The Impact of Blended Learning on Undergraduate English Students' Achievement

Erizar
STAIN Teungku Dirundeng Meulaboh
erizar@staindirundeng.ac.id
Abdul Gafur Marzuki
State Islamic University of Datokarama Palu
gafurmarzuki@uindatokarama.ac.id
Tuti Hidayati
STAIN Teungku Dirundeng Meulaboh
tutihidayati@staindirundeng.ac.id
Rena Juliana
STAIN Teungku Dirundeng Meulaboh
renajuliana@staindirundeng.ac.id
Astri Yulia
Selangor University, Malaysia
dr.astri@unisel.edu.my
Corresponding email: gafurmarzuki@uindatokarama.ac.id

Abstract

Blended learning, integrating traditional face-to-face instruction with online components, has gained momentum in higher education. This study aimed to explore the effect of blended learning on the academic performance of students enrolled in the English Department across multiple universities in Aceh, Indonesia. The research specifically aims to compare the effectiveness of blended and offline learning models in facilitating students' learning achievements. The study population encompasses undergraduate students from seven distinguished universities within the Aceh Province, making the research findings relevant and applicable to a diverse range of educational institutions. Quantitative data, gathered through a survey method, formed the basis of this research, enabling a thorough analysis of students' learning outcomes in both blended and offline learning environments. The results of the study reveal a compelling insight: there is no statistically significant difference in students' learning achievements between blended and offline learning models ($P = 0.062 > 0.05$). This intriguing finding challenges traditional perceptions and underscores the potential of blended education as a viable and effective alternative to conventional classroom learning within the English Department curriculum. The implications of these results are far-reaching, suggesting that universities and lecturers can leverage blended learning platforms without compromising the quality of education provided to English Department students. This research contributes valuable insights to the ongoing discourse on the evolution of educational methodologies, emphasizing the importance of embracing technology-enhanced learning approaches. As the world continues to advance digitally, this study provides a foundation for future exploration and implementation of blended learning strategies, fostering an inclusive and innovative educational landscape for students in Aceh, Indonesia.

Keywords: *Academic performance; blended learning; English department students; offline learning*

Introduction

Education is one of the essential factors in improving human resources in Indonesia to compete in the global world. The Indonesian government has a 12-year compulsory education plan (Law No. 20 of the National Education System in 2003) next-generation. Even now, the government continues to provide better education facilities for free at every level of education so that all Indonesian people get an education. The human resources of a country can be built with education. Through education, students can overcome life problems and problems rooted in society by participating in the community and participating in the era of globalization. In education, learning is a long process that will lead to achievement. To excel and get the best result, an appropriate learning strategy is needed.

The world has been shocked by the coronavirus (Covid-19) that was first hit in 2019 which affects every human life, including education. The Ministry of Education and Culture, Indonesia, one of the stakeholders in the education, has carried out various adaptation activities of the teaching and learning process in stopping the transmission of COVID-19. This adjustment would not make it difficult for both lecturers and students since it is full of character strengthening points (Dewi, 2020). The emergence of the corona has fostered the thoughts of some experts in the field of education to come up with innovative ideas in the learning process, for example, mastery of technology in learning media through online (e-learning) and blended models of teaching and learning facilities, including WhatsApp, Google Classroom and the use of Zoom combined with face-to-face meeting (Allen, I. E., & Seaman, 2017; Ayuni et al., 2020; Darmalaksana, 2020; Nugraha, 2021).

The transition to the online/blended learning method is a challenge in education because students lack knowledge and skills on using the applications for online/blended learning before the pandemic occurs (Hakim, 2020; Junaidi et al., 2021; Smith et al., 2022). Changes in the learning system from the conventional learning (face-to-face) to online/blended learning resulted in many frameworks of thinking or views in various parties. Some consider this a positive change, with the assumption that lecturers are increasingly technologically literate, which can be in line with the development of the times. Some see this as a negative change

because lecturers cannot know directly about their students' character, personality, attitude, or nature (Sobron et al., 2019; Sobron, 2019; Thongmak & Ruangwanit, 2021).

