



ATTITUDE TOWARDS BLENDED LEARNING AMONG THE UNDER-GRADUATE LEVEL STUDENTS IN PURULIA DISTRICT

Dr. Madhumita Baidya¹, Ananya Baidya², Nabin Kumar³

¹Assistant Professor, Department of Education, Sidho-Kanho-Birsha University, Purulia, West Bengal, India

²Research Scholar, Department of Education, Sidho-Kanho-Birsha University, Purulia, West Bengal, India

³MA Student, Department of Education, Sidho-Kanho-Birsha University, Purulia, West Bengal, India

Article DOI: <https://doi.org/10.36713/epra25715>

DOI No: 10.36713/epra25715

ABSTRACT

In recent years, integration of technologies in the teaching-learning process has been an indispensable part of higher education across the nation. Blended learning approach is such a hybrid form of instructional process that incorporates both the conventional way as well as digital means to enhance the learning performance of the students. The present research study aimed to assess the attitude of under-graduate students towards the process of blended learning. The researchers employed descriptive survey method to obtain the opinion of the hundred students selected through stratified random sampling technique from one department of Arts and Science respectively of J.K. College, Purulia. Data were gathered by administering self-constructed attitude scale developed by the researchers. The study findings revealed that significant differences in attitude were found among the students towards such learning approach with respect to their stream and gender. Therefore, the present research may enable the educational stakeholders to implement the blended learning method successfully for bringing about improved learning experiences in the long run by evaluating the opinion of the students.

KEYWORDS: Blended Learning, Attitude of Under-Graduate Students, Educational Implications

INTRODUCTION

Presently age the concept of online learning process is becoming very familiar in education field. Blended learning is the sum of face-to-face learning method with that of online learning involving time and space dimension. Hence, sometimes it is called as "hybrid learning" or the "flipped classroom" process. Through this new method, students may achieve two possibilities side by side in a traditional classroom intertwined with technology mediated multimedia activity. Thus, such learning approach enables students to enjoy both methods and receive benefit from those. The learning process is characterized with full flexibility of the learners to access the online learning materials such as lectures, videos, documents, assignments etc. However, the rapid advancement of technology greatly impacts on the whole education system. In the contemporary situation, both education and technology cannot stand to be separated from each other that aims to personalize the learning experience of the learners.

Definitions of Blended learning

- Jones and Turner (2008) defined it as learning process involving education and education technology.
- According to Graham (2006), learning combining face to face instruction and computer mediated instruction is blended learning.
- Friesen (2016) defined it as the learning that combines internet system, digital media, and formal classroom system.

- In the words of Krasnova (2015), it is a teaching method that combines the following aspects-
 - A. Face to face teaching.
 - B. Online interactive collaboration
 - C. Approach of functional collaboration.

Therefore, blended learning represents both offline and online learning with assistance derived from digitally mediated multimedia sources that aims to increase its importance and efficiency in transmitting and completing the desired task in stipulated time. The development stages of blended learning study began its journey from 1840 onwards. In the 21st century, the Govt. as well as private institutions are very aware of the benefits of blended learning and its innovative technologies involved in the teaching-learning process.

BACKGROUND OF THE STUDY

Blended educational approach typically combines traditional learning methods with online learning activities. The background of the present study basically focuses on the attitude of the under-graduate students towards the blended learning. Such approach aims to offer complete flexibility and accessibility to learners, allowing them to access educational content and resources anytime and anywhere. This is particularly valuable in situation where physical attendance may be challenging or limited, such as during a pandemic, for remote learners or for individuals with other commitments. Such learning enables educators in tailoring appropriate instruction according to individual learners' capacities, needs, interests and learning styles. Such online components usually



provide adaptive learning pathways by allowing students to improve at own pace and receive feedback. This promotes a more inclusive and student-centered approach to education. such learning process incorporates a wide variety of interactive digital technologies and tools as well as multimedia educational resources to increase student engagement. Hence, this interactive simulation, videos, quizzes, and online discussion may create a more dynamic and immersive learning experience of the learner by fostering their active participation and deeper understanding about the learning phenomenon. A good range of research was conducted on blended learning to explore its effectiveness, implementation strategies, and impact on student outcomes. In various research studies, the researchers tried to investigate the impact of blended learning on student achievement, knowledge retention, skill development, and academic performance compared to their traditional classroom-based approaches. Hence, in the present study, the researchers attempted to study the attitude of student towards blended learning for making the learning approach effective and successful in the long run.

EMERGENCE OF THE PROBLEM

Blended learning is a teaching approach that has been gaining popularity in recent years. It has gained even more significance in recent times due to the COVID-19 pandemic. With the widespread adoption of online learning during lockdowns and school closures, educators and policymakers recognized the importance of blended learning as a viable model for delivering education. Researching and studying blended learning can help identify effective strategies, best practices, and lessons learned from this period to inform future educational approaches. By studying blended learning in the present context, researchers, educators, and policymakers can work towards optimizing educational practices, improving student outcomes, and shaping the future of education in a rapidly changing world. Hence it is necessary to assess the attitude of student towards such blended learning. Such study may enable the educational stakeholders to determine the effectiveness of blended Learning for student better learning outcomes.

SIGNIFICANCE OF THE STUDY

The significance of studying blended learning lies in the potential for improving teaching and learning outcomes, particularly in the context of the rapidly evolving digital age.

