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Blended Learning as a Catalyst for Boosting University Students' Learning Motivation

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ABSTRACT

In the digital era, enhancing the quality of education demands innovative approaches. Blended learning—combining face-to-face and online instruction—has emerged as a promising model to boost students' learning motivation. This study employed a quantitative descriptive design to evaluate the effectiveness of blended learning in improving student motivation at UIN Suska Riau. Data were collected through questionnaires and observations. The population consisted of all students enrolled in the Economic Education Study Program, with a sample size of 143 respondents. The data were analyzed using descriptive statistics and inferential tests, including normality, homogeneity, and paired sample *t*-tests. Findings revealed a significant improvement in students' learning motivation after the implementation of blended learning. The pretest results showed an average motivation score of 38.23, categorized as moderate. After blended learning was applied, the posttest average rose to 52.05, indicating a high level of motivation. A paired sample *t*-test yielded a *p*-value of 0.000 (< 0.05), confirming a statistically significant difference between pretest and posttest motivation levels. The results demonstrate that blended learning significantly enhances student motivation. These findings suggest that integrating blended learning can be an effective strategy for educators aiming to foster motivation and engagement. This study provides practical insights for lecturers and educational institutions seeking to adopt innovative learning models and develop more dynamic instructional strategies.

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1. INTRODUCTION

The rapid development of science and technology continues to transform various aspects of life, particularly in the field of education. Future educational advancements are increasingly influenced by the accelerated growth of information technology and the intensifying competition in the job market. This is evidenced by the emergence of new technologies that demand higher-level skills. One notable shift is the widespread use of the internet in education, which marks a significant phase in the evolution of educational practices (Rahayu, Iskandar, & Abidin, 2022). The integration of information technology

into the educational landscape reflects a broader transformation in how knowledge is accessed and exchanged. According to Hediansah and Surjono (2020), technological advancements are closely linked to the process of information exchange, including within educational environments.

Educational institutions must be capable of adapting their teaching and learning strategies during emergency situations, such as pandemics, when in-person instruction is not feasible. This challenge necessitates innovation, prompting universities to adopt new ideas, technologies, and services to ensure the continuity and quality of learning (Firmadani, 2020). In today's increasingly complex world, the younger generation must be equipped with rich information, strong skills, and a deep understanding to meet future demands. Within this context, teachers play a pivotal role in the learning process. One of the key factors in improving the education system is the implementation of new, efficient learning strategies (Suseny, 2023).

Efficiency refers to accomplishing tasks accurately and effectively, without unnecessary expenditure of time, money, or energy. A process is considered efficient if it incorporates evaluation mechanisms that compare outcomes before and after implementation (Syauqani, 2023). Meanwhile, effective learning refers to meaningful educational experiences that help students meet their learning goals and acquire relevant knowledge, skills, and attitudes in an engaging manner (Supardi, 2018). Learning motivation can be enhanced by setting clear objectives, fostering an appreciation for education, seeking support, and creating a conducive learning environment (Nursalma & Pujiastuti, 2023). In essence, boosting learning motivation requires the integration of continuous educational innovation.

In the modern era, learning innovation requires both lecturers and students to develop their skills beyond traditional, face-to-face instruction. The rapid advancement of technology compels the education sector to adapt by integrating information technology into the learning process (Setiyaningsih & Wiryanto, 2022). This adaptation supports a learning environment that fosters creativity, innovation, efficiency, and effectiveness. According to Nor Fitrah Binti Mohd Haizar, Daisy Mui Hung Kee, and Lai Mei Chong (2020), four key components drive innovation strategy: strategy, resources, capabilities, and processes. These elements are critical in addressing national challenges in higher education.

Blended learning, a model that integrates online learning (e-learning), computer-based learning (offline), and face-to-face instruction, is one such innovation (Dwiyogo, 2018). Its purpose is to deliver cognitive, emotional, and psychomotor learning through diverse media. The success of this model largely depends on students' active participation (Sagala et al., 2019), and its implementation helps lecturers build supportive and interactive learning environments (Rosmandi, Mahdum, & Indrawati, 2021). Blended learning proved essential during the COVID-19 pandemic, offering flexible learning in terms of time and place. As Idris (2018) notes, this model can significantly enhance student interest and motivation.