The transition from traditional face-to-face learning to online and blended education, accelerated by the emergence of the COVID-19 pandemic, has indeed sparked various discussions and debates within the education community. One significant aspect of this shift is the need for both lecturers and students to adapt to new digital tools and platforms. While online and blended learning offers the convenience of accessing education from anywhere, it also demands a certain level of digital literacy and self-discipline from students, which can be a challenge, especially for those who are not familiar with technology (Bao, 2020; Vhalery et al., 2021; Wang & Lee, 2022).

In response to these challenges, educational institutions and teachers have been exploring innovative ways to enhance the blended learning experience. One approach is the integration of interactive multimedia content and gamified learning activities, aiming to engage students and facilitate a more dynamic learning environment (Hodges et al., 2020). Additionally, collaborative blended platforms like Google Classroom and Zoom have become essential tools for virtual classrooms, allowing real-time interactions between teachers and students, as well as peer-to-peer collaboration (Means et al., 2020; Ara et al., 2022).

Furthermore, lecturers have been experimenting with flipped classroom models, where students engage with instructional materials online at their own pace before attending virtual class sessions for discussions, problem-solving, and collaborative activities (Singh et al., 2021). This approach not only promotes active learning but also allows teachers to provide targeted support to individual students, addressing their specific learning needs (Bishop & Verleger, 2013).

However, it is crucial to acknowledge the digital divide that exists among students, with disparities in access to technology and the internet. Addressing these inequalities is essential to ensure that all students have equal opportunities to participate in online learning (Van Dijk, 2020). Efforts have been made by governments and organizations to provide devices and internet connectivity to underserved communities, but more comprehensive strategies and policies are needed to bridge this gap effectively.

In reality, most students complained about the blended learning system. In blended learning, most students reported that they were mostly assigned tasks to complete and that there is a lack of explanations given by the lecturers about the materials or topics of the course. In implementing blended learning, both lecturers and students have their roles. Lecturers act as facilitators, while students play their role as knowledge constructors, independent learners, and problem solvers (Maudiarti, 2018). The challenges faced by both students and lecturers in blended learning environments have been widely discussed in academic literature. One significant issue is the digital divide, which refers to the gap between individuals who have access to digital technologies and those who do not. Students from lower socioeconomic backgrounds may lack access to reliable internet connections and suitable devices, hindering their ability to fully engage in online learning (Chen et al., 2020).

Blended learning has become a prevalent mode of education, especially in recent times when the world faced the challenges in the post COVID-19 pandemic. While blended learning offers flexibility and convenience, it also comes with its share of challenges. One major issue faced by students in blended learning environments is the lack of direct interaction with lecturers. Traditional classroom settings allow for immediate clarification of doubts and real-time discussions, which are often missing in blended courses. This absence of real-time communication can lead to feelings of isolation among students, hindering their learning experience (Means, et al, 2010). Moreover, the asynchronous nature of blended learning can create a sense of detachment from the course material. Students might find it difficult to stay engaged and motivated when they are not physically present in a classroom environment. Additionally, technical issues such as poor internet connectivity or problems with blended can further exacerbate the challenges faced by students, causing frustration and hindering their learning progress (Hodges et al., 2020).

Lecturers, too, face their own set of challenges in the blended teaching environment. They must adapt their teaching methods to ensure that course materials are effectively delivered in a digital format. This adaptation requires additional effort and training to create engaging online content and interactive learning experiences. Lecturers must also find innovative ways to assess students'

understanding and provide timely feedback, which can be more challenging in online settings (Bozkurt, et. al, 2017).

Despite the challenges, blended learning offers several advantages that can positively influence student learning achievements. One of the key benefits is flexibility. blended platforms empower students to learn at their own pace, accommodating diverse learning styles and preferences (Means et al., 2013). This flexibility fosters a personalized learning experience, allowing students to delve deeper into topics of interest, spend more time on challenging concepts, and revisit materials as needed. As a result, students can enhance their overall understanding and mastery of the subject matter, leading to improved learning outcomes.

