

# Effectiveness of Blended Teaching Approach on Students' Achievement to Learn English: An Experimental Study

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## Abstract

*The present study aims to investigate the effectiveness of the blended teaching approach on students' achievement to learn the pedagogy of the English language. An experimental research strategy with a pretest-posttest equivalent groups design was used. The study sample comprised 28 B. Ed students who were randomly divided into experimental and control groups. The experimental group studied the pedagogy of the English language through a blended teaching approach, an integration of e-learning with traditional face-to-face learning, whereas the control group was instructed solely by the latter. An achievement test was administered between the two groups before and after the experimental treatment. The result of the t-test revealed statistically significant differences between the two groups in the post-achievement test, indicating that the experimental group outperformed the control group. Significant differences were also found in the mean achievement scores of the experimental group before and after the treatment, signifying the effectiveness of the blended teaching approach for learning the pedagogy of the English language.*

**Keywords:** Blended teaching, effective learning, e-Learning, English pedagogy, students' achievement, traditional teaching

## Introduction

Teaching cannot be defined separately from learning. It is guiding and facilitates learning, enabling the learner to learn. A teacher's responsibility is thus multifaceted: it is to assist learning, to help learners on their learning path, to know when to intervene (with suggestions, explanations, and encouragements), and when to stand aside and observe (King, 2016). In the current digital era, learners have become technology-oriented, which the teacher must leverage to the fullest extent possible, as learning occurs everywhere and at any time, not just in the classroom.

Students can't be 'taught' – they can

only be helped to learn. In a student-centred classroom, a teacher's role is to support and encourage students to develop their skills, but without relinquishing their traditional role as a source of information, advice and knowledge. Here, the teacher and the students are a team working together. (Jones, 2007, p.25)

This becomes true when a blended approach to teaching-learning is practised. It empowers the learners by providing them rich interactive input, giving them just-in-time support, assisting them in becoming independent learners and encouraging them to find new knowledge. Thus, the term 'blended' means combining different learning environments in integrated way—either

learning in the classroom with the teacher's help and support or learning online more independently or with peer support (King, 2016). As Marsh (2012) remarks, "Today blended learning can refer to any combination of different methods of learning, different learning environments, different learning styles" (p.3). Moreover, blended learning is a modern educational strategy that aims at interactive learning, resulting in the blending or mixing of a teacher's role in a traditional classroom with that of a virtual one (Oweis, 2018). In short, the effective implementation of blended teaching is to achieve the 'optimal' learning environment (Marsh, 2012).

### Context of the Study

The rapid development of Information and Communication Technology (ICT) has transformed the medium of instruction adopted by academicians to deliver the course content. Most of the teacher educators aiming at effective and joyful learning often intend for a blended approach where e-learning coincides with traditional face-to-face learning. Is this blended approach better than the conventional face-to-face approach? Is blended teaching an effective tool for learning the pedagogy of the English language in a Bachelor of Education (B. Ed) course? Can any significant differences be found between the mean achievement scores of the students learning the pedagogy of the English language based on teaching style, blended or traditional? The present study sought to answer these questions.

### Objectives of the Study

The objectives of the present study can be stated as follows:

- To compare the mean achievement scores of the experimental and the control groups before the

experimental treatment.

- To compare the mean achievement scores of the experimental and the control groups after the experimental treatment.
- To compare the mean achievement scores of the experimental group before and after the experimental treatment.
- To suggest an effective method for teaching English language pedagogy based on the findings of the study.

### Hypotheses

The study has tested the following hypotheses:

**H<sub>0</sub> 1:** There is no significant difference between the mean achievement scores of the experimental and the control groups before the experimental treatment.

**H<sub>0</sub> 2:** There is no significant difference between the mean achievement scores of the experimental and the control groups after the experimental treatment.

**H<sub>0</sub> 3:** There is no significant difference in the mean achievement scores of the experimental group before and after the experimental treatment.

### Significance of the Study

The significance of the study stems from the following considerations:

According to the American Society for Training and Development, blended teaching-learning is one of the top ten knowledge delivery trends (Bawadi, 2009).