By combining the strengths of digital platforms with in-person learning, blended learning maximizes flexibility and accessibility while maintaining student engagement (Rohman et al., 2023; Alatas, 2023). It encourages student activity and engagement, utilizing devices such as computers and smartphones. Learning should apply diverse methods to achieve educational goals effectively and keep students motivated (Sanjaya, 2012; Tan et al., 2020; Yamin & Syahrir, 2020). Motivation is a critical factor; without it, students are less likely to engage in learning (Supriani & Ulfah, 2020). Highly motivated learners demonstrate more enthusiasm and persistence, and technology-based methods are one way to foster this motivation (Lase, 2020; Rosmandi et al., 2021).

E-learning exemplifies how internet access transforms learning into a flexible, open, and distributed process. It allows students to learn anytime, anywhere, and collaborate across locations, minimizing the need for conventional classroom settings (Anthony et al., 2022). Blended learning, as a combination of in-person and online methods, supports this flexibility. Studies by Nisa and Hakim (2022) confirm that blended learning accommodates varied learning times and environments, improves

effectiveness, and fosters student communication more effectively than traditional or fully online approaches.

However, challenges remain. One primary obstacle is students' ability to use IT-based learning platforms effectively (Moto, 2019). Despite the benefits of face-to-face instruction, individual learning styles, speeds, and needs vary, posing limitations to a one-size-fits-all model. These differences influence the overall quality and outcomes of the learning process.

Many studies have concluded that blended learning enhances flexibility by allowing students to access learning materials without time or location constraints. It improves understanding, supports collaboration, and facilitates project completion (Hanum, Sari, & Rahmatina, 2023). An additional benefit is that students can revisit digital content and seek clarification during in-person sessions, increasing comprehension and retention (Ulfa et al., 2023). Thus, blended learning continues to emerge as a leading strategy for modern, student-centred education.

One of the institutions adopting this strategy is UIN Suska Riau, an Islamic university in Riau, Indonesia. Initial observations suggest that blended learning enhances educational effectiveness by promoting student independence. In this model, lecturers take on the role of facilitators, while students are encouraged to engage more actively in the learning process. Learning is no longer confined to specific times or physical spaces, as this approach combines both face-to-face instruction (40%) and online learning (60%). This method has been implemented for approximately two years, primarily in response to the COVID-19 pandemic, which significantly disrupted traditional learning systems. As a result, nearly all lecturers at UIN Suska Riau have transitioned to blended learning.

However, the adoption of this model has not been without challenges. Common issues include unreliable internet access, limited data quotas, and low levels of student self-regulation. Despite the widespread implementation of blended learning on campus, systematic research examining its impact—particularly on student learning motivation—remains limited.

Although previous studies have explored the blended learning model in various contexts, this research seeks to provide new insights by focusing specifically on UIN Suska Riau. The study contributes to the existing body of literature by offering a deeper understanding of the practical application and effectiveness of blended learning in Islamic higher education. The novelty of this research lies in its specific focus on the influence of blended learning on student motivation, rather than merely learning outcomes, and in its emphasis on the lecturer's role as a facilitator.

Based on this context, the research addresses the following questions:

1. How is the blended learning model implemented at UIN Suska Riau?
2. What is the level of effectiveness of the blended learning model in increasing students' learning motivation?

2. METHODS

This study was conducted using quantitative descriptive research based on data that can be measured or calculated directly, expressed in numbers or diagrams, and then analyzed descriptively using theories and literature related to the blended learning approach. Learning motivation statistics include research data. Data on learning motivation were collected through questionnaire responses and observations. There are two categories of data sources used in this study: Primary data sources, namely questionnaire-based data collection methods will be used to collect information and Secondary data sources, namely in the form of documents of findings and research documentation activities. Three methods were used to obtain data for this study: questionnaires, interviews, and documentation.

2.1 Questionnaire

This study uses a closed questionnaire. Specifically, the questionnaire is given to respondents, and respondents only need to give a check mark (√) on each question or statement. The following are guidelines for assessing the questionnaire:

Table 1. Scoring of Each Statement

Response	Score	
	Statement Favorable	Statement Unfavorable
Strongly Agree (SS)	5	1
Agree (S)	4	2
Neutral (N)	3	3
Disagree (TS)	2	4
Strongly Disagree (STS)	1	5

So the classification can be explained in Table 2 as follows:

Table 2. Learning Motivation Assessment

	Score	Category
1	46-55	Tall
2	37-45	Currently
3	28-36	Low

Source: Adopted and modified from Sudjana(2017)

Table 3. Student Learning Motivation Decision Criteria

	Percentage	Category
1	81 – 100	Very good
2	61 – 80	Good
3	41 – 60	Currently
4	21 – 40	Bad
5	0 – 20	Very bad

Source: Adopted and modified from Sudjana(2017)

2.2 Documentation Techniques

Data from Research Instruments were obtained using a documentation approach. Instruments are tools used in data collection; if researchers use valid instruments, the resulting data will be accurate. Therefore, it is important to choose the right instrument for this study, which can be related books, regulations, activity reports, photos, documentaries, and data related to the research.