Moreover, blended learning promotes self-directed learning and critical thinking skills. Students are encouraged to take ownership of their learning journey, seeking out resources, engaging in independent research, and actively participating in the learning process. This self-directed approach nurtures curiosity and a proactive attitude toward learning, essential skills in navigating the rapidly changing global landscape (Dabbagh & Kitsantas, 2012). By encouraging students to think critically and independently, online learning equips them with the skills necessary for lifelong learning and continuous adaptation to new challenges.

Active participation and collaboration are also encouraged in the blended learning environment. Virtual classrooms often incorporate discussion forums, group projects, and collaborative assignments, fostering interaction among students. Engaging in discussions and collaborative activities not only deepens students' understanding of the subject matter but also hones their communication and teamwork skills. These interpersonal skills are invaluable in the professional world, enhancing students' readiness for future employment opportunities (Gokhale, 1995).

Additionally, blended learning provides access to a wealth of digital resources and multimedia materials combined with face-to-face meeting. These resources, including videos, simulations, and interactive modules, cater to diverse learning styles and preferences, enhancing the overall learning experience (Spires et al., 2012). The multimedia approach reinforces concepts, making it easier for students to grasp complex ideas and improve their learning outcomes. Additionally, innovative assessment methods, such as online quizzes, peer assessments, and multimedia projects, can further enhance learning achievements (Anderson & Dron, 2011).

These assessments not only measure students' knowledge and skills but also stimulate creativity and critical thinking. Immediate feedback provided in online assessments enables students to identify their strengths and areas for improvement, facilitating targeted self-study and continuous enhancement of their skills over time (Narciss, 2008).

Furthermore, learning achievement results from measuring changes in student behavior after experiencing the learning process that reflects the level of mastery of learning materials (Herdiyanto, 2019). It is the level of success of students in achieving the goals that have been set in a program. In addition, learning achievement is a term used to indicate the achievement obtained from a person's learning outcomes within a certain period through understanding, application, logical strength, and assessment. These are communicated as specific numbers or images through evaluations made directly by the teacher using normalized tests. Through measuring learning achievement results, lecturers can understand students' performance (Falah, 2014). Considering the importance of measuring student learning achievement during blended learning, researchers are interested in studying the phenomenon by carrying out their research entitled revolutionizing education: the Impact of blended learning on undergraduate English students' achievements.

Based on the problems discussed above, this study inquires two essential questions to be addressed, as stated below.

1. What are the effects of blended learning on the learning achievement among undergraduate students of English as a foreign language?
2. To what extent does blended learning affect the learning achievement among undergraduate students of English as a foreign language?

Research Method

This study utilizes the quantitative method to collect the data. The quantitative data was gathered through a survey method from undergraduate students. To enhance the reliability and validity of the data collected, rigorous sampling techniques were employed to ensure a representative sample of the undergraduate student population. Statistical analysis tools and software were utilized to analyze the quantitative data, enabling the researchers to identify patterns, trends, and

correlations among variables (Henson et al., 2020; Coe et al., 2021; Kara et al., 2021; Purnasari, 2021).

Furthermore, the researchers implemented measures to maintain the confidentiality and anonymity of the participants, encouraging honest and unbiased responses. The quantitative data collected through the survey method served as a valuable foundation for the analysis, interpretation, and discussion of the study's findings. The utilization of the quantitative method in this research provides a robust and systematic approach to understanding the specific variables under investigation among the undergraduate student demographic. By employing rigorous data collection and analysis techniques, the study aims to contribute significantly to the existing body of knowledge in the relevant field.

The research was conducted in Aceh, Indonesia, and specifically targets seven prominent universities housing English Departments. These universities serve as the primary source of data collection for this comprehensive study. The primary objective is to delve into the English language proficiency levels of undergraduate students majoring in Teaching English as a Foreign Language (TEFL) within these universities. By focusing on this specific academic discipline, the research aims to provide valuable insights into the challenges faced by aspiring English language lecturers and identify effective strategies for enhancing their language proficiency.