Blended learning process provided students with knowledge of using apps, games and other measurable programmes. Blended learning helped a student engage with material and learning concepts at the right time. Blended learning helped students engage with material at their own pace, which is considered an effective mode of learning. This learning provided students with flexibility. The blended learning process aims to increase student satisfaction, minimize stress, and foster deeper understanding about learning. This learning process allows teachers to engage more with students. This research applied to know the attitude Of UG students both for arts and science department.

Overall, studying blended learning is significant because it may lead to a comprehensive understanding of how to effectively integrate technology into teaching and learning for improving

the access to education, and thereby to enhance student outcomes.

LITERATURE REVIEW

Johnson (2013) conducted a study entitled "Students' Attitudes toward a Blended and Online Course: A Comparison of Students in a Traditional Classroom Writing Environment and Students in a Blended Writing Environment". **Objectives:** To investigate general prevailing attitudes of students. to blended classroom environment and online classroom environment **Methodology:** The study was conducted through a mixed method. **Results:** The result of the study showed that a large proportion of respondents favored both blended methods. and online course.

ZHU et al. (2013) conducted a study titled "Student Attitudes toward Online Learning in a Blended Course". **Objectives:** The main aim of the study was to identify the attitude of university students towards online learning in blended learning course. **Methodology:** In this study, the researcher used the questionnaire survey method. **Findings:** the result of the study revealed that the attitude of the students was more positive in such blended course.

AlAbdulkarim and Albarrak (2015) carried out a study to find out the attitudes and satisfaction of students about blended learning in health science. **Objectives:** The objectives of the study were to determine attitudes and satisfaction towards blended learning used in courses at the College of Applied Sciences, King Saud University. **Methodology:** The study employed a combined quantitative-qualitative design. The sample of the study included 51 female students from the Department of Rehabilitation Sciences **Results:** The results of the study showed a high positive attitude and motivation of the students towards the mixed model in learning the prevailing research course.

Bala (2016) conducted a study to know the attitudes of students towards blended learning in Iraq. **Objectives:** The objective of the study was to find out the attitudes of students using blended learning in a private high school in Iraq. **Methodology:** The study was conducted with the help of a questionnaire on a 5-point Likert scale. **Results:** The result of the study revealed that most of the students had a positive attitude.

Aladwan et al. (2018) conducted a study to find out student attitudes towards blended learning among university students. **Objectives:** The study aimed to find out student attitudes towards blended learning among Jordanian university students. **Methodology:** Undergraduates and graduate students from Jordon University participated in the study in the 2017-18 academic year. The sample was formed using a simple random sampling technique in a survey with 250 students (18-35 years). **Results:** The result of the study showed that blended learning is beneficial for students, and it was also revealed that such learning would be a more effective way of teaching- learning than the traditional one.

Birbal et al. (2018) conducted a study to find out the attitude of student teachers towards blended learning. **Objectives:** The



objectives of the study were to find out the attitude of the student towards several dimensions of blended learning. **Methodology:** The study employed quantitative techniques quantitative using survey methodology. A random sampling method was used to select 807 faculty members from two campuses in Trinidad. **Results:** The study findings revealed that the willingness of student teachers to participate in blended learning was relatively high.

Mahato et al. (2021) carried out a research study to find out the attitude of PG students towards blended learning. Objectives: The study aimed to assess the post-graduate students attitudes in blended learning. **Methodology:** The study employed the descriptive method. **Results:** The result of the study revealed that the attitude of PG students towards blended learning was medium (47.97%). Although there were almost equal numbers of students who had a mixed education attitude (41.22%) and only a few students (10.81%) had a high attitude.

Falah and Chairuddin (2022) conducted a study to find out the attitude of students towards blended learning through Google Classroom in a general English course. **Objectives:** The objectives of the study were to investigate the attitudes of students towards the implementation of blended learning, especially in the general English language course. **Methodology:** This study used a survey method. The sample for this study was the fifth semester of STKIP Muhammadiyah Kuningan Elementary School students, consisting of 92 students from three classes. **Results:** The result of the study revealed that most students (76.3%) had a positive attitude.

RESEARCH GAP

In this present study, the researcher studied reviews works carried out in the field of blended learning. After reviewing the several literatures, the researcher found that no work had been done to assess the attitudes towards blended learning among the UG level student in Purulia district. This study shows that blended learning has many implications for undergraduate students. The researchers noted that it was very important to know the level of attitude towards blended learning among the undergraduate students of Sidho-Kanho-Birsha University of Purulia district for successfully implementing the learning approach in the long run. So, the researcher decided to select the topic for the study purpose.

STATEMENT OF THE PROBLEM

The problem of the present study has been stated as follows-
“Attitude towards Blended learning among the UG Level Students in Purulia District.

OBJECTIVES

1. To find out the attitude towards Blended Learning among the arts & science at UG students.
2. To find out the attitudinal difference between male students of arts and male students of science at UG level towards Blended Learning.
3. To find out the attitudinal difference between female students of arts and female student of science at UG level towards Blended learning.

4. To find out the attitudinal difference between male students and female students of arts stream at UG level.
5. To find out the attitudinal difference between male students and female students of science stream at UG level.

HYPOTHESIS

- H₀₁**- There was no significant difference between arts and science at UG students in respect of their attitude towards blended learning.
- H₀₂**-There was no significant difference between male students of arts and science at UG level in respect of their attitude towards blended learning.
- H₀₃**- There was no significant difference between female students of arts and science at UG level in respect of their attitude towards blended learning.
- H₀₄**- There was no significant difference between male and female students of arts UG level in respect of their attitude towards Blended Learning.
- H₀₅**- There was no significant difference between male and female students of science at UG level in respect of their attitude towards Blended Learning.

