

# The Impact of E-Learning on Motivation and Its Influence on the Interest in Studying Within the Campus Environment of Pelita Bangsa University in Cikarang

Nina Indriana<sup>1</sup>, Sally Badriya Hisniati<sup>2</sup>, Mohammad Ridwan<sup>3</sup>, Supiana<sup>4</sup>, Qiqi Yuliati Zaqiah<sup>5</sup>, Hasan Basri<sup>6</sup>

<sup>1,2</sup>Universitas pelita bangsa, Indonesia

<sup>3</sup>Sekolah Tinggi Ilmu Adab & Budaya Islam (STIABI) Riyadul 'Ulum, Indonesia

<sup>4,5,6</sup>UIN Sunan Gunung Djati Bandung, Indonesia

ninaindry@gmail.com, sally.badriah@pelitabangsa.ac.id, moh.ridwan@stiabiru.ac.id, supiana@uinsgd.ac.id, qiqiyuliatizaqiah@uinsgd.ac.id, hasanbasri@uinsgd.ac.id

## Abstract

*This study investigates the impact of e-learning and the campus environment on students' learning motivation and interest, as well as the mediating role of learning motivation. Using a quantitative causal methodology, the research involved 100 undergraduate students from Undiknas Denpasar, with data collected via questionnaires. Analysis was conducted using Microsoft Excel on responses from 130 students in various engineering disciplines through Google Forms. Findings reveal a significant positive effect of e-learning and the campus environment on learning motivation, with 46% of respondents highly satisfied with E-Learning (E-Campus UPB), 50% satisfied with campus facilities, 59% stating that media and facilities support their motivation, and 49% acknowledging the influence of these factors on their learning interest at the Faculty of Engineering UPB Cikarang.*

## Keywords

E-Learning; Campus Environment; Learning Interest; Learning Motivation



## I. Introduction

Given the influence of online learning during the COVID-19 pandemic in previous semesters (2020-2022), many educational institutions continue to incorporate online methods or adopt a hybrid learning model. This research investigates the motivations and aspirations of students in selecting Universitas Pelita Bangsa among the many private higher education options in Bekasi Regency. It assesses whether the quality and quantity of facilities sufficiently support student learning through E-Learning methods. As a result, the author delves into the importance of advancing e-learning in higher education, as it provides flexibility in learning and facilitates interaction between educators and students, both in-person and through digital platforms. With smartphones and computers as learning tools and the internet as a resource, students can quickly access information from anywhere. Additionally, they can collaborate with peers on assignments. This perspective aligns with Divayana's (2017) argument that the demand for e-learning facilities in higher education is essential for several reasons: e-learning is user-friendly and efficient, enhancing the learning experience both inside and outside the classroom. Through e-learning, students can explore, deepen, and expand their understanding of course materials using various online resources. Moreover, e-learning promotes a culture of enthusiasm for learning and encourages students to independently seek knowledge and information.

In light of the impact of online learning during the COVID-19 pandemic in the previous semesters (2020-2022), the educational processes in several institutions are still influenced by online methods or adapted to a hybrid learning approach. This research focuses on the reasons and aspirations of students for choosing Universitas Pelita Bangsa amidst the numerous private higher education institutions in the Bekasi Regency. It examines whether the quality and quantity of facilities adequately support student learning through E-Learning methods. Consequently, the author explores the significance of developing e-learning in higher education, as it offers learning flexibility, allowing interaction between educators and students not only in face-to-face settings but also through electronic media. With smartphones and computers serving as learning tools and the internet as a medium, students can access information swiftly and from any location. Additionally, students can collaborate with their peers on assignments. This aligns with Divayana's (2017) assertion that the need for e-learning facilities in higher education is crucial due to several considerations: e-learning is user-friendly and expedient, facilitating the learning process both inside and outside the classroom. Through e-learning, students gain the ability to explore, deepen, and broaden their understanding of course materials from various online resources. Furthermore, e-learning fosters a culture of enthusiasm for learning and encourages students to actively seek knowledge and information independently.