Findings

After the completion of the quantitative data collection phase, data screening and cleaning were performed. The data was interpreted and tabulated through descriptive statistical procedures to see the profile of the data and describe the nature of each variable. To examine the effect of blended learning on students' learning achievement, CGPA during and post the pandemic were compared through the computation of t-test. SPSS data analysis software was utilized as the main tool for this study.

To answer the research questions proposed, this study utilized questionnaire as the main instrument for data collection. The questionnaire was divided into three sections with different focus area. Section 1 was used to gather information about students' background and grade obtained during their study period. Section 2 was directed to collect information about students' perception toward blended learning.

Meanwhile, section 3 was intended to get information about students' approach and learning management. Since section 2 and section 3 consist of several items requiring response in 5 Likert scale, the items were tested for reliability and validity before delivered to the students. The reliability test for all questionnaire items came out with Cronbach's alpha value 0.745. Therefore, it can be concluded that all items in the questionnaire have strong consistency rate.

In term of validity test, the result yielded p-value at sig (2tailed) $0.00 < 0.05$ for 18 items, indicating that the items were valid. Yet, items number 4 and number 6 came with p-value at sig (2 tailed) $0.885>0.005$ dan $0.013>0.05$ respectively, hence the two items were not valid and must be taken out from the questionnaire designed.

1. What are the effects of blended learning on the learning achievement among undergraduate students of English as a foreign language?

Data from the questionnaire exploring students' perspective toward blended learning indicated that students have positive perception about blended learning. Their responses in general shows that they enjoy learning without close supervision from lecturer. Additionally, they also feel comfortable learning English in blended environment providing the wide access of learning resources and materials. In this case, blended learning appears to have no significant effect on students' achievement.

As it appears in the table 1, questionnaire items measuring students view about blended learning came with average point of 3 and above. This means that in general students tend to show agreement toward the statements presented. Item number 20 about access of learning material and item no 8 about convenience in using and practicing English in online learning mode counted with the highest average score at 3,79 and 3,53 respectively indicating that students were in agreement of enjoying the particular features of blended learning.

Table 1. Students' perception about online learning

No	Questionnaire item	Mean	SD
20	Given 24 hours access on the material, I can get more time to practice my English	3,79	0,799
8	I feel comfortable using English and practicing English in blended learning.	3,53	0,833

No	Questionnaire item	Mean	SD
12	Through blended learning I can learn more freely.	3,53	0,917
17	I felt active and confidence with blended learning	3,46	0,832
1	I'm comfortable learning while being remotely from my lecturer and classmates	3,43	0,862
7	Although the learning was performed blended, I can understand the subject content well.	3,41	0,716

The results from the discussion of the table above are also supported by Handarini and Wulandari (2020). According to them, blended learning makes students more independent and creative in learning. The same thing was also stated by Sobron, et all (2019) who argued that online/blended learning made students more enthusiastic and independent in learning so that it had a positive influence on their learning achievement. Furthermore, Muthuprasad et al. (2020) conducted research on Students' Perception and Preference for online/blended Education in India during the Covid-19 Pandemic. The results of their study showed that the majority of students showed positive attitudes towards online/blended classes during and post the pandemic. Blended learning turns out to be profitable because it provides flexibility and convenience for students (Hashemi, A., & Si Na, 2020; Finlay et al., 2022).

In addition, students respond indicate that they have the ability to manage their learning. Their responses show that regardless of the learning instruction modes, they are considerably competent in managing their own learning process. The calculation for response to questionnaire item assessing how the students' approach and take part in the learning process shows that almost all items (except no 14) came with average score about 3,5. This result shows that student acquire good management and were responsible learning. Accordingly, it is justified to find out that blended learning did not significantly affect students' performance and achievement.

Table 2. Students' control and learning management

No	Questionnaire item	Mean	SD
15	In my studies, I set goals and have a high degree of initiative.	4,01	0,766
18	I get A or B for my final score with blended learning	3,86	0,705

16	Blended learning gives me more sense of control and responsibility toward my learning.	3,76	0,766
13	In my studies, I am self-disciplined and find it easy to take control of my learning.	3,7	0,766
14	I am able to manage my study time effectively and easily complete assignments on time.	3,39	0,748

2. To what extent does blended learning affect the learning achievement among undergraduate students of English as a foreign language?

