Journal of English Educational Study (JEES)
Volume 8 Issue 1 May 2025 Page 31-40
E-ISSN: 2655-0776

THE EFFECT OF LMS-SUPPORTED BLENDED LEARNING ON STUDENTS' ENGLISH PROFICENCY IN ENGLISH FOR ACADEMIC PURPOSEINSTRUCTION

Faisal Rahman, Faida Azhimia, Noor Aisyah
Universitas Sari Mulia
faisalrahman@unism.ac.id, faidaazhimia@unism.ac.id, nooraisyah@unism.ac.id

Submitted: 2024-09-13
Accepted: 2025-02-18

Abstract: This research aims to identify the effect of Learning Management System (LMS) supported blended learning on students' English proficiency in English for Academic Purpose (EAP) classroom. Previous studies have explored the broader benefits of blended learning. However, there is a lack of studies specifically investigating its impact on EAP instruction. This study aims to address this gap by providing a comprehensive analysis of LMS-supported blended learning in EAP, contributing to a deeper understanding of its potential benefits and challenges in this specialized area of language education.This research implies quasi experimental study method with one group pretest posttest experimental design. The population of this research was 138 students of pharmacy study program of Sari Mulia University academic year 2023/2024 who took EAP course divided into three classes. The sample of this research was 45 of class A students who were selected using cluster random sampling technique. The result found that LMS supported blended learning has no significant effect on students' English mastery in EAP classroom. This indicates that main hypothesis (H_1) is rejected and alternative hypothesis (H_0) is accepted. Nevertheless, LMS supported blended learning is still helpful and applicable in EAP instruction since the students' mean score indicates small improvement on their English proficiency.

Keywords**:** Learning management system, blended learning, english proficiency, english for academic purpose

INTRODUCTION

The integration of technology into educational settings has revolutionized the way students learn and interact with course materials. One of the most effective tools in this digital age is the Learning Management System (LMS), which has become a cornerstone in blended learning environments. Blended learning, which combines traditional face-to-face instruction with computer-mediated activities, has been widely adopted in various academic disciplines to enhance student engagement and academic achievement. The research objective is to explore whether or not there is significant effect of using an LMS in a blended learning setting on students' learning outcomes in English for Academic Purposes (EAP).

Blended learning is a teaching approach that combines two or more learning models, namely face-to-face learning and distance learning, into one integrated learning program (Hockly, 2018). There are several models of blended learning, including: the rotation model, where students divide their time between online learning and face-to-face learning with the teacher; the flexible model, where students learn independently online but meet with the teacher for discussion or counseling. The teacher provides additional guidance and support for students who need it; the self-blend

model, where students combine online and face-to-face learning with the teacher according to their needs. The enriched-virtual model, where students spend most of their time learning online, but also have the opportunity to learn face-to-face with the teacher according to their needs. Blended learning is not just about combining online and offline learning, but also involves an integrated and structured approach to maximize the student learning experience. The three basic concepts in blended learning are flexibility, interactivity, and adaptability (Dziuban et al., 2018). Blended Learning has several advantages, including: students can more easily access learning materials; students pay more attention to learning; and it promotes better communication between teachers and learners (Castro, 2019).

Several studies have shown the effectiveness of blended learning in English language teaching, such as research conducted in Saudi Arabia (Mohamed, 2021) which showed that the use of blended learning in English language teaching can improve English language proficiency. Other research conducted in China (Ma & Lee, 2021)showed that the use of blended learning in English language teaching in higher education can also improve students' English language proficiency and confidence. While other research (Kintu et al., 2017) shows that blended learning is also effective in increasing students' learning motivation and English language proficiency from aspects of student characteristics and learning design.

Several studies have also highlighted the critical factors influencing the success of LMS in blended learning environments. For instance, a study(Al-Busaidi, 2012) emphasized the importance of learner characteristics, instructor characteristics, LMS characteristics, classmates characteristics, course characteristics, and organization characteristics in determining the success of LMS adoption. The study found that all these factors are crucial for one or several success measures, including actual usage, perceived usefulness, perceived ease of use, and user satisfaction.Moreover, another research revealed that LMS provides EFL teachers and students with several advantages, such as efficient course management, a range of teaching approaches, adaptable learning activities, and increased student engagement and independence. However, implementing LMS in blended learning can be difficult due to technical problems like unreliable internet and insufficient devices, limited technological knowledge, and a lack of e-learning teaching strategies(Cao, 2023).