OPERATIONAL DEFINITIONS OF THE KEY TERM

1. **Attitude:** - In the present study, attitude refers to the perception of the under-graduate students towards blended learning approach.
2. **Blended Learning:** - In the present study, blended learning refers to the teaching-learning process that prevailed in the classroom involving both traditional method and digital platform for learning.
3. **UG Student:** - In the present study, the Under graduate students refer to those who were pursuing their higher studies for bachelor's degree after completion of higher secondary education.

DELIMITATIONS OF THE STUDY

Due to the paucity of time, energy, and feasibility, the study was delimited to the following -

- The study was conducted only to Purulia district of west Bengal.
- The study was delimited only UG students in Purulia district.
- Study was delimited only to one college, J.K College in Purulia district.
- Study was delimited only to one department of Arts & Science respectively.

METHOD OF THE STUDY

A descriptive survey method was used in this study.

VARIABLES

Variables of the present study are-

1. Dependent Variables: Attitude
2. Independent Variables: a) Stream b) Gender

POPULATION OF THE STUDY

All the UG students of Purulia district treated as population for the present study.



SAMPLE OF THE STUDY

100 UG students (44 students of arts & 56 students of science) of Jagannath Kishor College in Purulia District of West Bengal were chosen as a representative sample of the entire population. The sample was chosen using the stratified random sampling technique.

SAMPLING TECHNIQUES

Stratified random sampling technique was followed for selecting the representative sample.

TOOLS OF THE STUDY

A self-made attitude scale in form of questionnaire was used to estimate the attitude of UG students towards blended learning.

CONSTRUCTION OF THE TOOL

Self-made attitude scale in the form of questionnaire was developed by the researchers. The tool was at first validated

through experts’ feedback and then the reliability co-efficient was measured by applying Cronbach’s alpha whose value was observed to be more than 0.70. Hence, the tool was said to be reliable for conducting the research study.

DATA COLLECTION PROCEDURE

The researcher took permission from the Head of the Concerned Departments for quantitative data collection from the UG students of J. K. College, Purulia, and West Bengal. Stratified random sampling was used for selection of samples. Necessary statistical techniques were being employed for analysis of data and their proper interpretation.

ANALYSIS OF DATA

Analysis of data pertaining to Hypothesis 1:

H₀₁: -There was no significant difference between arts and science at UG students in respect of their attitude towards blended learning.

Table-5.1: The statement showing the Mean, SD, and t- value attitude towards Blended Learning of Arts and Science (UG Student).

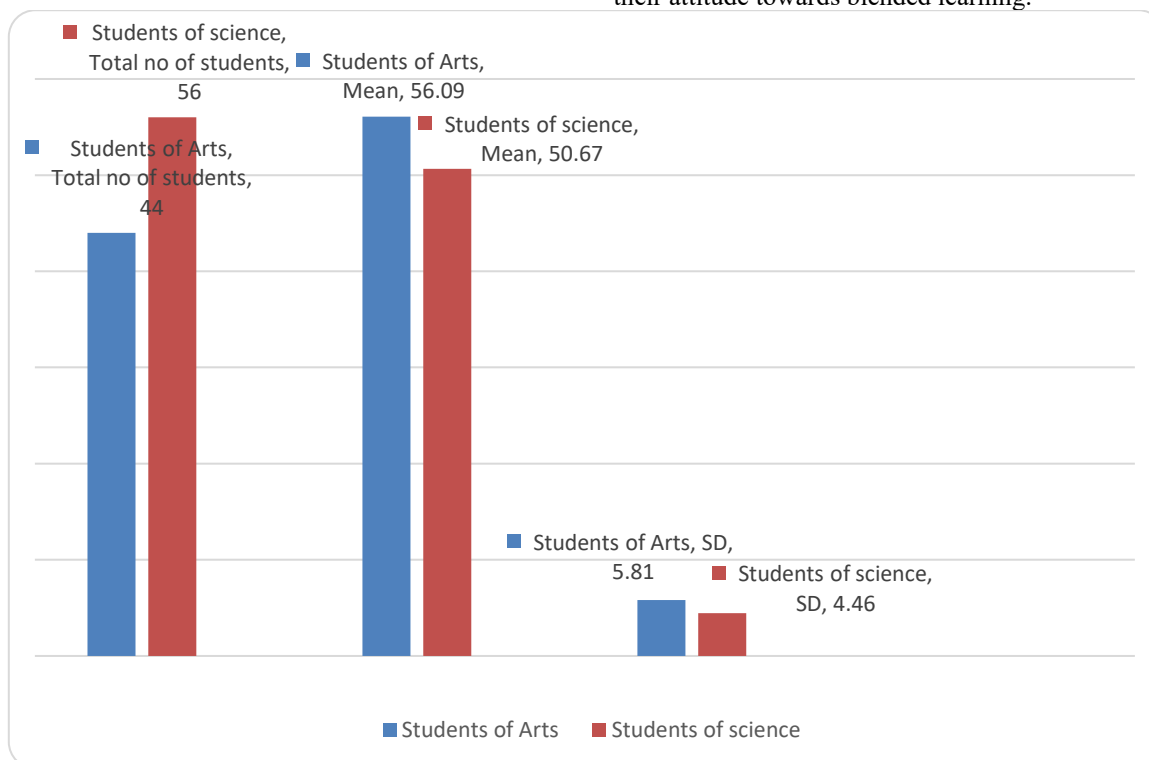
Variable	Stream	N	Mean	SD	df	Calculated t-value	Level of significance (table t- value)	Remark
Attitude	Arts	44	56.09	5.81	98	5.31	1.98(0.05)	Significant
	Science	56	50.67	4.46				

Interpretation

Entering the probability table of t-ratios, it is observed that the obtained value of t at df = 98 exceed the t value required at 0.05 level of significance. Therefore, the null hypothesis is rejected, that means there is significant difference between the students

of Arts and students of science in respect of their attitude towards Blended Learning.