3. FINDINGS AND DISCUSSION

Referring to the Blended Learning model, the study implemented three meetings in the learning process to directly see the effectiveness of the application of the blended learning model in the learning process. The results of the study are described as follows:

3.1 Descriptive Statistical Test

3.1.1 Effectiveness of Blended Learning

Descriptive statistics are intended for the variables used in this study, namely student learning motivation. Based on the results of the questionnaire, the descriptive statistics table is in Table 4.

Table 4. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Effectiveness of Blended Learning	143	63	75	71.82	2.405
Valid N (listwise)	143				

Based on the results of the descriptive statistical analysis in table 4. it is known that the number of respondents in the study (N) is 143. The Blended Learning variable has a minimum value of 63 and a maximum value of 75, with an average blended learning variable of 71.82. While the standard deviation value of blended learning is 2.405 (below average), meaning that blended learning has a low level of data variation.

3.1.2 Description of Student Learning Motivation of Economic Education

Of the 143 respondents from the Department of Economic Education at UIN Suska Riau, they filled out a questionnaire with a total of 11 questions about student learning motivation and a Likert scale with choices ranging from 1 to 5. Student learning motivation at the initial stage (pretest) was still relatively low. Students admitted that they were not enthusiastic about carrying out learning because the learning model tended to always be the same. Students stated that they wanted a learning model that could increase motivation, make students active, and make learning more interesting. The following are the results of student motivation before using the blended learning model:

Table 5. Frequency Distribution Results of Learning Motivation Variables

Category	Interval	Frequency	Presentation
Tall	46-55	10	7
Currently	37-45	57	40
Low	28-36	76	53
Amount		143	100
Average			38.23

Based on Table 5, seven students, representing 7% of the total respondents from the Economic Education Department at UIN Suska Riau, demonstrated high levels of learning motivation, with an average score of 38.3. Their motivation was influenced by several factors, including personal aspirations for academic success, internal needs and drives, goal orientation, self-esteem, engaging learning activities, and a supportive learning environment. These elements collectively contribute to fostering student motivation, emphasizing the importance of creating conditions that consistently encourage learning.

The data further reveal that approximately 47% of students exhibited good learning motivation. However, 53% reported low motivation levels, primarily due to teacher-centered instructional methods. In such environments, students often adopt passive roles, limited to listening without active participation. This indicates that, overall, students in the Economic Education Department at UIN Suska Riau display a moderate level of motivation toward learning economics.

3.1.3 Student Learning Motivation Posttest Stage

Based on the results of the questionnaire given to students, data was obtained that students in the Department of Economic Education at UIN Suska Riau had learning motivation in the high category of 137 students or 92.5% with an average of 50.32 which was in the high category. The results of learning motivation are described in Table 6:

Table 6. Frequency Distribution Results of Learning Motivation Variables

Category	Interval	Frequency	Presentation
High	46-55	137	96
Currently	37-45	6	4
Low	28-36	0	
Amount		143	100
Average			52.05

Table 6 shows that 96% of students have high learning motivation. This shows that the blended learning model has a significant influence on the learning motivation of students majoring in economic education at UIN Suska Riau. Then, 4% of students prefer learning in the classroom together.

The increase in students' learning motivation results at the pretest and posttest stages of learning, can be seen more clearly in the following graph:

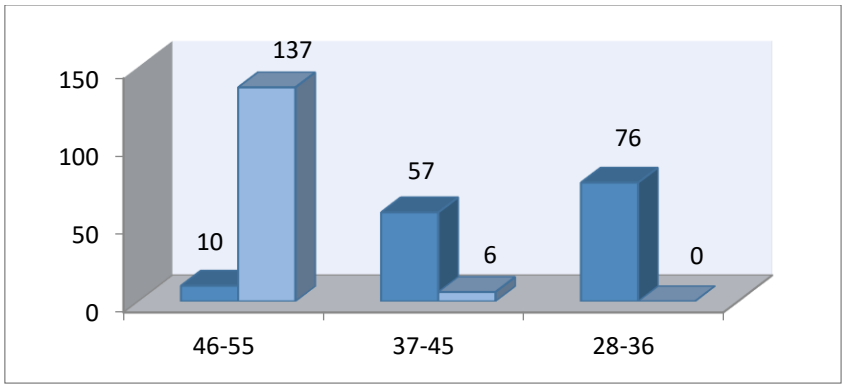

Figure 1. Student Learning Motivation Using Blended Learning

Based on Figure 1, there is a clear distinction in student learning motivation between the pretest and posttest stages, indicating a significant improvement following the implementation of blended learning. Students reported a strong preference for the blended learning model, noting that it enhances their communication skills and encourages active participation. This approach fosters a more meaningful learning experience by shifting the focus from lecturer-centered instruction to student-centered engagement. As a result, students who were previously passive listeners became more involved through interactive discussions and idea exchange. Additionally, the dual learning environment—combining face-to-face and online sessions—provides variety and flexibility, helping to reduce boredom and maintain student interest throughout the learning process.

