Available on https://www.gyanvihar.org/researchjournals/ctm_journals.php
SGVU International Journal of Convergence of Technology and Management
E-ISSN: 2455-7528
Vol.10 Issue 2 Page No 114-119

A Study on Effects of Blended Learning Approach on The Performance of Students

[1] Apeksha Sharma, [2] Dr.Rajani Chopra

[1] Research Scholar, Department of Education, Suresh GyanVihar University, Jaipur, Rajasthan
[2] Supervisor, Department of Education, Suresh GyanVihar University, Jaipur, Rajasthan

Abstract:-

The main objective of the study was to study the impact of blended learning approach on achievement in English subject at primary level. The nature of the current investigation is experimental. The students were divided in two groups of Pre-test Post-test. In the study, a sample of 70 students studying at upper primary level was drawnrandomly. A self-developed English performance test has been used for data collection. Mean, SD and t-test has been used to compare pre-tests and post-tests of control and experimental groups.The findings of the study revealed that the blended learning approach has enhanced the performance of students in English.

Keywords : Blended Learning, performance& English

INTRODUCTION

In recent years, there has been a global shift in education due to the rapid advancements in information and communications technologies (ICTs). In an effort to improve education, India is likewise making an effort to capitalize on this technological revolution. With regard to addressing the current educational challenges—such as limited access to high-quality postsecondary education—these technologies provide a great deal of optimism.With each generation, technological advancements have transformed our lives and made them more and more integral. As a result, educational institutions must adapt new teaching strategies while upholding the highest standards of instruction. These strategies include electronic (e-learning), online or web-based, and problem-solving-based learning, which move the focus of instruction from being primarily teacher-centered and product-based to more student-centered and process-based.Using this method, students are encouraged to participate actively in their education as opposed to being passive recipients of knowledge.

Teaching, learning, and technological integration are required, not optional, and any less would be professional irresponsibility, according to Ford et al. Even though the cost is a major obstacle, these kinds of inventions can significantly influence self-directed learning, particularly in situations when human resources are limited.In the year 2000, the notion of "blended learning" was introduced. With the use of technology, blended learning has evolved from a theory to a crucial component of traditional education. Although there are various labels for blended learning, "hybrid" is the most often used one. Flexible learning is another name for blended learning. The combination of teaching and learning modalities, approaches, and strategies is known as blended learning. It is the result of combining online and in-person instruction.

Correspondence to: Rajani Chopra, School of Education, Suresh Gyan Vihar University, Jaipur
Corresponding author. E-mail addresses: rajni.chopra@mygyanvihar.com

REVIEW OF RELATED LITERATURE

Kaur, Ravneet (2023) studied on effect of blended learning strategies on achievement and self- esteem of elementary school students. The study reviewed the blended learning, achievement and self-esteem literatures to find out the effect of blended learning on achievement and self- esteem of elementary school students. The data was collected from 100 students of class VII from schools affiliated to Punjab School Education Board of Amritsar were the participants of the study. The students were divided in two groups of 50 students each. Pre-test Pos-test Control Group design was implies to study the significance of difference between means scores on achievement of experimental and control group. The control group was taught using traditional approach and the experimental group was taught using the Blended Learning Strategy. The analysis revealed that mean gain score on achievement and self-esteem of experimental group was significantly higher.

Asseke (2022) studied on The Efficacy of Blended Learning Approach on Students' Academic Achievement and Retention Ability in Genetics. The study examined the efficacy of Blended learning approach on students' academic achievement and retention ability in genetics as a difficult concept in Biology in education district. The study adopted a true experimental design. The result from ANCOVA giving the value of 0.00 which is less than 0.05 showed a statistically significant difference in the academic achievement of students taught Genetics using the BLA and those taught using the lecture method. There was no statistically significant difference in the retention ability scores of both groups. However, the study also revealed that gender does not have any significant effect On the academic achievement and retention ability of the students. Result from the chi-square made it known that teachers showed interest and supported the use of the Blended learning Approach to improve students' academic achievement and retention ability in biology. Finally, conclusions, useful recommendations and suggestions for further studies were highlighted.

Kaul, P. (2022) studied the Impact of Blended Learning Approach on the Academic Achievement of Students in Science. The aim of this study was to assess the effectiveness of blended learning approach on academic achievement in science of students of elementary VII class. It was found that the achievement of the students taught through blended learning was statistically significantly better than traditional learning .The findings suggest that elementary students are open to new methods of learning. The blended learning approach is an effective method for teaching science and may be applicable to other school subjects.