Figure1: Showing the of Mean and SD of students of Arts and students of science stream at Under-graduate level in respect of their attitude towards blended learning.





Analysis of data pertaining to Hypothesis 2

H₀₂: -There was no significant difference between male students of arts and science at UG level in respect of their attitude towards blended learning.

Table-5.2: The statement showing the Mean, SD, and t- value attitude towards Blended Learning of Male Students of Arts and Science (UG Student).

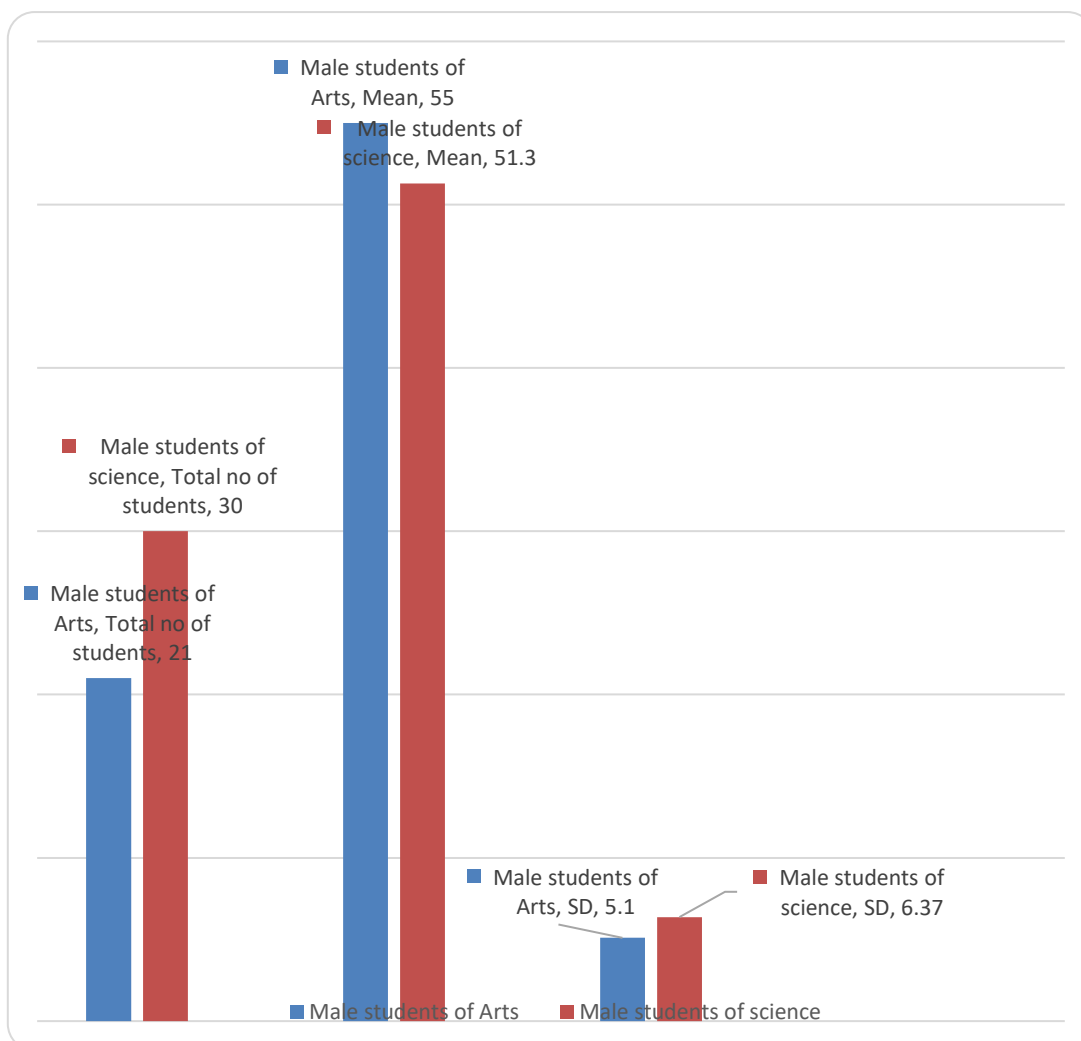
Variable	Gender	N	Mean	SD	df	Calculated t-value	Level of significance (table t-value)	Remark
Attitude	Male students of arts	21	55.00	5.10	49	2.25	2.01(0.05)	Significant
	Male students of science	30	51.3	6.37				

Interpretation

Entering the probability table of t-ratios, it was observed that the obtained value of t at df = 49 exceed the t value required at 0.05 level of significance. Therefore, the null hypothesis is rejected, that means there was significant difference between

the male students of Arts and male students of science in respect of their attitude towards Blended Learning.

Figure 2: Showing the Mean and SD of male students of Arts and male students of science stream at Under-graduate level in respect of their attitude towards blended learning.



Analysis of data pertaining to Hypothesis 3:

H₀₃: -There was no significant difference between female student of arts and science at UG level in respect of their attitude towards blended learning.