3.1.4 Description of the Observation Sheet for the Activity of Using the Blended Learning Model

The study was conducted 3 times, and observations were made by lecturers who teach in the Department of Economic Education, UIN Suska Riau. The results of observations on the use of the blended learning model in the first application showed the following results: The first meeting showed that the activity of implementing the blended learning method still showed an average of 37.3 with a moderate category. Lecturers still feel that the use of the blended learning model at this first meeting has not been fully able to make students independent, has not fully made learning effective and has not been able to fully increase student learning motivation. Therefore, the results of this study will be continued in the next stage to ensure that the application of the blended learning method is in the very good category. The second meeting showed a value of 44.4, which means that learning activities using blended learning are already in the very high category. After completing two meetings, to ensure and convince that this model has a significant impact on learning, a third stage observation was carried out.

After three meetings, the results of student learning activities were obtained on average 5 with a Very High category. These results indicate that the blended learning model makes it easier for lecturers

to provide understanding and deliver material to students. Then, the blended learning model also helps students to be more independent in seeking knowledge so it is concluded that the blended learning model is very effective to use in the learning process.

3.2 Inferential Statistical Analysis Techniques

The data analysis technique in this statistical test is through instrument trials, which are carried out on other classes that have studied the same subjects. Invalid statement items will be discarded, and the remaining valid data will be used as instruments in this study. Of the 15 statements, there are 11 valid statements that can be used to continue the research process.

3.2.1 Normality Test

The normality test aims to see whether the data is normally distributed or not so that it can be used for parametric or non-parametric tests. To test normality, the SPSS application is used with the Kolmogorov-Smirnov test.

Table 7. Normality Test Results

		Unstandardized Residual
N		143
Normal Parametersa,b	Mean	0E-7
	Std. Deviation	2.57500033
Most Extreme Differences	Absolute	.099
	Positive	.063
	Negative	-.099
Kolmogorov-Smirnov Z		1.189
Asymp. Sig. (2-tailed)		.119

Based on the research results, a significant value of 0.119 was obtained. Thus, 0.119 > 0.05; it can be said that the data comes from a normally distributed population.

3.2.2 Homogeneity Test

The homogeneity test is carried out to determine whether the research data has homogeneous variance, so the homogeneity test is carried out using the test of homogeneity of variance.

Table 8. Homogeneity Test Results

Levene Statistics	df1	df2	Sig.
2.611	1	284	.107

Based on the research results, a significant value of 0.107 > 0.05 was obtained, which means that the data used in the research is homogeneous.

3.2.3 t-Test Results

This test is intended to assess how lecturers' readiness in choosing learning models affects student motivation. The Paired Sample t-test is a data analysis tool that can be used to determine whether there is a significant difference between the pre-test and post-test phases of using the blended learning model. This test is used because the population data has a sample size of more than 30 and is normally distributed. The results of the pretest and posttest of student learning motivation are presented in Table 9.

Table 9. Paired Sample t-Test Results of Student Learning Motivation

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PRETEST – POSTTEST	-10,399	3.805	.318	-11,028	-9,770	-32,677	142	.000

The results of the Pretest and Posttest showed a significant value (2-tailed) of 0.000 which is smaller than the critical criteria of the study of 0.05 or 0.000 < 0.05. The findings of the paired sample t-test with a value of 0.000 indicate a significant difference between student learning motivation at the pretest and posttest stages of the application of the blended learning model.

Discussion

The present study aimed to determine the impact of the blended learning model on students' learning motivation, particularly among students in the Department of Economic Education at UIN Suska Riau. Following statistical analysis and hypothesis testing, findings revealed that the blended learning model had a significant positive effect on students' motivation to learn. This suggests that the more effectively lecturers implement blended learning strategies, the higher students' motivation levels tend to be. These findings reinforce the idea that instructional strategies directly influence student engagement and motivation.