Alajmi, M.M. (2021) studied on The Effect of Blended Learning on the Degree of Students' Acquisition of Geography Skills for the Eleventh Level at the Secondary Stage in Kuwait. The present study aimed to investigate the effect of using a blended learning instructional strategy on the degree of acquisition of geography skills by eleventh-level students during the first semester of the 2021/2022 academic year. The result revealed the superiority of blended learning in terms of the high degree of learners' acquisition of geography skills in favor of the experimental group. In addition, the effect size of using blended learning was large. Furthermore, the findings showed that there were statistically significant differences between the mean post-test scores of the two groups in geography facts, concepts, and skills in favor of the experimental group. The study concludes with recommendations related to employing blended learning in geography teaching to increase student achievement.

Bazar, H. A. (2021**)** studied the Impacts of Blended Learning Systems on Aou Students' Satisfaction: An Investigational Analysis of KSA'S Branch. In this study, a comprehensive online questionnaire is used to assess the impact of blended learning based on seven factors of the blended learning environment. The results reveal that students are mostly satisfied with the blended learning factors, particularly, with the convergence of the Face-to-Face and Videoconferencing classes and the role of their instructors. Those students are moderately satisfied with the SIS, the online forums, and their course materials and modules, and least satisfied with the LMS and the E-library factors. Accordingly, the suggested recommendations pertaining to the future research are highlighted where this paper offers useful insights for future researchers based on different empirical evidences.

OBJECTIVE OF THE STUDY

To study the effects of blended learning approach on the performance of students.

HYPOTHESISOF THE STUDY

The purpose of the study was to investigate the following theory:

1 There is no significant in the performance (Pre-test) of the experimental and control group in English.
2 There is no significant in the performance (Post-test) of the experimental and control group in English.

Correspondence to: Rajani Chopra, School of Education, Suresh Gyan Vihar University, Jaipur
Corresponding author. E-mail addresses: rajni.chopra@mygyanvihar.com

3 There is no significant in the performance (Pre-test & Post-test) of the experimental group in English.

4 There is no significant in the performance (Pre-test & Post-test) of the control group in English.

STUDY DESIGN

The nature of the current investigation is experimental. The students were divided in two groups of Pre-test Post-test.In the study, a sample of 70 students studying at upper primary level was drawnrandomly.A self-developed English performance test has been used for data collection. Mean, SD and t-test has been used to compare pre-tests and post-tests of control and experimental groups.

ANALYSIS OF THE DATA

Hypothesis 1- There is no significant in the performance (Pre-test) of the experimental and control group in English.

Table 1: Performance (Pre-test) of the experimental and control group in English

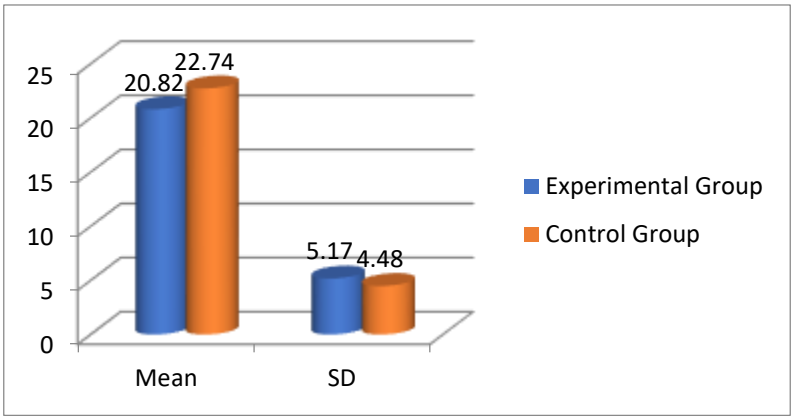
Variable (Achievement Tests)	N	Mean	SD	df	Observed t-value	Table Value	Significant/Non-Significant
Experimental Group	40	20.82	5.17	68	1.66	1.99	**Non-Significant**
Control Group	30	22.74	4.48				

***N= Number of students, SD= Standard Deviation, df= Degree of freedom**

Interpretation:

According to Table 1, the experimental group's mean is 20.82, while the control group's is 22.74. For the experimental group, the SD is 5.17 and for the control group, the SD is 4.48. Although there is not much of a difference, it is clear that the experimental group's students achieve more than those in the control group.Additionally, while the observed t value is 1.66, the table value of t is 1.99. There are 68 degrees of freedom. The observed t value is smaller than the table value of 1.99 at the 0.05 level of significance, where the hypothesis is accepted. Therefore, it proves that there is no significant in the performance (Pre-test) of the experimental and control group in English.