Teachers, as we all know, are the engineers of our society. As a result, in a teacher training institution, a mixed approach to teaching and learning will assist student

teachers in becoming effective and competent instructors for our future society.

Instilling in all teacher training institutions a culture of blended teaching to achieve the "ideal" language learning environment.

Teacher educators will gain an understanding of the efficacy of a blended approach, while teaching the pedagogy of the English language to students.

## Literature Review

Several research studies have been carried out to find various aspects of blended teaching methodologies in the context of English language learning.

**Harker and Koutsantoni** (2005) investigated the impact of blended learning on the effectiveness of English for Academic Purposes (EAP) curriculum for students of various ethnic origins. Comparisons on student retention, achievement levels and satisfaction with the program between the two groups suggested that performance and satisfaction levels were similar in the two groups, the blended learning model being significantly superior only in terms of student retention.

Faced with the need to teach English to a large number of students, **Banados** (2006) developed an innovative Communicative English Program using ICT at the Universidad de Concepción in Chile, consisting of four modules taught across four academic terms. The results demonstrated that the blended learning model, combined with an online interactive multimedia language learning environment, was effective in enhancing students' language skills

According to **Badawi** (2009), blended learning is effective in strengthening prospective teachers' pedagogical knowledge. However, in terms of gaining prospective teachers' pedagogical

performance, there was no significant difference between face-to-face and blended learning.

**Dowling, Godfrey, and Gyles** (2010) explored the connection between students' learning results and two different teaching models: traditional face-to-face and hybrid flexible delivery. According to the findings, the hybrid flexible delivery model increased learning outcomes and was more positively associated with students' final grades.

**Yoon and Lee** (2010) explored students' opinions and the effectiveness of blended learning as a teaching technique in an ESL writing session. Blended learning improved students' writing skills and motivation, as well as promoted skills such as interaction, autonomy, and collaboration.

**Pardede** (2012) reviewed existing ideas, practices, and empirical information concerning the nature of blended learning in general and Computer-Assisted Language Learning (CALL), a version of blended learning mainly used in English Language Teaching (ELT), in particular. The study showed that CALL with its variety of activity types enhanced EFL students' achievement.

**Al Zumor** (2013) investigated English as a Foreign Language (EFL), students' views regarding the advantages and limitations of merging the features of face-to-face language instruction and online language learning via the Blackboard learning management system. The author measured the correlations among students' grade point average (GPA), experience with blended learning and computer literacy. The result showed the clear advantages of the new experience, i.e. blended learning in improving and enriching students' English language skills.

**Alseweed** (2013) looked into the effects of traditional, blended, and

virtual classroom learning on university students' achievement and attitudes. Results indicated significant differences among the instructional approaches in the achievement test scores and students' attitudes in favour of blended learning.

**Banditvilai** (2016) did a case study to examine the role of blended learning in improving English learners' language abilities and learning autonomy. The findings suggested that using an online approach in conjunction with classroom training enhanced language learners' language skills, and their autonomy and motivation.

**Ghazizadeh and Fatemipour** (2017) investigated the impact of blended learning on the development of reading skills among Iranian English language learners in a quasi-experimental study. The researchers discovered that blended learning had a statistically significant positive effect on EFL learners' reading proficiency after comparing the two groups, experimental and control, using a t-test.

**Tawil** (2018) did a meta-analysis on the blended learning strategy and its application in language instruction. According to the findings, blending learning improved the learner's experience of a new language and increased efficiency in communication and practice.

The above review of the literature reveals that the blended approach became a core research area for many scholars. Although there is enough theoretical and procedural evidence on the blended approach of teaching-learning favouring its effectiveness, no

studies have examined the effectiveness of using the blended teaching approach on students' achievement to learn the pedagogy of the English language in a teacher training college. This aids the researchers conducting the present study.

**Methodology**

**Variable**

The study included the following variables:

- (a) Independent variables are the two types of teaching approaches, one blended and another is face to face or traditional.
- (b) Achievement test in English is taken as the dependent variable.