The success of e-learning is influenced by various factors, with learner motivation being a crucial element. As noted by Magdalena and Napitupulu (2018), student motivation plays a key role in increasing the likelihood of students engaging with e-learning. However, higher education institutions encounter several challenges when implementing e-learning. To tackle these challenges and the issues related to e-learning methodologies, one effective approach is to enhance student motivation, as it is closely linked and mutually influential. Student motivation can stem from two main sources: intrinsic factors, which arise from within the individual, and extrinsic factors, which are influenced by external elements. Both types of motivation can develop in response to specific stimuli, encouraging students to pursue learning. The introduction of learning stimuli through e-learning can invigorate and boost students' enthusiasm for studying. Individual motivation levels can vary significantly, shaped by students' sociocultural backgrounds. For example, international students may demonstrate different learning motivations compared to their local counterparts (Kazakova and Shastina, 2019). In this study, motivation is treated as a mediating variable, serving as a link that affects the relationship between e-learning and the campus environment in relation to learning interest. The variables of e-learning and the campus environment do not directly influence learning interest; instead, motivation mediates the effects of these two factors. A mediating variable, by definition, influences the dependent variable, creating an indirect relationship between the independent and dependent variables (Sugiyono, 2013).

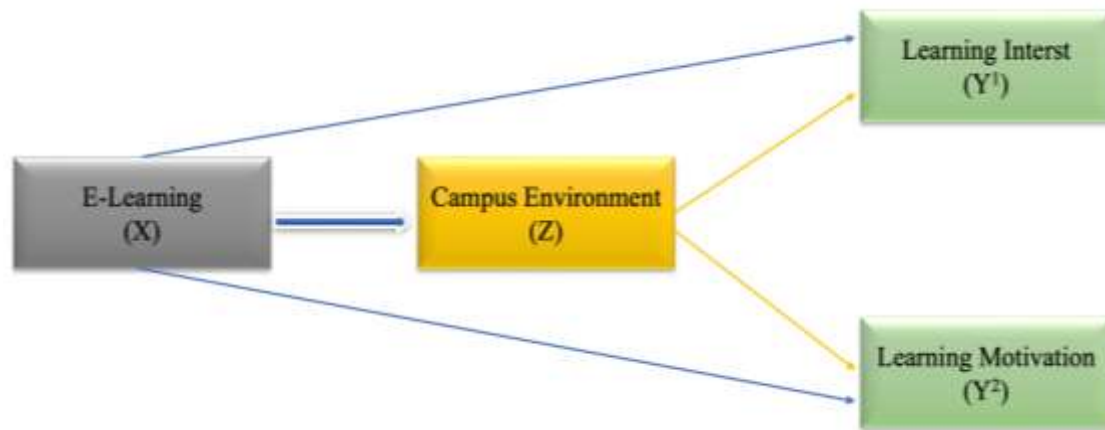
This study reveals that the independent variables of e-learning and the campus environment have a significant impact on the dependent variable through learning motivation. Without aspirations or a desire to learn, as well as an understanding of the benefits of education, students' learning motivation will not develop. Consequently, educators need to implement effective strategies to cultivate students' motivation to learn. In today's information and communication technology era, e-learning emerges as a valuable tool for the educational process. A well-designed e-learning experience can inspire students to engage more deeply with their studies. By utilizing electronic media, educational materials can be delivered in a way that makes the learning process more stimulating and attractive to students (Wena, 2018). Research by Magdalena and Napitupulu (2018) indicates that various dimensions of e-learning—such as technological

design, pedagogy, ethics, and interface—positively and directly influence students' learning motivation. This suggests that enhancing e-learning facilities and infrastructure can boost students' motivation to learn. Moreover, e-learning fosters student collaboration, indicating that improved e-learning resources can increase students' interest in working together to tackle problems. Additionally, the campus environment, which includes the availability of facilities and infrastructure, plays a crucial role in enhancing students' learning motivation. The educational environment serves as a space where individuals gain knowledge, both directly and indirectly (Kadir, 2012).