Variable	Gender	N	Mean	SD	df	Calculated t-value	Level of significance (table t-value)	Remark
Attitude	Female students of arts	23	57.08	6.27	47	4.45	2.02(0.05)	Significant
	Female students of science	26	49.96	5.21				

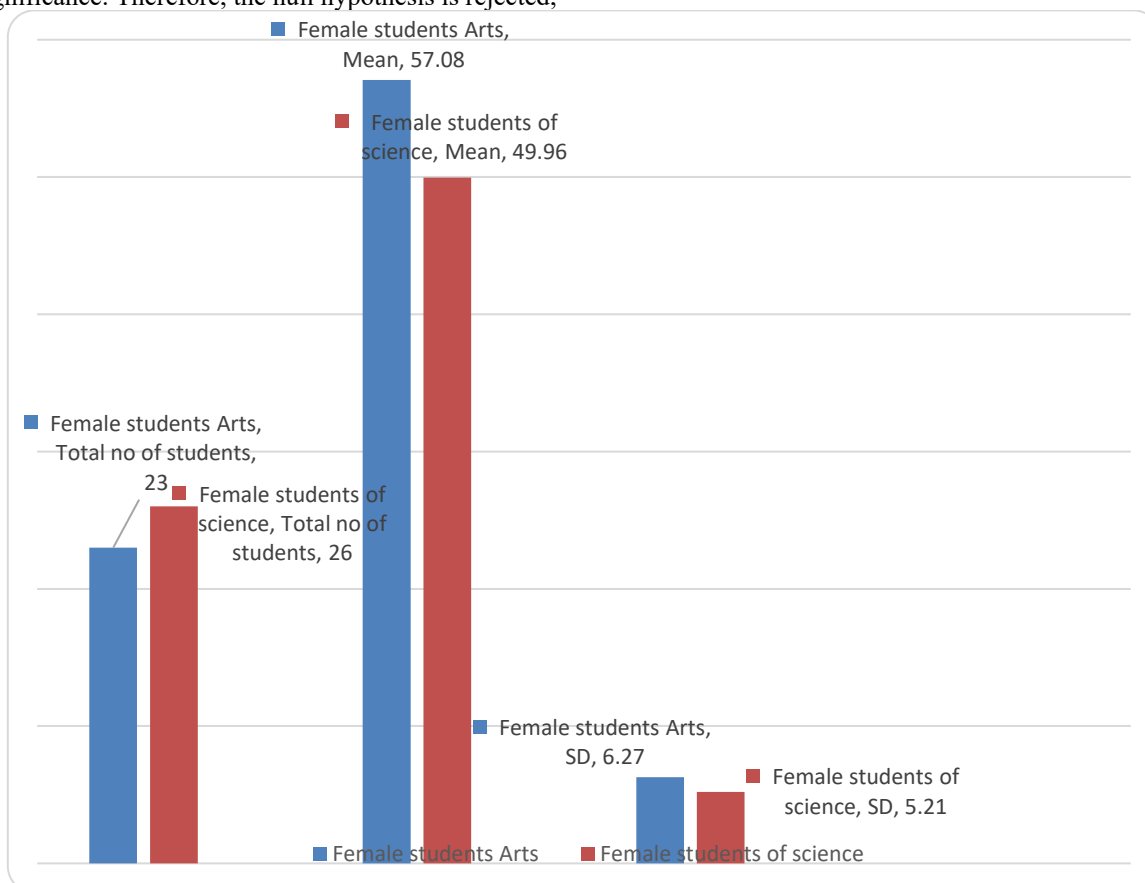
Table-5.3: The statement showing the Mean, SD, and t- value attitude towards Blended Learning of Female Students of Arts and Science (UG Student).

that means there is significant difference between the female students of Arts and female students of science in respect of their attitude towards Blended Learning.

Interpretation

Entering the probability table of t-ratios, it is observed that the obtained value of t at df = 47 exceed the t value required at 0.05 level of significance. Therefore, the null hypothesis is rejected,

Figure 3: Showing the Mean and SD of female students of Arts and female students of science stream at Under-graduate level in respect of their attitude towards blended learning.



Analysis of data pertaining to Hypothesis 4:

H₀₄: -There was no significant difference between male and female students of arts UG level in respect of their attitude towards blended learning.



Variable	Gender	N	Mean	SD	df	Calculated t-value	Level of significance (table t-value)	Remark
Attitude	Male students of arts	21	55.00	5.10	42	1.185	2.02(0.05)	Not Significant
	Female students of arts	23	57.08	6.27				

Table-5.4: The statement showing the Mean, SD, and t- value attitude towards Blended Learning of Male and Female Students Arts (UG Student).