Theprevious researches have explored the benefits of blended learning in general education, there is a dearth of studies specifically examining the impact of LMS-supported blended learning on English for Academic Purposes (EAP) instruction. Many studies have focused on the effectiveness of blended learning in various subject areas, but the unique challenges and requirements of EAP have not been adequately addressed. Additionally, existing research may not have fully explored the potential of the LMS as a tool for enhancing EAP teaching and learning.

Journal of English Educational Study (JEES)
Volume 8 Issue 1 May 2025 Page 31-40
E-ISSN: 2655-0776

While the LMS can offer a range of features and functionalities, it is essential to investigate how these can be optimally utilized to support the specific needs of EAP learners and teachers.Therefore, this study aims to fill the existing gap in the literature by providing a comprehensive analysis of the effects of LMS-supported blended learning on EAP instruction. By focusing on this specialized area of language education, the research will contribute to a better understanding of the potential benefits and challenges of this pedagogical approach.

METHOD

This research is quasi-experimental study in the form of quantitative research to measure the effect of the Blended Learning model in improving the English language proficiency of Pharmacy students. This study used a One-Group Pretest-Posttest Experimental Design. This research design is an experimental design that measures the difference between two measurements in a single group of subjects. This design is often used to test the effectiveness of an intervention or program in producing changes in the observed dependent variable. The research design can be seen in the following diagram:

X = Intervention

O1 = Pre-Test

O2 = Post-Test

The population in this study is all students of the Pharmacy Program, Faculty of Health, Sari Mulia University, Class of 2023, which is divided into 3 classes: A, B, and C. Then, class B was selected as a sample using cluster random sampling.

Data from this research was collected using a pre-test and post-test to measure the English language proficiency of Pharmacy students before and after receiving the intervention or treatment of implementing Blended Learning in English for Academic Purposes learning. The researchers conduct the preliminary test to other group to measure the instrument validity. The validity test of the instrument was conducted using product moment test. The validity test result is shown on the table below:

Table 1. Validity test result

Item No	Sig. 2 Tailed	Interpretation
1	0,000	Valid
2	0,000	Valid
3	0,000	Valid
4	0,000	Valid
5	0,006	Valid
6	0,000	Valid
7	0,000	Valid
8	0,003	Valid
9	0,000	Valid

Journal of English Educational Study (JEES)
Volume 8 Issue 1 May 2025 Page 31-40
E-ISSN: 2655-0776

10	0,000	Valid
11	0,000	Valid
12	0,000	Valid
13	0,000	Valid
14	0,003	Valid
15	0,000	Valid
16	0,000	Valid
17	0,000	Valid
18	0,000	Valid
19	0,000	Valid
20	0,000	Valid
21	0,000	Valid
22	0,000	Valid
23	0,000	Valid
24	0,000	Valid
25	0,000	Valid
26	0,000	Valid
27	0,038	Valid
28	0,000	Valid
29	0,066	Invalid
30	0,000	Valid
31	0,000	Valid
32	0,000	Valid
33	0,016	Valid
34	0,000	Valid
35	0,000	Valid
36	0,000	Valid
37	0,507	Invalid
38	0,000	Valid
39	0,000	Valid
40	0,000	Valid

According to the product moment validity test, 38 items were valid, and 2 items were invalid. The invalid items were excluded to measure the result of the tests. Then, the researchers conducted Cronbach's alpha reliability test, the result is shown on the table below:

Table 2. Reliability test result

Cronbach's Alpha	N of Items
0.825	40

The reliability coefficient of the test was 0.825. The guideline of Cronbach's alpha reliability is as shown on table below (Cohen et al., 2018):

Table 3. Guideline of Cronbach's alpha reliability

Reliability Coefficient	Reliability Category
>0.90	Very highly reliable
0.80 up to 0.90	Highly reliable
0.70 up to 0.79	Reliable
0.60 up to 0.69	Marginally / minimally reliable
<0.60	Unacceptably low reliability

Journal of English Educational Study (JEES)
Volume 8 Issue 1 May 2025 Page 31-40
E-ISSN: 2655-0776

Based on the guideline above, the reliability of the instrument (0.825) was in highly reliable which is applicable to be used in collecting data.