The learning environment plays a crucial role in shaping students' motivation to learn, especially within the campus setting, which includes the available facilities and infrastructure (Suwastika, 2017). This campus environment not only influences students' motivation but also their interest in learning. Interest arises from an individual's perception of their surroundings, their academic outcomes, and their interactions with the environment. When a person is genuinely interested in a subject, it can serve as a powerful motivator for achieving success in that field. This interest fuels significant energy to pursue their passions (Khairani, 2014). High levels of motivation positively affect students' interest in learning, which can lead to improved academic performance. The learning abilities of highly motivated students differ markedly from those of their less motivated peers. However, research by Sukerti (2016) suggests that motivation does not always correlate with academic success. Currently, the millennial generation is undergoing a significant transition towards modernization and global progress. Indonesian youth, as future leaders responsible for fulfilling the nation's aspirations, must develop critical and open-minded thinking to advance the country. Unfortunately, this generation seems to show a waning interest in education, along with a decline in their enthusiasm for learning. Two main factors contribute to this decrease in interest among today's youth: internal factors related to the students themselves and external factors stemming from their environment. Internal factors reflect students' awareness of the importance of education for achieving future success (Kompasmania, June 9, 2019).

Students' strong motivation to learn is shaped by external factors, which in turn influence their psychological well-being. These external factors include the learning methods employed at UPB Cikarang, particularly the use of e-learning platforms (e-campus). E-learning enhances the educational experience by making it more engaging. Students are drawn to e-learning because it offers multimedia resources that provide a clearer and more tangible grasp of the material. Additionally, the interactive nature of the learning process allows for flexibility in terms of time and location. E-learning features also enable students to easily download course materials and assignments. A positive learning environment is recognized as a social factor that can enhance motivation (Yusuf, 2012). The results of this study are consistent with the research by Sulisworo and Dahlan (2017), which found significant differences in learning outcomes between students using e-learning and those participating in traditional face-to-face instruction. The findings showed that students engaged in e-learning achieved superior results compared to their peers in conventional settings. Motivation can be a key predictor of student learning outcomes. The combination of problem-based e-learning and high motivation leads to optimal learning results in KKPI. Furthermore, research by Lin et al. (2017) indicated that student motivation is greater when utilizing digital learning methods compared to traditional approaches. Additionally, the digital learning model positively influences learning motivation. Based on the background information presented earlier, this study aims to investigate whether e-learning and the campus environment have a direct effect on learning motivation and interest, as well as whether they indirectly affect learning interest through

learning motivation. The goal of this research is to identify the direct impacts of e-learning and the campus environment on both learning motivation and interest, and to evaluate the indirect effects of e-learning and the campus environment on learning interest mediated by learning motivation. Below is the research framework:



**Figure 1.** *Conceptual Framework*

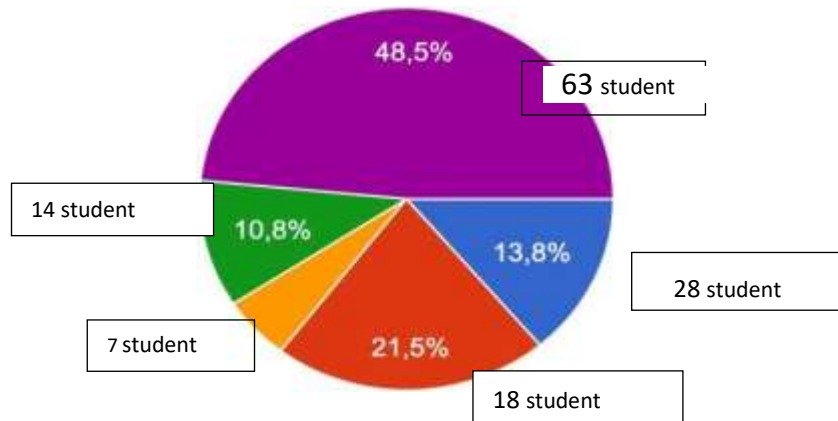
Research conducted by Lin et al. (2017) indicates that students exhibit significantly higher motivation to learn when using digital platforms compared to traditional methods. Furthermore, Swastika (2017) highlights the critical influence of the campus environment on learning motivation. Nursyam (2019) notes that e-learning not only enhances learning motivation but also increases students' interest in their studies. This interest is shaped by both e-learning and the campus environment, as discussed by Andriana (2017) and Fauziah et al. (2017). In the current era of information and communication technology, electronic learning (e-learning) serves as an effective means of fostering students' motivation to learn. A supportive campus environment further boosts students' enthusiasm and motivation for their studies. Therefore, this study is essential for exploring how learning motivation mediates the effects of e-learning and the campus environment on enhancing students' interest in learning.