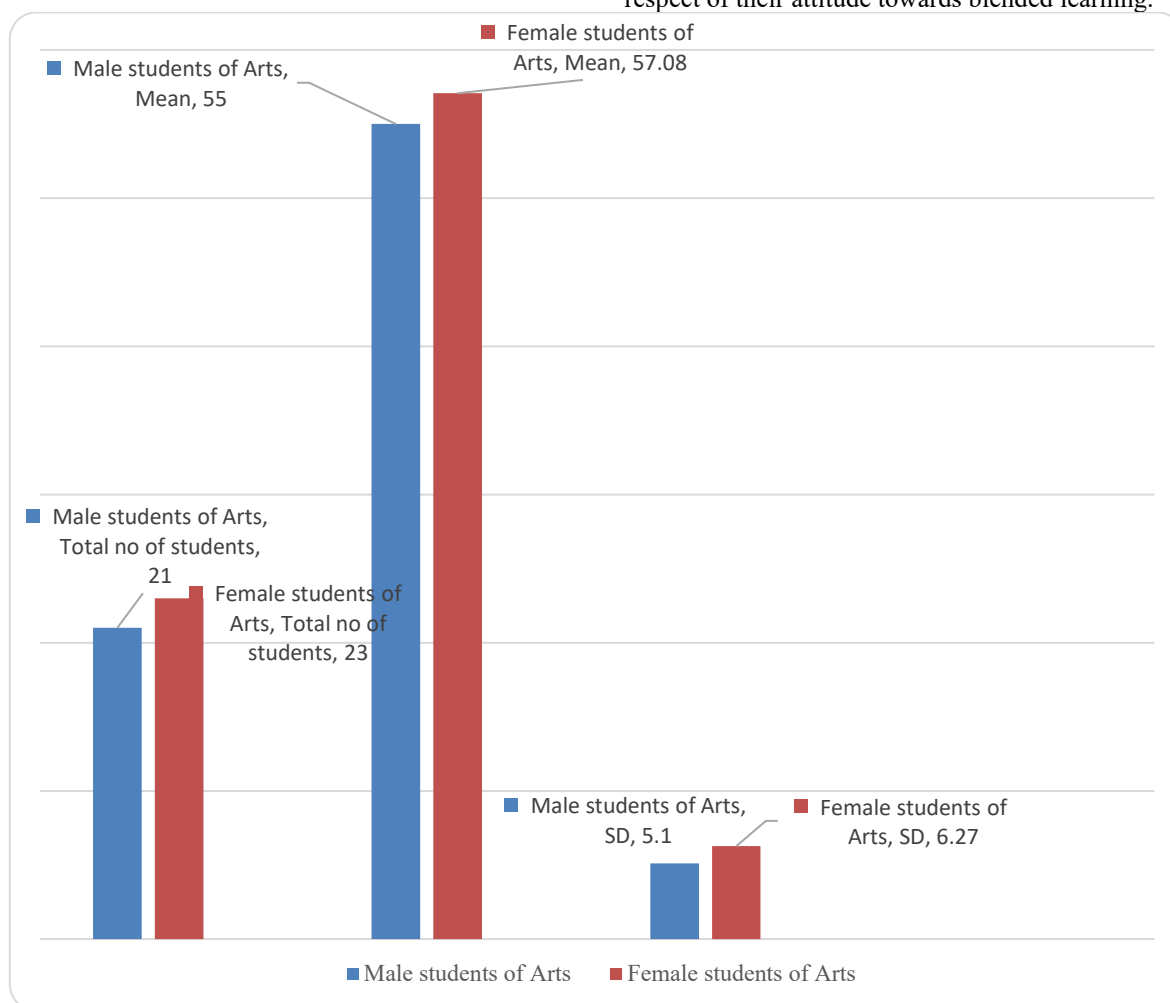
Interpretation

Entering the probability table of t-ratios, it is observed that the obtained value of t at $df = 42$ does not exceed the t value required at 0.05 level of significance. Therefore, the null hypothesis is accepted, that means there is no significant difference between the male students of Arts and female

students of Arts in respect of their attitude towards Blended Learning.

It has been observed from the mean score of the male (55.00) and female (57.08) students of Arts, that the female student may have positive attitude than the male student towards blended learning.

Figure 4: Showing the Mean and SD of male students of Arts and female students of Arts stream at Under-graduate level in respect of their attitude towards blended learning.



Analysis of data pertaining to Hypothesis 5: H₀₅: -There was no significant difference between male and female students of

science at UG level in respect of their attitude towards blended learning.



Variable	Gender	N	Mean	SD	df	Calculated t-value	Level of significance (table t-value)	Remark
Attitude	Male students of science	30	51.3	3.61	54	1.082	2.01(0.05)	Not Significant
	Female students of science	26	49.96	5.21				

