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Implementation of Blended Learning to Teach Writing Skills in Engineering Colleges: A study on Teachers' Perceptions and Observations

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Abstract:- This study assesses how English teachers in Engineering colleges are implementing Blended Learning mode of instruction. Nowadays as writing skills play a vital role in job seeking by engineering students, institutions are giving utmost priority by establishing communication labs. For this study thirty English teachers from different engineering colleges were selected to determine how blended learning can successfully be implemented in teaching writing skills especially in the areas of grammar, composition, coherence, sentence construction and critical thinking and their valuable opinions were collected. For this purpose, quantitative data was used. A questionnaire on different aspects was given to them. Their responses were carefully analyzed. The findings clearly show that blended learning's effective implementation, integration and transformation in educational institutions help students and teachers achieve their goals successfully. This blended learning mode of instruction can be a potent pedagogical tool to improve writing skills of engineering students.

Keywords*: Engineering education, Blended learning, Writing skills, Teachers role, Advantages.*

1. Introduction

Blended learning has become a game-changer in the quickly changing educational scene, especially for engineering students looking to improve their writing abilities. However, for the effective implementation of this new mode, instructors should play a vital role. They should be acquainted with modern digital tools. Hitherto, instruction, in almost all educational institutions at all levels, has been given through the traditional face-to- face mode. But the revolution in technology has forced education sector also to make radical changes in its attitude. It is true that digital instruction cannot be a substitute to the classroom face-to face teaching. But when both modes are combined the outcomes would be remarkable. For the implementation of this blended learning, teachers, especially working in technical institutions must tune themselves to effective utilization of digital devices. They can attend seminars, conferences and workshops where technical experts may explain how the devices work and how to utilize their services. This study examines how well English teachers from different colleges in Hyderabad, India can improve their teaching of writing skills using blended learning. The conventional focus of engineering education is on technical knowledge and abilities, frequently pushing writing proficiency development to a secondary position. Nonetheless, graduates of engineering programs must possess the capacity to express themselves clearly and professionally in a time when good communication is essential.

Blended learning offers a flexible and inclusive approach to education by fusing traditional in-person instruction with online learning. This pedagogical approach provides students with a diverse array of resources and

personalized learning opportunities by integrating the most advantageous aspects of both modalities. The aim of this study is to identify the exact challenges that engineering educators and students encounter when engaging a blended language learning approach to cultivate their writing abilities. The study analyses the potential advantages and disadvantages of this hybrid model on student engagement, motivation, and writing ability by incorporating digital tools and platforms with traditional teaching methods. The research's findings will provide to the growing body of information on instructional strategies by elucidating how blended learning can bridge the gap between technical proficiency and effective communication in engineering education.

2. Literature Review

Blended learning is becoming more popular in educational settings owing to its multiple benefits. Bowyer and Chambers (2017) emphasize that blended learning allows students to build learning abilities autonomously. According to Lloyd-Smith (2010), this strategy maximizes classroom space and school resources by allowing students to handle various obligations outside of the usual school setting. Furthermore, studies show that blended learning improves students' communication abilities, lowers communication anxiety, and promotes self-directed, motivated learning (Liu, 2013; Abdul Rahman et al., 2020). It also offers a teaching experience that is suited to students' personal and academic interests (Krasnova & Ananjev, 2015).

Recent research is increasingly focusing on the impact of blended learning on academic attainment, with some studies emphasizing its advantages. Boyle (2003) discovered that the development and delivery of blended courses greatly improves student performance. In a similar way Dowling (2003) highlighted that this teaching method promotes good impressions among students, supporting a positive perspective of the educational style. Dziuban (2004) expanded on these findings, confirming that blended learning not only improves academic performance but also favorably changes students' attitudes about learning. Despite these findings, few researches have investigated its precise influence on students' writing ability.

O'Toole and Absalom (2003) contended that sharing course materials online considerably improves student performance levels. They discovered that students who used both online resources and in-class lectures did better on assessments than those who just received traditional in-class education. Similarly, Singh (2003) observed that students taking a hybrid course performed 10% better than their classmates enrolled in a traditional setting.