To analyze the research data, both descriptive and inferential statistical methods were employed. Descriptive statistics were used to summarize the data's central tendency and dispersion, including mean, standard deviation, maximum score, and minimum score. In contrast, inferential statistics were applied to determine if there were significant differences in teaching outcomes when utilizing locally-based cultural materials compared to existing materials. This analysis encompassed normality tests, homogeneity tests, and hypothesis testing (Creswell, 2014). Normality test using Kolmogorov Smirnov formula, this test was conducted to make sure whether the data was distributed normally or not. Then, homogeneity test was conducted using Levene's test to measure the homogeneity of the data (Field, 2013); and hypothesis test using Wilcoxon test. The test was used to compare the mean of pre-test and post-test (Pallant, 2020).

The hypothesis of this research is:

H_1: There is significant effect of LMS supported Blended Learning on students' English proficiency in English for Academic Purpose classroom

H_0: There is no significant effect of LMS supported Blended Learning on students' English proficiency in English for Academic Purpose classroom

The entire data test was analyzed by utilizing SPSS 26.

FINDING AND DISCUSSION

The result of pre-test and post-test can be shown at the table below:

Table 4. Descriptive statistic of pre-test and post-test

Pre-Test	Mean	55.98
	Std. Deviation	16.82
	Minimum	8.00
	Maximum	92.00
Post-Test	Mean	57.71
	Std. Deviation	21.17
	Minimum	19.00
	Maximum	95.00

The table above shows that the mean score of pre-test is 55.98, and post-test is 57.71. The Standard Deviation (SD) of pre-test is 16.82, and post-test is 21.17. The minimum score of pre-test is 8.00, and post-test is 19.00, while the maximum score of pre-test is 92.00 and post-test is 95.00. This data indicated that the result of pre-test is better than post-test. The comparison of the pre-test and post-test result is indicated by the diagram below:

Journal of English Educational Study (JEES)
Volume 8 Issue 1 May 2025 Page 31-40
E-ISSN: 2655-0776

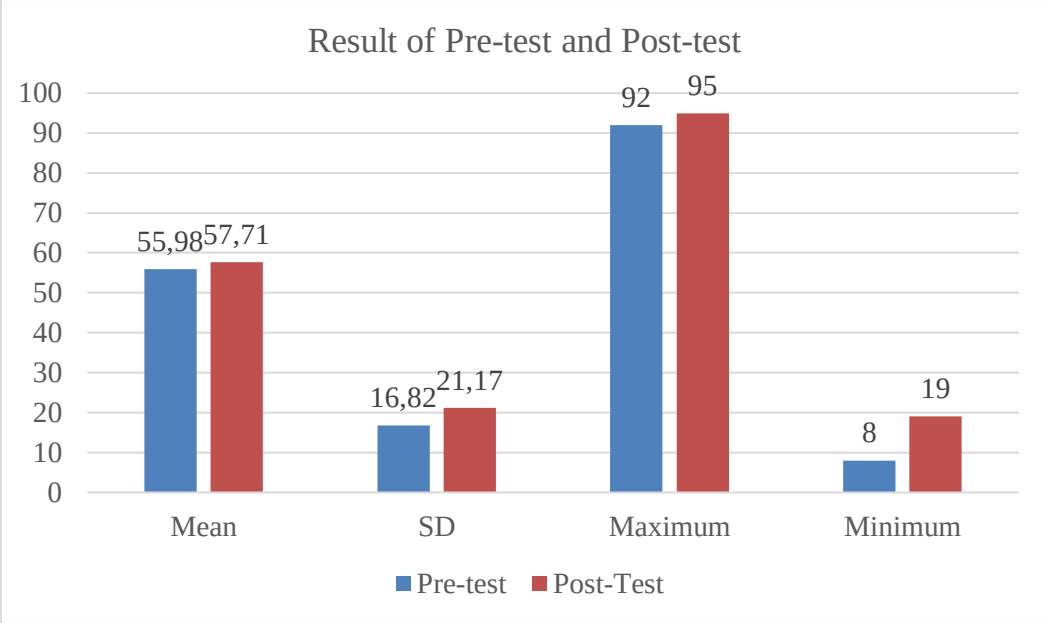

Figure 1. Comparison of pre-test and post-test result

Normality test result

Normality test was conducted using Kolmogorov Smirnov formula, the result of the normality test is shown on the table below:

Table 5. Normality test result

Group	Kolmogorov-Smirnov[a]			Decision
	Statistic	df	Sig.	
Pre-Test	.098	45	.200*	**Normal**
Post-Test	.095	45	.200*	**Normal**

The table above shows that the probability (sig.) of the data of both pre-test and post test is 0.200 which is > 0.05, this indicates that the data of both tests were distributed normally.