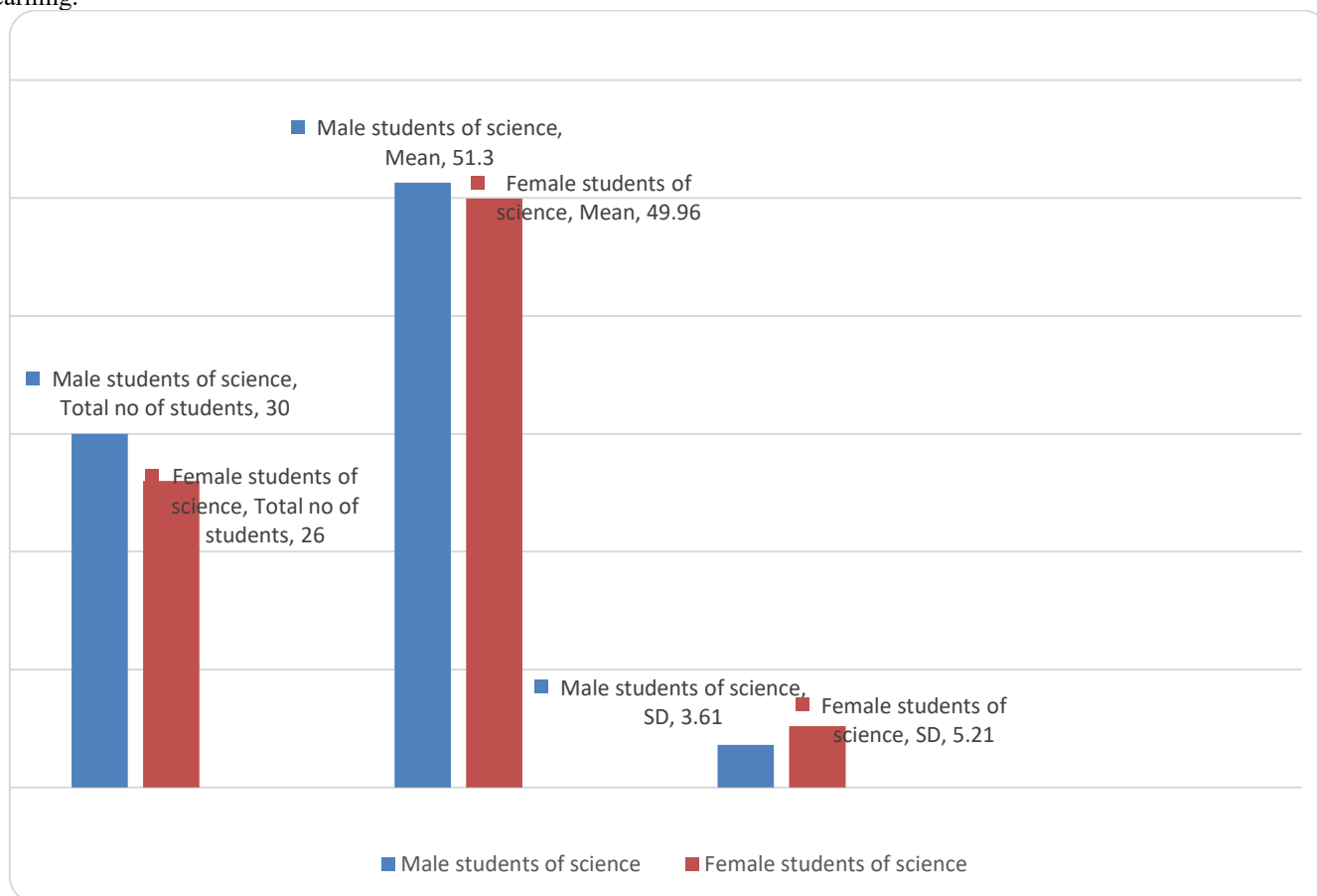
Table-5.5: The statement showing the Mean, SD, and t- value attitude towards Blended Learning of Male and Female Students Science (UG Student).

Interpretation

Entering the probability table of t- ratios, it is observed that the obtained value of t at df = 54 does not exceed the t value required at the 0.05 level of significance. Therefore, the null hypothesis is accepted, that means there is no significant difference between the male students of science and female students of science in respect of their attitude towards Blended Learning.

It has been observed from the mean score of the male (51.3) and female (49.96) students of science, that the male student may have positive attitude than the female student towards blended learning.

Figure 5: Showing the Mean and SD of male students of science and female students of science stream at Under-graduate level in respect of their attitude towards blended learning.



DISCUSSION

The present paper was an exploratory approach to measure the attitude of Under-Graduate students towards Blended Learning in relation to their gender and stream. The study revealed that

there was significant difference between the students of Arts and the students of Science at Under-graduate level students in respect of their attitude towards blended learning. According to mean score, Arts students (56.09) showed more positive



attitude towards blended learning as compared to the Science students (50.67). The study found that there was significant difference between male students of Arts and male students of Science at Under-graduate level in respect of their attitude towards blended learning. According to the mean score, male students (55.00) of Arts showed more positive attitude towards blended learning as compared to the male students of science (51.3). From the study, it is observed that there was significant difference between female students of Arts and female students of Science at Under-graduate level in respect of their attitude towards blended learning. According to the mean score female students (57.08) of Arts showed more positive attitude towards blended learning as compared to the female students of science (49.96). From the result of the study, it was found that there was no significant difference between male students of Arts and female students of Arts at Under-graduate level in respect of their attitude towards blended learning. Since the mean score of female students (57.00) of Arts was slightly greater than the male students (55.00) of Arts, hence, female students of Arts had positive attitude compared to the male students of Arts. The present study revealed that there was no significant difference between male students of science and female students of Science at Under-graduate level in respect of their attitude towards blended learning. Since the mean score of male students (51.3) of science was slightly greater than the female students of science, hence male students of science had positive attitude compared to the female students (49.96) of science.

FINDINGS OF THE STUDY

After data analysis, the findings of the study revealed the following aspects: -

1. There was significant difference between arts and science at Under-graduate students in respect of their attitude towards blended learning.
2. There was significant difference between male students of arts and science at Under-graduate student in respect of their attitude towards Blended Learning.
3. There was significant difference between female students of arts and science at Under-graduate student in respect of their attitude towards Blended Learning.
4. There was no significant difference between male and female students of Arts at Under-graduate student in respect of their attitude towards Blended Learning
5. There was no significant difference between male and female students of science at Under-graduate student in respect of their attitude towards Blended Learning.

EDUCATIONAL IMPLICATIONS

Educational Implications of the present study are discussed below: -

1. The present study helps to examine the overall attitude of the students towards Blended Learning at the Undergraduate level.
2. The present study aims to explicit the perception of educational stakeholders to introduce Blended Learning for effective education.
3. The present study aims to facilitate the educational stakeholders to adopt strategies to bring better learning outcomes through Blended Learning.
4. Finally, the present study may be used to assess the awareness of the both teachers and students about the

optimum use of Blended Learning in education at the Undergraduate level.