Blended E-learning has been extensively implemented in universities throughout the world because it combines online Web-Based Learning with in-person education and complementing learning settings (Yilmaz & Orhan, 2010, p. 157). Blended learning is more than simply putting educational resources online; it must be tailored to the characteristics of the students and the academic subjects being taught (Reay, 2006, p. 6). Understanding instructional multimedia as well as students' learning styles is critical for blended learning success. Furthermore, educators must understand how to successfully use this information and how students will engage with face-to-face teaching methods in an online setting (Mortera-Gutierrez, 2006, pp. 313-337).

Zaytoon (2005) defines the blended learning model as a style of learning in which E-learning supplemented conventional training. It uses a variety of E-learning methods, including computers, online classes, lectures, and training sessions held in physical classrooms such as computer laboratories and smart classrooms. In these settings, professors and students meet in person at predetermined intervals. In this paradigm, the instructor directs the teaching and learning process, rather than being completely accountable for students' learning, but by directing their learning journey as they participate with their peers.

2.1 Bridging the Gap

Even though there is more and more study on how well blended learning (BL) works in different types of schools and colleges, we still don't fully understand how well teachers, especially those who teach engineering, are prepared to use BL to teach writing skills. There has been a lot of research on the possible benefits of BL, like getting students more involved and giving them more specific feedback. However, not as much research has been done on the problems teachers face when they try to use these methods. Some of these problems are technological ones, like teachers not knowing how to use technology well or needing more training on how to use digital tools correctly. Also, recent events around the world have sped up the move to online and hybrid learning environments.

This makes it even more important to find out if teachers can safely and successfully use BL techniques in their classrooms. The study's goal is to fill in this gap by checking how ready teachers are to use BL to teach writing skills, listing the problems they face, and suggesting ways to get around these problems so that students do better in the digital age.

3. Objectives of the Study

This article, titled "Implementation of Blended Learning to Teach Writing Skills in Engineering Colleges: A study on Teachers' Perceptions and Observations" seeks

To determine the English teachers' level of comfort in using blended learning.

- To ascertain the extent to which English teachers view blended learning favorably
- To determine whether blended learning is effective in enhancing students' English writing abilities.
- To understand more about the obstacles preventing English instructors from implementing BL in the classroom.

4. Methodology

Thirty English teachers from different engineering colleges in Hyderabad, India were stratified and randomly selected for this study. Teachers were supplied with questionaries' which consist of questions and their opinions on Blended Learning mode of instruction in developing writing skills among students. As teachers are familiar with the hybrid mode, their answers and suggestions were given due credit. The responses were collected and analyzed. This data is shown in tables.

5. Results

The following tables indicate the responses of teachers on different aspects of blended learning

Assessing the perceptions and the use of Blended Learning by English Teachers

Table I: Teachers' Acquaintance with Blended Learning

S.No.	Question	Variable	Frequency	%
1.	How frequently do you use BL in your class?	Never Rarely Occasionally Regularly	5 7 8 10	16.67 23.33 26.67 33.33
2.	How do you rate yourself in using BL in your class?	Not Proficient Beginner Competent Highly Proficient	5 9 12 4	16.67 30 40 13.33
3.	What is your opinion on the impact of Blended Learning on students	Not Effective Somewhat Effective Effective Highly Effective	4 9 10 7	13.33 30 33.33 23.33

The above graph provides a comprehensive overview of English instructors' expertise and attitudes on Blended Learning in their classes. The table is divided into three sections: frequency of BL use, self-assessment of BL proficiency, and remarks on its impact on students.

Frequency of Blended Learning Use

The first question explores how often teachers utilize BL in their classrooms. According to the study, 33.33% of teachers use BL daily, representing extensive acceptance of this strategy. However, a lower minority (16.67%) never employ BL, inferring that some teachers are either unaware with or unwilling to use this strategy. The remaining teachers fall somewhere in the middle, with 23.33% seldom utilizing BL and 26.67% using it rarely. These results specify that, while BL is becoming more widely used, instructors still have changing levels of familiarity and comfort.