Graph 1: Mean & SD of Performance (Pre-test) of the experimental and control group in English



Hypothesis 2 -There is no significant in the performance (Post-test) of the experimental and control group in English.

Correspondence to: Rajani Chopra, School of Education, Suresh Gyan Vihar University, Jaipur
Corresponding author. E-mail addresses: rajni.chopra@mygyanvihar.com

Table 2: Performance (Post-test) of the experimental and control group in English

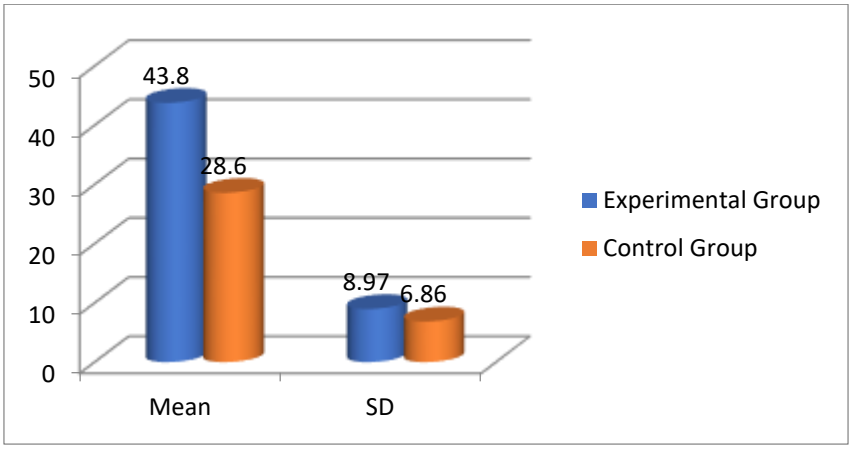
Variable (Achievement Tests)	N	Mean	SD	df	Observed t-value	Table Value	Significant/Non-Significant
Experimental Group	40	43.80	8.97	68	8.03	1.99	**Significant**
Control Group	30	28.60	6.86				

***N= Number of students, SD= Standard Deviation, df= Degree of freedom**

Interpretation:

According to Table 2, the experimental group's mean is 43.80, while the control group's is 28.60. For the experimental group, the SD is 8.97 and for the control group, the SD is 6.86. Although there is much of a difference, it is clear that the experimental group's students achieve more than those in the control group.Additionally, while the observed t value is 8.03, the table value of t is 1.99. There are 68 degrees of freedom. The observed t value is greater than the table value of 1.99 at the 0.05 level of significance, where the hypothesis is rejected. Therefore, it proves that there is significant in the performance (Post-test) of the experimental and control group in English.

Graph 2: Mean & SD of Performance (Post-test) of the experimental and control group in English



Hypothesis 3- There is no significant in theperformance (Pre-test & Post-test) of the experimental group in English.

Table 3: Performance (Pre-test & Post-test) of the experimental group in English

Variable (Achievement Tests)	N	Mean	SD	df	Observed t-value	Table Value	Significant/Non-Significant
Pre-test	40	20.82	5.17	78	14.04	1.99	**Significant**
Post-test	40	43.80	8.97				

***N= Number of students, SD= Standard Deviation, df= Degree of freedom**

Interpretation:

According to Table 3, the experimental group's pre-test mean is 20.82, while the post-test's is 43.80. For the same group SD is 5.17 and 8.97. Although there is much of a difference, it is clear that the experimental group's students in post-test achieve more than pre-test.Additionally, while the observed t value is 14.04, the table value of t is 1.99. There are 78 degrees of freedom. The observed t value is greater than the table value of 1.99 at the 0.05 level of significance, where the hypothesis is rejected. Therefore, it proves that there is significant in the performance (Pre-test & Post-test) of the experimental group in English.

