS_March_2016-)
4. Balanskat, A., Blamire, R. & Kefala, S. (2006). The ICT Impact Report: A Review of Studies of ICT Impact on Schools in Europe, European Schoolnet. <https://www.semanticscholar.org/paper/The-ICT-Impact-Report-%3A-A-review-of-studies-of-ICT-Balanskat-Blamire/628863abac8753bcb827f641f596f9e6e2ad5ab7>
5. Balusamy, K. & Indrani, T. (2021): Attitude towards Blended Learning among School Teachers in Tamil Nadu: A Study of Blended Learning. *International Journal of Creative Research Thoughts*, Volume 9, Issue 12, pp. e101-118, December, 2021. <https://ijcrt.org/papers/IJCRT2112424.pdf>
6. Balusamy, K. & Indrani, T. (2021): Attitude towards Blended Learning among School Teachers in Tamil Nadu: A Study of Blended Learning. *International Journal of Creative Research Thoughts*, Volume 9, Issue 12, pp. e101-118. <https://ijcrt.org/papers/IJCRT2112424.pdf>
7. Birbal, D. R., Ramdass, D. M., & Harripaul, M. C. (2018). Student teachers' attitudes towards blended learning. *Journal of Education and Human Development*, 7(2), 9–26. [https://www.researchgate.net/deref/https%3A%2F%2Fdoi.org%2F10.15640%2Fjehd.v7n2a2?\\_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIiwicHJldmlvdXNQYWdlIjoicHVibGljYXRpb24iLCJwb3NpdGlviI6InBhZ2VDb250ZW50In19](https://www.researchgate.net/deref/https%3A%2F%2Fdoi.org%2F10.15640%2Fjehd.v7n2a2?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIiwicHJldmlvdXNQYWdlIjoicHVibGljYXRpb24iLCJwb3NpdGlviI6InBhZ2VDb250ZW50In19)
8. Das, R. (2021). The Attitude of Students and Teachers towards Blended Learning at the Elementary Level. *Elementary Education Online*, 20 (5), 2021, 245-257.
9. Hrastinski, S. (2019). What Do We Mean by Blended Learning? *TechTrends*, 63, 564-569. <https://doi.org/10.1007/s11528-019-00375-5>
10. Hubackova, S., and Semradova, I. (2016). Evaluation of Blended Learning. *Procedia – Social and Behavioral Sciences*, 217, 551-557. <https://doi.org/10.1016/j.sbspro.2016.02.044>
11. Jayalakshmi, B. and Prema, N. (2018). A STUDY ON ATTITUDE TOWARDS ICT AND BLENDED LEARNING AMONG B.ED STUDENT'S IN KANCHEEPURAM

- DISTRICT. *International Journal of Advance Research* 6 (Jul). 179-181.  
<https://www.journalijar.com/article/24287/a--study-on-attitude-towards-ict-and-blended-learning-among-b.ed-student/?s-in-kancheepuram-district>.
12. K., T. (2012). B.Ed. Trainees' Perceptions of Blended Learning in Teaching and Learning of Mathematics. *Frontiers in Education and Research*, 1(1), 36–41.  
[https://www.academia.edu/45079535/B\\_Ed\\_Trainees\\_Perceptions\\_of\\_Blended\\_Learning\\_in\\_Teaching\\_and\\_Learning\\_of\\_Mathematics](https://www.academia.edu/45079535/B_Ed_Trainees_Perceptions_of_Blended_Learning_in_Teaching_and_Learning_of_Mathematics)
13. Khan, D. S. H. (2016). Attitude of Prospective Teachers towards Blended Learning Technology: A Normative Approach. *SMART MOVES JOURNAL IJELLH*, 4(6), 10. Retrieved from  
<https://ijellh.com/index.php/OJS/article/view/1438>
14. Nautiyal, R. and Khanduri, G. (2023). Attitude of Pupil Teachers Towards Blended Learning In The Garhwal Himalayan Region. *Journal of Mountain Research*, 18(1), 225-231.  
[https://jmr.sharadpauri.org/papers/18\\_1\\_2023/25\\_JMR\\_2023\\_Rashmi.pdf](https://jmr.sharadpauri.org/papers/18_1_2023/25_JMR_2023_Rashmi.pdf)
15. Nayak, R. K., & Panda, H. (2018). Attitude of Pupil Teachers Towards Using Blended Learning Strategies At Secondary Levels for Developing Social Skill of Students. *Journal of Emerging Technologies and Innovative Research*, 5(4), 1082-1087.  
<http://www.jetir.org/papers/JETIR1804403.pdf>
16. Obaidat, L. T. M. (2016). Teachers ' Attitudes towards using Blended Teaching in primary stage in Bani Kinanah directory. *International Journal of Education and Research*, 4(12), 97–112.  
<https://www.ijern.com/journal/2016/December-2016/07.pdf>
17. Saboowala, R. and Manghirmalani-Mishra, P. 2020. Readiness of in-service Teachers Towards Blended Learning Approach as a Learning Pedagogy Post COVID-19 Era. *Research Square*,  
<https://doi.org/10.21203/rs.3.rs-56794/v1>
18. Sandanayake, T.C. (2019) Promoting Open Educational Resources-Based Blended Learning. *International Journal of Educational Technology in Higher Education*, 16(3). 1-16.  
<https://doi.org/10.1186/s41239-019-0133-6>