LIMITATIONS OF THE STUDY

Some limitations are mentioned below: -

The sample size is small to provide a general estimate of one area. For the present study, Sample was restricted to only one college of that Jangannath Kishore College of Sidho-Kanho-Birsha University in purulia district. Only three department arts and three departments of science were considered for study.

Time is another major constraint. Due to limited time and resources, the researcher did not fully address the research question properly.

Due to limited fund, the scope of the research has been compromised to some extent.

Non responding attitude by the respondent is another constraint of this study. Research did not get proper response from some respondent.

Non availability of previous studies on the selected topic also limited the scope of discussion for the present study.

SUGGESTIONS FOR FURTHER STUDIES

Some of the suggestion of the further studies could be as follow-

1. The similar study may be conducted for different level of students like PG students, Higher secondary education students, Engineering students etc.
2. Studies of attitude towards blended learning may be conducted for different district and states across the country.
3. A study may be done on the attitude of students towards blended learning on environmental education course and other contemporary courses of national importances.

CONCLUSION

Attitude helps us to motivate in various activities. Individual would not be able to pursue any activity for career development without having desirable attitude. From the result of the study, it has been observed that the in general, the attitude of the Arts students is more positive attitude than the attitude of science student towards blended learning and in general, the attitude of the male student is higher attitude than the female student towards blended learning. Hence, it may be concluded that this study has provided the present status of the attitude of Undergraduate student attitude towards blended learning. From the present study it is inferred that students are becoming more prone to accept blended learning in their course curriculum.

REFERENCES

1. AlAbdulkarim, M. L, & Albarrak, I.A. (2015). *Students' attitude and satisfaction towards blended learning in the health science. Proceedings of ADVED15 International Conference on Advances in Education and Social Sciences*, 423-434.
2. Aladwan, F., Fakhouri, H., Alawamrah, A., and Rababah, O. (2018). *Students' attitudes towards blended learning among students of the university of Jordan. Canadian Center of Science and Education*, 12(12), 217-227.



3. Ali, M. (2021). Students attitude towards blended teaching among students of the university of Calcutta. *International Journal of Advanced Research*, 9(07),267-274.
4. Baidya, M., & Baidya, A. (2023). Prospects of blended learning approach in teacher education. *International Journal for Multidisciplinary Research*, 5(4), 1-7.
5. Baidya, M., & Baidya, A. (2025). Integration of digital technologies and preparedness of higher education institutions (HEIs). *EPRA International Journal of Multidisciplinary Research*, 11(2), 163-169.
6. Baidya, M., & Das, P. (2024). Technological evolution in higher education. *International Research Journal of Education and Technology*, 6(10), 277-282.
7. Baidya, M., & Gope, D. (2025). Shaping the digital campus: The transformative aspects of artificial intelligence, augmented reality and virtual reality on higher education in India. *International Journal of Creative Research Thoughts*, 13(4), n667-n677.
8. Baker, M. A. (2018). Students' attitudes on implementing blended learning in teaching english in higher education institution: A case of AI-Quds open university. *International Journal of Humanities and Social Science*, 8(6),131-139.
9. Bala, E. (2016). A study of attitudes of students towards blended learning, Iraqi Case. *International Journal of Social Sciences & Educational Studies*, 2(4),54-58.
10. Birbal, R., Ramdass, M., & Harripaul, C. (2018). Student teachers' attitudes towards blended learning. *Journal of Education and Human Development*,7(2),9-26.
11. Das, R. (2021). The attitudes of students and teachers towards blended learning at the elementary level. *Elementary Education Online*,12(5),245-257.
12. Falah, F. I., & Chairudin (2022). Students' attitudes toward blended learning through google classroom in general english course. *Journal of Education, Linguistics, Literature and Language Teaching*, 5, 1-9.
13. Fenech, R., Baguant, P., & Abdelwahed, I. (2021). Blended learning: An experiment on student attitudes. *International Journal of Web-Based Learning and Teaching Technologies*, 16(6),1-12.
14. Ja'ashan, M. N. H. (2015). Perception and attitude towards blended learning for english course: A case study of students at university of Bisha. *Published by Canadian of science and Education*, 8(9),40-50.
15. Johnson, R. F. (2013). Student attitudes towards blended and online course: A comparison of students in traditional classroom writing environment and students in Blended writing environment. *Masters Thesis and Doctoral Dissertations*.
16. Korkmaz, O., & Karakuş, U. (2009). The impact of blended learning model on student attitudes towards geography course and their critical thinking dispositions and levels. *The Turkish Online Journal of Educational Technology*, 8(4),51-63.
17. Mahato, P., Behera, S. K., & Ansary, M. S. (2021). Attitude of post graduate students towards blended learning. *The online journal of Distance Education and e-Learning*, 9(2), 221-227.
18. Munir, Muhayyang, M., Limbong, S., & Ariyani, A. (2021). Students' attitudes on blended learning - based instruction in Indonesian EFL classroom. *An Interdisciplinary Journal of Human Theory and Praxis*,4(2),146-162.
19. Nyaaba, M., & Sandawey, Z. S. (2022). The challenges and attitude towards blended learning among college of education students in blended learning. *Journal of Education and Practices*, 3(2), 41-47.
20. Suprabha, K. & Subramonian, G. (2020). Higher secondary school students' attitude towards blended learning instructional strategy. *The International Journal of Indian Psychology*,1587-1593.
21. ZHU, Y., AU, W., & YATES, G. C. R. (2013). University students' attitudes towards online learning in a blended course. Paper presented at Australian Association for Research in Education, Annual Conference, Adelaide.