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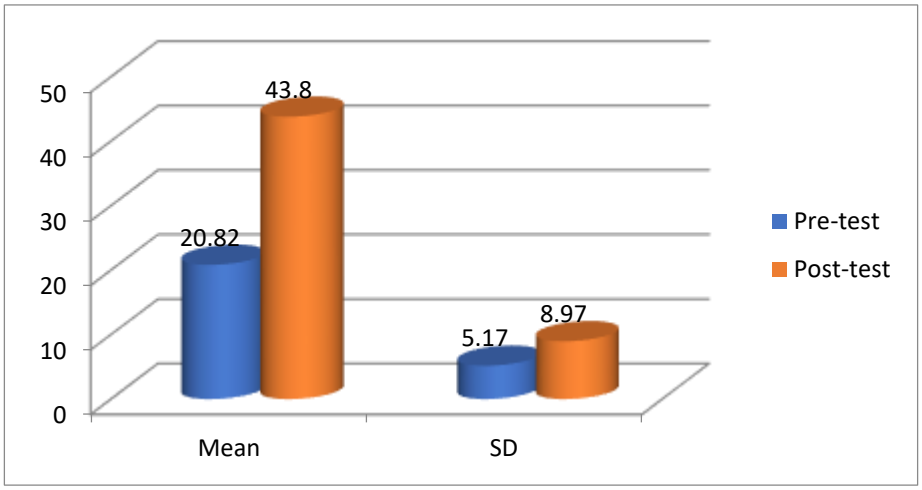
Graph 3: Mean & SD of Performance (Pre-test & Post-test) of the experimental group in English



Hypothesis 4- There is no significant in the performance (Pre-test & Post-test) of the control group in English.

Table 4: Performance (Pre-test& Post-test) of the control group in English

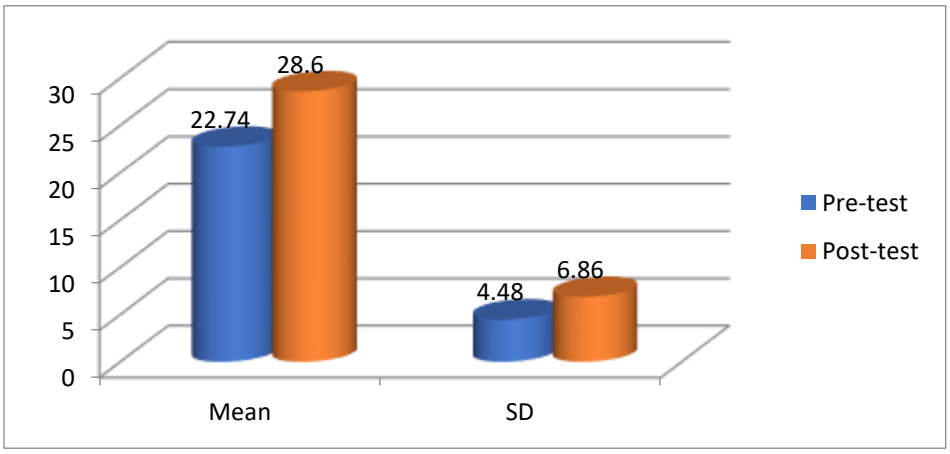
Variable (Achievement Tests)	N	Mean	SD	df	Observed t-value	Table Value	Significant/Non-Significant
Pre-test	30	22.74	4.48	58	3.92	2.00	**Significant**
Post-test	30	28.60	6.86				

***N= Number of students, SD= Standard Deviation, df= Degree of freedom**

Interpretation:

According to Table 4, the control group's pre-test mean is 22.74, while the post-test's is 28.60. For the same group SD is 4.48 and 6.86. Although there is much of a difference, it is clear that the control group's students in post-test achieve more than pre-test.Additionally, while the observed t value is 3.92, the table value of t is 1.99. There are 58 degrees of freedom. The observed t value is greater than the table value of 1.99 at the 0.05 level of significance, where the hypothesis is rejected. Therefore, it proves that there is significant in the performance (Pre-test & Post-test) of the control group in English.

Graph 4: Mean & SD of Performance (Pre-test& Post-test) of the control group in English



CONCLUSION

Correspondence to: Rajani Chopra, School of Education, Suresh Gyan Vihar University, Jaipur
Corresponding author. E-mail addresses: rajni.chopra@mygyanvihar.com

Using a blended learning approach in primary school has proven to be a beneficial technique when compared to the traditional method of teaching and learning, as evidenced by the study's findings.Blended learning has been shown to improve learning, information dissemination, networking, and the establishment of learner communities while also assisting students in selecting the best content, despite its initial promotion as a way to save costs and boost efficiency. Blended learning changes the role of the instructor from one of knowledge disseminator to one of facilitator, enabling adaptive, collaborative learning. For this reason, a blended learning method that is, a combination of traditional and online learning—creates a more integrated approach for teachers and students.

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Correspondence to: Rajani Chopra, School of Education, Suresh Gyan Vihar University, Jaipur
Corresponding author. E-mail addresses: rajni.chopra@mygyanvihar.com