## II. Research Methods

This study adopts a quantitative approach employing a causal methodology, with data analysis performed using Microsoft Excel. Data was gathered through questionnaires distributed to students from the Faculty of Engineering, specifically targeting those in Civil Engineering, Industrial Engineering, Computer Engineering, and Environmental Engineering, resulting in a total of 130 respondents via Google Forms. The research aims to identify relationships among various variables, including the connection between e-learning and both motivation and interest in learning. It also investigates the relationship between the campus environment and motivation and interest in learning, as well as the link between motivation and interest in learning. Furthermore, this study will analyze the role of motivation as a mediating variable that affects the relationship between e-learning and the campus environment on interest in learning. It posits that e-learning does not directly impact interest in learning, as this relationship is mediated by learning motivation. Similarly, the campus environment does not directly affect interest in learning, as it is also mediated by learning motivation. The focus of the research is on e-learning, the campus environment, learning motivation, and interest in learning. The study was conducted over a

week at Universitas Pelita Bangsa (UPB) in Cikarang. The participants in this research are undergraduate students (S1) from the Faculty of Engineering at UPB Cikarang. The survey utilized a Likert scale, and questionnaires were distributed among students from the Faculty of Engineering, including those in Civil Engineering, Industrial Engineering, Computer Engineering, and Environmental Engineering, totaling 130 respondents. Data processing was carried out using Microsoft Excel, as detailed below.

[https://docs.google.com/forms/d/e/1FAIpQLSeUSDNooQa37cAKHRV1k9w-BNwN4la\\_Z6yQWMgxgFHnutf4Zw/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSeUSDNooQa37cAKHRV1k9w-BNwN4la_Z6yQWMgxgFHnutf4Zw/viewform?usp=sf_link)



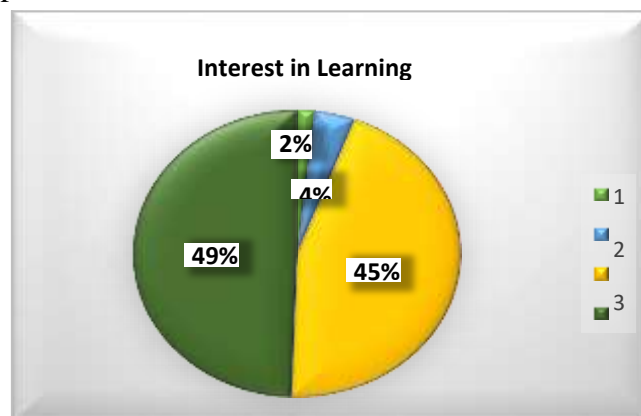
**Figure 2.** Respondent Identification

- Informatics Engineering Study Programme Student
- Students of Civil Engineering Study Programme
- Architecture Engineering Study Programme Student
- Student of Environmental Engineering Study Programme
- Students of Industrial Engineering Study Programme

**Table 1.** Question Variables

No.	1 (strongly disagree)	2 (disagree)	3 (agree)	4 (strongly agree)
1.	3	4	54	69
2.	1	6	61	62
3.	2	7	56	65
4.	3	4	62	61
Total	9	21	233	257

Presented in the pie chart below:



**Figure 3.** Variables of Learning Interest



### III. Results and Discussion

The analysis results and discussion regarding the direct influence of e-learning and the campus environment on motivation and interest in learning, as well as the indirect influence of e-learning and the campus environment on learning interest through learning motivation, are presented as follows.