Proficiency with Blended Learning and Its Impact on Students

Teachers are asked to evaluate their own proficiency in implementing BL in the second question. Forty percent of teachers think they are "competent," with thirteen percent calling themselves "highly proficient." In contrast, 30% declare themselves a "Beginner," and 16.67% as "Not Proficient," indicating a spectrum of confidence levels when it comes to BL. The last inquiry seeks teachers' thoughts on how BL has affected their pupils. Here, 33.33 percent of people consider BL to be "Effective," while 23.33 percent think it is "Highly Effective," suggesting that people are hopeful about the results. But although 30% of teachers think BL is "somewhat effective," 13.33% think it is "not effective." This shows that opinions on its impact range, which is probably due to differences in how it is used and the results it produces in various classrooms.

Table II: Teachers' Opinion on Using BL mode in Teaching Writing Mechanics

S.No	Questions	Grammar		Coherence		Structure		Critical Thinking	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
1	In which area do you feel comfortable to teach using BL	10	33.33	5	16.67	8	26.67	7	23.33
2	In which category all your students are completely satisfied with Blended Learning instruction	15	50.0	3	10	6	20	6	20
3	For which area BL can be implemented effectively	12	40	6	20	7	23.33	5	16.67
4	For the effective use of Blended learning, which component do you think that digital devices are not enough	5	16.67	7	23.33	6	20	12	40

This table summarizes instructors' thoughts on utilizing Blended Learning to teach key components of writing mechanics such as grammar, coherence, structure, and critical thinking. The first question reveals that most instructors are comfortable in teaching grammar using BL (33.33%), whereas coherence is the least comfortable (16.67%). This implies that instructors may find it simpler to use BL approaches to more tangible components of writing, such as syntax, rather than more abstract ones like coherence.

The satisfaction of students and the effectiveness of BL are examined in the second part of the graph. Among the areas of BL education, teachers report that students are most satisfied with grammar instruction (50%), while students are least satisfied with coherence (10%). In addition, 40% of teachers think BL works best when teaching grammar, while 40% think digital tools might not be enough to teach critical thinking. This indicates that although

BL is an effective strategy for some parts of writing, applying it to more complex or abstract skills like coherence and critical thinking may be challenging.

Table III: Teachers' Opinion on Using BL for developing writing skills

S.No	Topic	Strongly Agree		Agree		Disagree		Strongly Disagree	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
1	Helps students in developing writing mechanics	15	50	10	33.33	3	10	2	6.67
2	Increases knowledge through digital devices	20	66.67	5	16.67	2	6.66	3	10
3	Personal contact between students and teachers intact	18	60	6	20	3	10	3	10
4	Learns new things quickly	17	56.67	6	20	3	10	4	13.33
5	Lessens some burden in teaching	20	66.67	4	13.33	4	13.33	2	6.67
6	Time saving	18	60	6	20	2	6.67	4	13.33
7	Helps students in completing assignments on their own	12	40	7	23.33	6	20	5	16.67
8	Should be implemented in all higher education institutions for developing writing skills	22	73.33	5	16.67	2	6.67	1	3.33

This table summarizes instructors' perspectives on major components of Blended Learning and its influence on students' writing abilities and educational experiences. The research indicates that BL is highly effective in assisting students in the acquisition of writing mechanics, as 50% of instructors "Strongly Agree" and 33.33% "Agree." Additionally, 66.67% of instructors assert that BL enhances students' comprehension by utilizing digital devices, while 60% believe that it encourages human interaction between students and teachers. The majority also believe that BL helps students learn new concepts fast (56.67%) and effectively reduces the teaching load (66.67%).