**Sample**

The sample of the study consisted of 28 B. Ed students in English from Hooghly B. C. Roy Institute, a teacher training college. All these selected participants were randomly divided into two equivalent groups where; the first was the experimental and the second was the control group, and they studied the pedagogy of the English language via blended and traditional teaching approaches, respectively.

**Research Design**

An experimental research design with pretest-posttest equivalent groups is chosen by the researchers for the present study. The study followed a pre-test, treatment, and post-test procedure. This design is expressed as follows:

**Table-1: Design of the Study**

Group	Pretest Score	Treatment	Posttest Score
Experimental	O <sub>1</sub>	X <sub>1</sub>	O <sub>2</sub>
Control	O <sub>3</sub>	X <sub>2</sub>	O <sub>4</sub>

[Here,  $X_1$  is the Blended Teaching Approach and  $X_2$  is Traditional Teaching Approach]

## Tools

**Blended Learning Course:** The researchers developed a blended learning course based on four topics of the pedagogy of the English language and prepared different study materials like audio-visual videos, PowerPoint slides, and the Google Meet platform were used for online learning.

**Achievement Test:** A self-made achievement test was constructed by the researchers which consist of twenty questions with four options for each one from the topics covered under the area of pedagogy of the English language.

## Study Procedures

The study was applied according to the following procedures:

The researchers constructed an achievement test based on the basic knowledge regarding the pedagogy of the English language and applied it to both the groups, i.e. experimental and control to ensure homogeneity of the samples.

The students of the experimental group were taught the pedagogy of the English language through a blended approach of teaching-learning for four weeks. This blended course was designed by the researchers to provide the basic knowledge and practices of pedagogy of the English language to the students of the B. Ed course. Four topics were selected from the prescribed syllabus of The University of Burdwan B. Ed 2<sup>nd</sup> Semester. The topics were: Methods and approaches to teaching English, Simulated teaching with its skills and component areas,

Pedagogical analysis of the English language and Utilization of learning resources in language teaching. The researchers developed different study materials including videos, PowerPoint presentations, etc. from the selected topics and uploaded them on the WhatsApp group, made particularly for the students of the blended course. Besides attending regular face-to-face learning the students received online synchronous learning on the Google Meet platform.

At the same time, students of the control group were instructed on the same topics using the regular educational materials, i.e. textbooks and a traditional face-to-face approach.

After the completion of different approaches to teaching-learning to both groups, an achievement test was administered. The researchers calculated the mean scores from the pre and post-achievement tests and employed a t-test through Statistical Package for the Social Sciences (SPSS).

## Data Collection

According to the study procedures, the researchers collected empirical data from the participants using achievement tests.

## Results and Discussion

To test the hypotheses of the study and determine the effectiveness of using a blended teaching approach on students' achievement, descriptive statistics such as mean, standard deviation and both independent and dependent sample t-tests were employed.

**Null Hypothesis 1:**

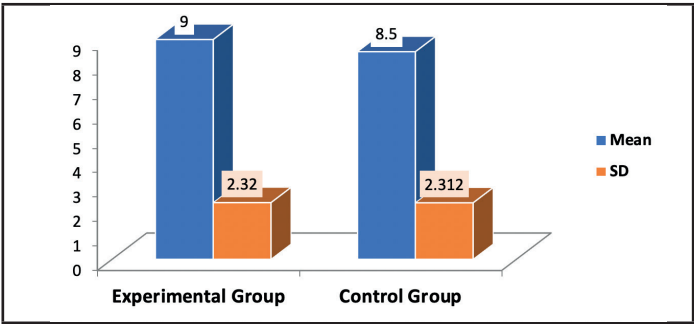
**Table-2: Significance of Difference between Mean Scores of the Experimental and Control Groups on Pre Achievement Test (O<sub>1</sub> and O<sub>3</sub>)**

Group	N	Mean	Std. Deviation	Std. Error Mean	Std. Error Difference	t	df	Sig 2-tail
Experimental	14	9	2.320	0.620	0.875	0.571	26	0.573
Control	14	8.5	2.312	0.617				