Homogeneity test result

The homogeneity test was done using Levene's statistic, the result is shown on the table below:

Table 6. Homogeneity test result

Tests	Levene Statistic	df1	df2	Sig.
Pre-test and Post-test	4.585	1	88	.035

The table shows that the probability (sig.) of the tests was 0.035 which is < 0.05, this indicates that the data variance is not homogenous.

Hypothesis test result

To evaluate the research hypothesis, a statistical hypothesis test was conducted to determine if there were significant differences between the experimental and control groups following treatment. Wilcoxon test was employed for this purpose, as the data were found to be normally

Journal of English Educational Study (JEES)
Volume 8 Issue 1 May 2025 Page 31-40
E-ISSN: 2655-0776

distributed but have unequal variances. The result of hypothesis testing is shown on the table below:

Table 7. Wilcoxon test result

	PostTest - PreTest
Z	-.566[b]
Asymp. Sig. (2-tailed)	.571

The criteria used to interpret the data was:

a) If probability value (sig.) is lower than 0,05, the H_1 is accepted, and H_0 is rejected.

b) If probability value (sig.) is upper than 0,05, the H_1 is rejected, and H_0 is accepted.

According to the result of Wilcoxon test, it is found that the probability (sig.) is 0.571 which is higher than 0.05, this indicates that H_0 is accepted, and H_1 is rejected. This result reveals that There is no significant effect of LMS supported Blended Learning on students' English proficiency in English for Academic Purpose instruction. The insignificant result possibly due to several problems the students faced using LMS, such as technical problems, internet limitation, and online interaction problem but it requires further research to prove. This result contras several previous studies. According to Liu's findings, blended learning can significantly enhance interaction, reduce communication obstacles, and foster a more communicative classroom environment, ultimately resulting in improved English language proficiency for learners (Liu, 2013). Another study revealed that blended learning positively affects students' confidence and English ability (Abdullsttar Sadiq, 2022). It is supported by a research that indicated that blended learning help students improve reading ability and vocabulary mastery (Albatti, 2023). However, another study presented that blended learning has no significant effect on students' achievement in EAP (Erizar et al., 2024), this research found there is no different between blended learning and traditional learning.

Regardless the hypothesis result, LMS-supported blended learning is still helpful and applicable in EAP instruction. It is found that the mean score of post-test is higher than mean score of pre-test which indicates small improvement of students' proficiency. LMS plays important role on the effectiveness of blended learning on improving students' English proficiency. The integration of LMS in blended learning environments significantly enhances English Language Teaching (ELT) by facilitating effective communication, content delivery, and student engagement(Thakre, 2024).Learning Management Systems (LMS) have the potential to significantly enhance student learning outcomes, engagement, and satisfaction.Studies have consistently demonstrated that effective LMS implementation can lead to improved academic performance, increased student motivation, and higher levels of satisfaction with the learning experience. However, the impact of LMS on student outcomes can vary depending on several factors, including the type of instruction being delivered, the specific LMS platform employed,

and the level of student engagement(A P, 2024). Furthermore, LMS benefits university in online teaching and learning, such as 1) facilitating the university's management of the learning process amidst the ongoing COVID-19 pandemic; 2) providing lecturers with a platform for remote instruction via the internet; and 3) enabling campus students to engage in online distance learning (Fitria, 2024). However, it also has disadvantages, such as lack of interaction between students and teacher, require more resources, and technical problem faced by students and teachers such as bad internet connection and LMS system problem.