#### 3.1 Campus Environment

The analysis of the campus environment at Universitas Cikarang indicates that respondents find it to be quite adequate in terms of size and facilities. The campus comprises two buildings, each with six floors. The cleanliness of the campus is consistently maintained, with cleaning staff regularly ensuring that all areas, including classrooms and restrooms, are well-kept and pleasant. UPB offers high-bandwidth internet facilities, which significantly assist students in their learning activities. The library at UPB Cikarang is also well-equipped, having established a partnership with Bank Indonesia (BI Corner). Geographically, UPB Cikarang is located in Bekasi Regency, where the climate tends to be quite warm; thus, the campus has made efforts to provide appropriate air conditioning to ensure student comfort during lectures. Students have reported that the classroom temperature is very comfortable, with the air conditioning functioning effectively. The relationships between faculty and students are positive, as well as the social interactions among students. This is further supported by the results of a questionnaire distribution, which revealed that 50% of respondents were very satisfied, 30% were satisfied, 16% were somewhat dissatisfied, and 4% expressed dissatisfaction. The following provides a virtual depiction of the campus environment.



*Figure 4. Campus Environment of Pelita Bangsa University Cikarang*

#### 3.2 Motivation for Learning

An analysis of student motivation indicators shows a high level of satisfaction among students, marked by a strong desire and determination to excel in their academic endeavors. Students demonstrate a significant enthusiasm for learning, along with clear

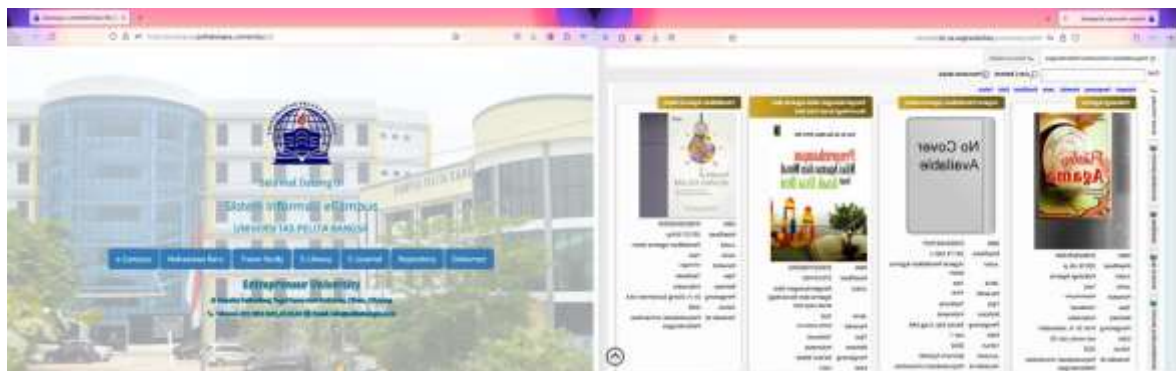
aspirations and goals for their future. Psychologically, they seek recognition for their academic accomplishments and find the learning activities engaging, particularly due to the implementation of an Outcome-Based Education (OBE) curriculum at UPB Cikarang. Equally crucial for maintaining student motivation is a supportive learning environment, enhanced by various facilities. This is reflected in the responses of 130 participants, where 50% expressed high satisfaction, 30% reported moderate satisfaction, while 16% indicated dissatisfaction, and the remaining 4% conveyed very low satisfaction.

### 3.3 Interest in Learning

The analysis of students' interest in learning reveals a genuine enthusiasm for their studies, with students showing serious engagement and finding the learning process both challenging and enjoyable. Additionally, students actively participate and express a desire to stay engaged in their education. This is evident in the data, where 49% of students reported a very strong interest in learning, 45% indicated a good level of interest, while 4% felt no interest at all, and 2% expressed a very low level of interest.