Table 2 demonstrates the similar mean scores of both the experimental and control groups, i.e. 9 and 8.5 respectively on the pre-achievement test. Here, the computed value of t, i.e. 0.571 is quite smaller than the critical table values 2.06 and 2.78 with 26 degrees of freedom at 0.05 and 0.01 levels of significance, respectively. So, the result is insignificant and the null hypothesis cannot be rejected. The result assures that there

is no significant difference between the mean scores of the experimental and control groups before treatment. The two groups were equal in terms of their basic knowledge regarding the pedagogy of the English language which in turn assures sample homogeneity before the experimental treatment. The below pictorial representation explicitly justifies the null hypothesis.

**Figure-1: Achievement Scores of the Experimental and Control Groups before Treatment**



**Null hypothesis 2:**

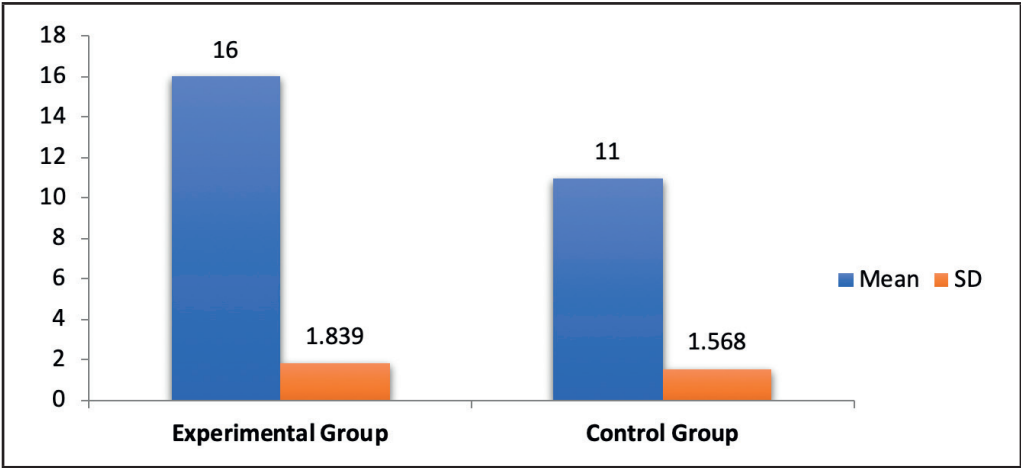
**Table-3: Significance of Difference between Mean Scores of the Experimental and Control Groups on Post Achievement Test (O<sub>2</sub> and O<sub>4</sub>)**

Group	N	Mean	Std. Deviation	Std. Error Mean	Std. Error Difference	t	df	Sig 2-tail
Experimental	14	16	1.839	0.491	0.646	7.737	26	0.000
Control	14	11	1.568	0.419				

As displayed in Table 3, the mean score of the experimental group 16 is higher than the mean score of the control group 11 on the post-achievement test. Here, the computed value of  $t$ , i.e. 7.737 exceeds the critical table values 2.06 and 2.78 with 26 degrees of freedom both at 0.05 and 0.01 levels of significance, respectively. Therefore, the result is statistically significant and the null hypothesis is rejected at both levels of significance. The result shows a significant difference between

the mean achievement scores of the experimental and the control group after receiving the treatment. The difference between the mean scores is entirely trustworthy and dependable to say that the blended approach is more effective as a teaching method than the traditional face-to-face method. The following graphical presentation depicts higher achievement scores of the experimental group, which supports the use of blended teaching methods.