Students' achievement in this study was seen through their average GPA obtained during the blended and offline period of their study. Just as the findings obtained from questionnaire data, analysis on students' grade point average also yielded similar result. Students' Grade Point Average (GPA) from the two classification groups of blended and offline did not differ largely. Average GPA for online group was 3.58 while the offline group was 3.53. The two groups differ only slightly at 0.56 points.

Table 3. Group Statistics

CLASS	N	Mean	Std. Deviation	Std. Error Mean
OFFLINE	104	3.5278	.24433	.02396
BLENDED	127	3.5843	.21358	.01895

Table 4. Independent Samples Test

		Levene's Test for Equality Varince				Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
GPA	Equal variances	.761	.384	-1.876	229	.062	-.05654	.03014	-.11593	.00285

assumed	-1.851	206.227	.066	-.05654	.03055	-.11677	.00368
Equal varian							

Discussion

To assure that the absence of difference was not due to coincidental factors, further statistical analysis of comparing students' grade was performed using t-test. The result yielded p- value with sig (2-tailed) 0.062 > 0.05. Since p-value is higher than the alpha value, in the null hypothesis, it fails to reject Ho. In other word, this means that there is no significant different between students GPA in offline and blended period of learning. The different mode of learning instruction received by the students had not significantly influence their performance, therefore, no difference was indicated. This finding is supported by several researchers who conducted the research on the effectiveness of blended learning: Beyond no significant difference and future horizons. The research indicated that blended learning is as effective as offline learning (Cronje, 2020; Hashemi & Si Na, 2020; Singh et al., 2021; Finlay et al., 2022).

Moreover, the finding that there is no significant difference between students' GPA in offline and blended periods of learning is supported by several studies. For example, a study comparing students' performance in blended and offline platforms found that students do better on online platforms than in traditional education systems (Leidl et al., 2020; Rasheed et al., 2020; Ara et al, 2022). Similarly, a study comparing learning outcomes and technology readiness in blended versus offline learning found that both blended and offline delivery methods can improve students' cognitive processes and their topic interest significantly (Rasmitadila et al., 2020; Thongmak & Ruangwanit, 2021; Saboowala, R., & Manghirmalani, 2021).

The combined findings from the questionnaire and GPA analysis suggest that, despite positive perceptions and satisfaction with blended learning, there is no substantial difference in learning achievement between blended and offline modes. This implies that the transition to blended learning during the post pandemic did not adversely impact students' academic performance.

The results challenge concerns about the effectiveness of blended learning, as highlighted in previous literatures. The positive attitudes and competence in

managing learning observed among students may have contributed to their ability to adapt successfully to blended instruction. However, it is essential to acknowledge the limitations of this study, such as its focus on a specific group of undergraduate students in English as a foreign language.

Additionally, the study provides a nuanced understanding of the effects of blended learning on learning achievement. The positive perceptions of students and their ability to manage learning suggest that blended learning, when properly implemented, can be a viable and effective mode of instruction. These discussions of findings contribute to the ongoing discourse on the future of education, particularly in the context of increased reliance on blended platforms.

Conclusion

This study highlights the positive perception of online learning among English Department students, who appreciate the freedom it provides for self-regulated learning, creativity, and independent exploration. The majority of students with experience in blended learning expressed satisfaction with this mode of education. Moreover, the comparison between blended and offline learning models revealed no significant difference in students' learning achievements. This suggests that both blended and offline learning can be equally effective in facilitating students' academic progress within the English Department.

These results may give recommendation the importance of incorporating blended learning opportunities within the English Department curriculum, allowing students to benefit from the flexibility and autonomy that blended learning offers. Furthermore, lecturers and institutions can capitalize on these insights to design hybrid learning approaches that combine the strengths of both online and offline methods, catering to diverse learning preferences and enhancing overall educational experiences.

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