### 3.4 The Influence of E-Learning in Campus Settings on Student Motivation and Engagement

The findings of the analysis reveal that e-learning positively and significantly enhances the learning motivation of students in the Engineering Faculty at Universitas Pelita Bangsa (UPB). The electronic learning approach adopted by Undiknas effectively boosts students' motivation and enthusiasm for their studies. As the implementation of e-learning model indicators at UPB improves, students' motivation to participate in their education also increases. Students in the UPB Faculty of Engineering value the e-learning resources, feeling empowered to download course materials in various formats, including PDF, Word, Excel, and PowerPoint. Notably, 61% of the 130 students surveyed, or 79 individuals, expressed strong agreement (indicating a high level of satisfaction) with the comprehensive e-campus link that offers access to e-books and other educational materials. Below is a visual representation (screenshot):



*Figure 5. Illustration 10 Teaching Material Page*

Subsequently, students perceive that the instructor lacks sufficient expertise in managing and updating e-learning materials. This is evidenced by 62 students, or 48%, expressing agreement, while 58 students, or 45%, indicated strong agreement. Furthermore, students feel that the learning process is not yet optimally conducted in an interactive manner and lacks adequate feedback. Specifically, 50% of the students, equating to 67 individuals, expressed agreement, and 41%, or 43 students out of 130, indicated strong agreement. Only 20 students, representing 7%, expressed dissatisfaction,

[illegible]

Students from the Faculty of Engineering at UPB believe that e-learning can be accessed anytime and anywhere. This is supported by survey results, where a significant majority expressed strong agreement: 82 students (63%) shared this perspective, while 44 students (34%) agreed, and only 4 students (4%) disagreed. The accompanying image features a screenshot that highlights a comprehensive menu of functionalities. Students can utilize it for tracking attendance, searching for e-book references, and checking class schedules. Furthermore, any information released by the campus is regularly uploaded, enabling students to stay updated on ongoing activities and participate in learning through the E-campus UPB application.



In the following question about updates to online materials and the adaptation of content to new technological advancements within the student e-campus application, the feedback revealed a moderate level of satisfaction. Specifically, 42% of the 54 respondents expressed strong agreement, indicating a high degree of contentment. Additionally, 48% showed agreement, reflecting satisfaction from 63 students, while 8% (10 students)



disagreed, and 2% expressed strong disagreement, indicating dissatisfaction with the online material updates. Similarly, regarding the ease of accessing e-learning and the availability of e-learning facilities, students reported a satisfactory experience, with 48% agreeing and 45% strongly agreeing or expressing high satisfaction. However, 7% of students indicated dissatisfaction by either disagreeing or strongly disagreeing. This dissatisfaction is largely due to occasional challenges in accessing the E-Campus, often stemming from memory capacity issues that do not match the number of application users. Currently, the e-campus system can support only 10,000 users at once, but during peak times, the number of students accessing the application frequently exceeds this limit, leading to slow performance and errors.

The point at which the learning tools available in e-learning facilitate direct communication (discussion) between instructors and students is considered satisfactory, as indicated by 50% of respondents, or 65 students, expressing agreement or satisfaction. Additionally, 39% of students reported being very satisfied with the learning tools offered on the e-campus platform. Conversely, 11% of students expressed dissatisfaction, likely due to occasional technical issues encountered within the system. Below is a section from one of the pages within the e-campus application that enables two-way communication between instructors and students.



**Figure 8.** Chat Page in the E-Campus System

From the above presentation, it can be concluded that the respondents, or students, expressed strong agreement with the statements regarding learning motivation. This indicates that the students possess a very high level of learning motivation.

## IV. Conclusion

E-learning and the campus environment play a crucial role in shaping students' motivation and interest in learning. Not only do they have a direct effect on learning interest, but they also influence it indirectly through learning motivation. This suggests that enhancing the implementation of e-learning features and improving the campus environment can significantly boost students' motivation and interest in their studies. Furthermore, motivation can partially mediate the relationship between e-learning and the campus environment and learning interest, indicating that learning motivation is not the

only factor that enhances students' engagement in learning. Given the limitations of this research, the author recommends that higher education institutions prioritize the development of a Learning Management System (LMS). An LMS would enable institutions to track the activities of both educators and students throughout the learning process and align with the systems established by the Ministry of Education and Culture. This would facilitate the monitoring of educational activities within the institution, which could aid in the categorization of universities. By implementing an LMS, institutions and educators can create more engaging e-learning content tailored to student preferences, enhance security measures to reduce temporary disruptions caused by virus attacks, and increase storage capacity in accordance with the institution's server capabilities.

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