However, there are instances where perspectives differ. For example, 40% of instructors "Strongly Agree" that BL allows students to complete work independently, 20% "Disagree," and 16.67% "Strongly Disagree." Furthermore, while 60% of instructors say that BL saves time, 13.33% "strongly disagree." Despite these differing perspectives on some issues, there is enormous support (73.33% "Strongly Agree") for using BL at all higher education institutions to improve writing abilities, suggesting widespread acknowledgment of its potential benefits.

Barriers Preventing Teachers from using BL

However, some negative aspects of Blended Learning instruction for developing writing skills are also found in this study. Teachers' opinions and their experiences with students are collected and shown in this table.

Table IV: Observations of Teachers regarding the Attitude of Students towards BL

S.No	Questions	Strongly Agree		Agree		Disagree		Strongly Disagree	
1	Hindrance to Critical and independent learning	**22**	**73.33**	**4**	**13.33**	**2**	**66.7**	**2**	**6.67**
2	Negligence in attending classes	18	60	5	16.67	4	13.33	3	10
3	Frequent glitches in access of internet	20	66.67	6	20	3	10	1	3.33
4	Health problems due to prolonged unnecessary use of digital devices	15	50	7	23.33	5	16.67	3	10
5	Financial constraints to buy personal devices	16	53.33	6	20	3	10	5	16.67

Table IV shows a study of the problems that teachers face when they try to use Blended Learning in language classes. The biggest problem that was identified is "Hindrance to Critical and Independent Learning," which was reported by 73.33% of the respondents. This was followed by "Negligence in Attending Classes," which was mentioned by 60% of those who responded. This shows how hard it is for teachers to keep students interested and involved in a mixed learning setting. Another big problem expressed by 66.67% is failure of internet access. This shows how important stable internet service is for the success of mixed learning projects.

Another problem is that 50% of respondents said they had health problems because of unnecessary use of digital devices for hours together, and 53.33% were unable to buy digital devices. These problems should be addressed favorably for successful implementation of Bl. The table clearly shows the problems teachers observe, such as technology and financial issues, as well as health and learning-related problems. These obstacles need to be fixed for BL to be used effectively in language education.

6. Discussion on Findings

The study's findings showed that, for the most part, educators have accepted the use of BL in the instruction of English writing skills. Everyone was in agreement that employing BL was relevant, significant, and would enhance teaching and learning. All of their comments indicated a favourable opinion on the use of BL in teaching and learning activities, as shown in Tables 1, 2, and 3, respectively. They thought it was a good idea. It was also discovered that the respondents had positive opinions about the usage of the internet and computers in the classroom. The results show that many teachers are interested in blended learning mode of instruction that has enriched their teaching capabilities in developing writing skills of students.

According to the studies, there is a greater likelihood that BL will be utilized successfully to improve English writing abilities if all the prerequisites are met. Additionally, it is discovered that for teachers to use BL effectively, they need to be given the necessary technological tools, internet resources, proper teacher preparation, adequate time, and technical support. The five factors—adequate and sufficient BL resources, efficient BL management, qualified BL instructors, successful BL integration with general instruction, and supportive institute management—all play crucial roles in achieving the desired outcomes through BL in academia.

7. Recommendations

Instructors must overcome their fear of technology and take a more pro-BL stance. Teachers must receive BL training before using it in the classroom. They need to be up to date on the latest advancements in digital teaching.

Since students will have more control over their education and be able to learn whenever and wherever they wish, teachers allow their students to use BL for learning. The administration of the college should provide BL resources and the required facilities.

8. Conclusion

The study concludes that blended learning has a high potential for effective adoption, integration, and transformation in educational institutions, owing to the excitement of both instructors and students to use it to improve English writing abilities.This upbeat outlook emphasizes how blended learning has the ability to improve instruction and student experiences in universities and schools. In order to fully reap the rewards of information and communication technology and attain significant success, the study recommends raising awareness on the significance of blended learning applications. This is especially important when teaching English writing skills, as blended learning can offer a variety of interesting, adaptable, and engaging learning options. Blended learning can work better if both teachers and students understand it better. This can help students learn more and improve their English writing skills.

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