CONCLUSION

Based on the findings of the Wilcoxon test, the study concludes that LMS-supported Blended Learning has no significant impact on students' English proficiency in English for Academic Purpose (EAP) classrooms. This conclusion is different from several previous studies that have demonstrated the effectiveness of blended learning in enhancing various aspects of language learning, including interaction, communication, confidence, reading ability, and vocabulary mastery. However, LMS-supporter blended learning is still helpful in EAP instruction since students' mean score in post-test is higher than pre-test which indicates small improvement. In conclusion, the findings of this study contribute to the growing body of evidence supporting the utilization of LMS-supported Blended Learning in enhancing English proficiency. Future research should explore the factors that influence the variability in outcomes and develop strategies to optimize the implementation of blended learning in diverse educational contexts.

REFERENCES

A P, R. (2024). The Learning Management System (Lms) And Student Leaning Effectiveness: A Systematic Literature Review. *International Journal of Research Publication and Reviews*, *5*(6), 1857–1861. https://doi.org/10.55248/gengpi.5.0624.1460

Abdullsttar Sadiq, D. (2022). The effects of blended learning on students' achievement in a foundation english course: A study on foundation english students at TISHK University in Erbil, Iraq. *Revista Amazonia Investiga*, *11*(59), 21–34. https://doi.org/10.34069/AI/2022.59.11.2

Albatti, H. (2023). Blended Learning in English Language Teaching and Learning: A Focused Study on a Reading and Vocabulary Building Course. *World Journal of English Language*, *13*(5), 121. https://doi.org/10.5430/wjel.v13n5p121

Al-Busaidi, K. A. (2012). Learners' Perspective on Critical Factors to LMS Success in Blended Learning: An Empirical Investigation. *Communications of the Association for Information Systems*, *30*. https://doi.org/10.17705/1CAIS.03002

Cao, T. X. L. (2023). Benefits and challenges of using LMS in blended learning: Views from EFL teachers and students at a Vietnamese public university. *International Journal of TESOL & Education*, *3*(3), 78–100. https://doi.org/10.54855/ijte.23335

Castro, R. (2019). Blended learning in higher education: Trends and capabilities. *Education and Information Technologies*, *24*(4), 2523–2546. https://doi.org/10.1007/s10639-019-09886-3

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (Eighth edition). Routledge.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed). SAGE Publications.

Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & Sicilia, N. (2018). Blended learning: The new normal and emerging technologies. *International Journal of Educational Technology in Higher Education*, *15*(1), 3. https://doi.org/10.1186/s41239-017-0087-5

Erizar, E., Marzuki, A. G., Hidayati, T., Juliana, R., & Yulia, A. (2024). The Impact of Online Learning on Undergraduate English Students' Achievement. *Journal of English Education and Teaching*, *8*(2), 288–302. https://doi.org/10.33369/jeet.8.2.288-302

Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics*. SAGE Publications.

Fitria, T. N. (2024). Using an Institution Platform of E-Learning in English Language Teaching (ELT) Process at ITB AAS Indonesia. *International Journal of Computer and Information System (IJCIS)*, *5*(1), 22–36. https://doi.org/10.29040/ijcis.v5i1.150

Hockly, N. (2018). Blended Learning. *ELT Journal*, *72*(1), 97–101. https://doi.org/10.1093/elt/ccx058

Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: The relationship between student characteristics, design features and outcomes. *International Journal of Educational Technology in Higher Education*, *14*(1), 7. https://doi.org/10.1186/s41239-017-0043-4

Liu, M. (2013). Blended Learning in a University EFL Writing Course: Description and Evaluation. *Journal of Language Teaching and Research*, *4*(2), 301–309. https://doi.org/10.4304/jltr.4.2.301-309

Ma, L., & Lee, C. S. (2021). Evaluating the effectiveness of blended learning using the ARCS model. *Journal of Computer Assisted Learning*, *37*(5), 1397–1408. https://doi.org/10.1111/jcal.12579

Mohamed, F. A. E. (2021). The Effectiveness of the Blended Learning in Enhancing EFL Learning and Collaboration. *World Journal of English Language*, *12*(1), 92. https://doi.org/10.5430/wjel.v12n1p92

Pallant, J. (2020). *SPSS Survival Manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Routledge. https://doi.org/10.4324/9781003117452

Thakre, N. V. (2024). Learning System Application. *Gurukul International Multidisciplinary Research Journal*. https://doi.org/10.69758/GIMRJ2406I8V12P120