Learning outcomes are affected by various interrelated factors, including intelligence quotient (IQ), learning models, and learning motivation. IQ, as an inherent cognitive capacity, influences how quickly and effectively students can process and understand information. However, IQ alone is not sufficient to guarantee academic success. A well-structured learning model is essential to accommodate students across a broad spectrum of abilities, including those with lower IQ levels. When implemented effectively, such models can support and motivate both high-achieving and struggling students (Prawita, Prayitno, & Sugiyarto, 2019). In this regard, the blended learning model plays a crucial role by emphasizing collaborative learning environments in which students work together to analyze and solve real-world problems. This collaborative component aligns with constructivist learning theory, where knowledge is constructed through interaction and engagement with others (Nasrudin, Agustina, Akrim, Ahmar, & Rahim, 2018).

Motivation is recognized as a key driver of learning. Without adequate motivation, students are unlikely to engage meaningfully in academic tasks, regardless of their cognitive abilities. Motivation serves as the internal force that drives individuals to achieve desired outcomes. It can manifest in various forms, such as intrinsic interest in the subject matter or extrinsic rewards like grades and recognition (Supriani & Ulfah, 2020). Students with high learning motivation often display greater enthusiasm, commitment, and persistence, which contribute to better academic performance.

Blended learning offers a unique advantage in this context. It combines traditional face-to-face instruction with online components, allowing students to access learning materials and engage with content beyond the confines of time and space. This flexibility enhances student autonomy and encourages self-directed learning, both of which are essential for sustaining motivation (Krismadinata et al., 2020). By enabling students to learn at their own pace and access a diverse range of resources, blended learning supports a more personalized learning experience.

Moreover, motivation can be influenced by both internal and external factors. Internally, a student's interest, goals, and self-efficacy can drive learning behavior. Externally, the teaching methods and learning environment significantly contribute to shaping motivation. In this study, the role of

lecturers as facilitators of blended learning was particularly important. The structure and delivery of content through blended learning enabled students to interact with the material in a more dynamic and meaningful way compared to traditional, lecture-based instruction. Sulihin (2012) found that students taught through blended learning exhibited higher levels of motivation than those taught using conventional methods.

These findings are consistent with previous research. Idris (2018) emphasized that students' motivation to learn increases when they are provided with flexible access to learning materials, including multimedia and interactive platforms. The digital dimension of blended learning encourages students to explore knowledge from various sources, thereby enhancing their literacy and promoting creative learning. As students engage more deeply with the content and experience a sense of control over their learning, their motivation is reinforced.

Furthermore, Husamah (2014) argued that the strength of blended learning lies in its integration of diverse learning modalities—online learning and face-to-face instruction—into a cohesive learning experience. This combination maximizes the strengths of each mode and creates a richer educational environment. The face-to-face component allows for immediate feedback and peer interaction, while the online component promotes reflection, self-regulation, and extended access to resources.

Blended learning also supports various learning styles, addressing the diversity found in university classrooms. While some students thrive in traditional classroom settings, others may benefit more from the flexibility and interactivity of online environments. By accommodating these preferences, blended learning creates an inclusive educational model that can improve student satisfaction and motivation. The increase in motivation, in turn, strengthens students' commitment to learning and can lead to better academic outcomes.

In conclusion, the findings of this study affirm that blended learning has a significant impact on students' learning motivation. The flexibility, interactivity, and personalized nature of this model cater to diverse learning needs and preferences. Motivation is a critical determinant of learning success, and blended learning serves as an effective strategy to foster and sustain it. By combining the strengths of face-to-face instruction with the autonomy and accessibility of online learning, blended learning not only enhances student engagement but also contributes to the overall quality of education. Therefore, higher education institutions, especially in the context of Islamic universities like UIN Suska Riau, should continue to adopt and refine blended learning approaches as part of their pedagogical innovations.

4. CONCLUSION

Based on the findings of this study, it can be concluded that the blended learning model significantly influences the learning motivation of students in the Department of Economic Education at UIN Suska Riau. The more effectively lecturers implement blended learning strategies, the higher students' motivation tends to be, as the instructional model directly impacts their engagement and enthusiasm for learning. This research confirms that blended learning, which combines online and face-to-face methods, is a valuable strategy for enhancing student motivation. However, this study is limited by its focus on a single department within one institution, which may affect the generalizability of the results to broader educational contexts. Future research is recommended to include larger, more diverse samples across multiple disciplines and institutions to better understand the broader impact of blended learning. Additionally, further studies could explore how specific components of blended learning—such as digital tools, content delivery methods, or interaction frequency—individually contribute to learning motivation.

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