**Figure-2: Achievement Scores of the Experimental and Control Groups after Treatment**



**Null Hypothesis 3:**

**Table-4: Significance of Difference between Mean Scores of the Experimental Group on Pre and Post-Achievement Tests ( $O_1$  and  $O_2$ )**

Group	N	Mean	Std. Deviation	Std. Error Mean	Std. Error Difference	$t$	$df$	Sig 2-tail
Experimental	14	9	2.320	0.620	0.288	-10.429	13	0.000
Control	14	11	1.839	0.491				

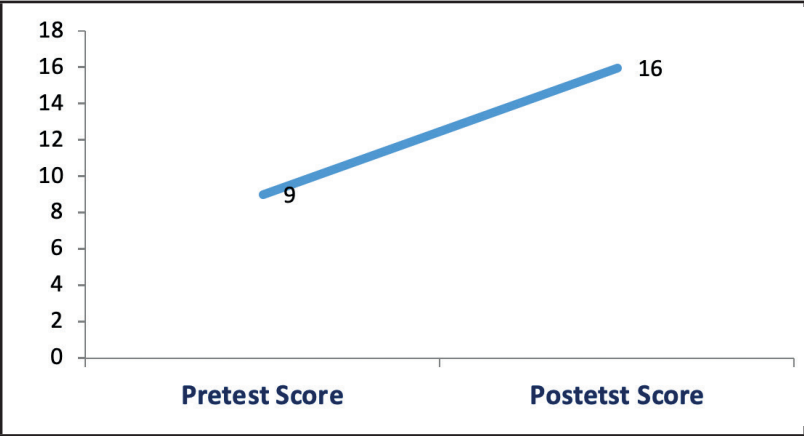
As shown in Table 4, the mean score of the experimental group, i.e. 16 on the post-achievement test is higher than the mean score i.e. 9 of the same group on the pre-achievement test. For the significance at the 5 per

cent and 1 per cent levels, the critical table values are 2.16 and 3.01 with 13 degrees of freedom, respectively. Here, the computed value of  $t$  i.e. -10.428 crosses the critical table values at 0.05 and 0.01 levels of significance. Hence,

it is to be taken as significant, resulting in the rejection of the null hypothesis. Consequently, it can be said that there exists a significant difference between the pre and post-achievement test scores. The significant difference

between the mean scores helps to justify that the blended teaching approach proves more fruitful than the regular teaching method. The improved mean achievement score of the experimental group is highlighted in figure-3.

**Figure-3: Pre-test and Post-test Scores of the Experimental Group**



The result shows that learning in a blended environment is more effective and valuable than the traditional teaching-learning method. The findings reveal that the students who learned using a blended approach performed better and secured higher scores in their achievement tests. A blended approach provides the optimum conditions for students to be successful. Therefore, the result of the study implies some suggestions for language teachers to use different teaching approaches so that the learning becomes fruitful and effective.

**Conclusion**

This study has investigated the learning outcome of the students taught with traditional and blended approaches in a teacher training college. The findings in favour of the blended teaching approach indicate that a blended course provides a comprehensive and comparable learning environment to traditional teaching-learning. It creates a harmonious balance between face-

to-face human interaction and online access to learning. Regarding this once Hinkelman (2005) remarked:

‘Blended’ is not a single approach or a separate alternative to online/ classroom environments, but rather a flexible continuum of various language learning environments. In such a paradigm, there can be no definition of an ‘online task’ that is separate from a ‘classroom task’. The aim of blended learning is then to span this continuum, defining and describing tasks that encompass the different environments. (p. 19)

Such an approach indeed provides the optimum environment for the students of the English language to learn with more interaction and collaboration. As Kocoglu, Ozek and Kesli (2011) commented, “by combining online classes and face-to-face learning, a teacher education program can increase its convenience, flexibility, access, and efficiency while maintaining the quality of the program” (p.1131). As a result, the



findings of this study may encourage teacher educators to incorporate the blended approach into their teacher training programmes, particularly in the pedagogy of the English language.

## Recommendations

This study recommends the following based on the results:

In view of the study's findings, which show that students perform better when a blended teaching strategy is used, computerised teaching and traditional face-to-face teaching methods must be used in the classroom when teaching English.

Further, studies on students' motivational aspects and attitudes towards blended learning, virtual learning, and traditional learning are suggested to be conducted in the future.

More research is needed to address the various teaching-learning approaches that use e-learning environments in conjunction with other English courses.

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