

Enhancing Learning Effectiveness in Higher Education through Active Learning Approaches

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ABSTRACT

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Active learning, learning effectiveness, student engagement, higher education, qualitative study.



Learning effectiveness in higher education continues to be a significant concern, particularly in learning environments that still rely heavily on lecture-based instruction. Although such approaches allow for efficient content delivery, they often limit student engagement and reduce opportunities for meaningful learning. This study aims to explore how active learning approaches can enhance learning effectiveness from the perspective of university students. A qualitative research design was employed to capture students' experiences and perceptions of active learning. The study involved university students who participated in learning activities such as group discussions, collaborative tasks, problem-solving exercises, and reflective practices. Data were collected through classroom observations, reflective writings, and semi-structured interviews. The findings indicate that active learning fosters higher levels of engagement, encourages participation, and promotes deeper understanding of learning materials. Students also reported increased confidence in expressing ideas and a greater sense of responsibility toward their learning. In addition, active learning was found to support the development of critical thinking and the ability to connect theoretical concepts with real-life situations. Overall, this study highlights that active learning contributes to more effective and meaningful learning experiences by creating interactive, student-centered environments. It suggests that integrating active learning into higher education can support sustained engagement and improved learning outcomes

Efektivitas pembelajaran di pendidikan tinggi masih menjadi perhatian, terutama di lingkungan yang bergantung pada metode ceramah. Meskipun efisien dalam penyampaian materi, pendekatan ini sering membatasi keterlibatan mahasiswa dan mengurangi pembelajaran yang bermakna. Penelitian ini bertujuan mengeksplorasi bagaimana pembelajaran aktif dapat meningkatkan efektivitas pembelajaran dari perspektif mahasiswa. Penelitian menggunakan desain kualitatif dengan melibatkan mahasiswa dalam aktivitas seperti diskusi kelompok, tugas kolaboratif, pemecahan masalah, dan refleksi. Data dikumpulkan melalui observasi, tulisan reflektif, dan wawancara semi-terstruktur. Hasil menunjukkan bahwa pembelajaran aktif meningkatkan keterlibatan, partisipasi, dan pemahaman yang lebih mendalam. Mahasiswa juga menjadi lebih percaya diri dalam menyampaikan ide serta lebih bertanggung jawab terhadap proses belajar. Selain itu, pembelajaran aktif mendukung pengembangan berpikir kritis dan kemampuan mengaitkan teori dengan situasi nyata. Secara keseluruhan, pembelajaran aktif menciptakan pengalaman belajar yang lebih efektif dan bermakna melalui lingkungan yang interaktif dan berpusat pada mahasiswa, serta berkontribusi pada peningkatan keterlibatan dan hasil belajar..



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INTRODUCTION

In recent years, higher education has been increasingly challenged to provide learning experiences that are not only informative but also meaningful and transformative. Universities are expected to equip students with the ability to think critically, collaborate effectively, and apply knowledge in diverse contexts. However, in many cases, teaching practices still rely on conventional lecture-based approaches, where learning is largely dominated by one-way communication. In such environments, students often take on passive roles, receiving information without actively engaging in the learning process.

This condition raises concerns about the effectiveness of learning in higher education. While students may acquire theoretical knowledge, they often face difficulties when required to apply it in practical situations. The gap between knowing and doing suggests that learning effectiveness cannot be measured solely by content mastery, but must also consider how students engage with and experience the learning process. When students are not actively involved, learning tends to remain superficial and less impactful. The demands of contemporary education further highlight the limitations of passive learning. Students are expected to develop higher-order thinking skills, including analysis, evaluation, and problem-solving. These competencies require active engagement and meaningful interaction, which are rarely achieved through traditional teaching methods alone. In addition, many students become accustomed to passive learning habits, making it challenging for them to participate actively, express ideas, and take initiative in the classroom. Several contextual factors contribute to the persistence of this issue. Large class sizes, limited instructional time, and established teaching traditions often constrain the implementation of more interactive learning approaches. Moreover, both educators and students may need time to adapt to learning environments that require greater participation and responsibility. These challenges indicate the need for approaches that can encourage active involvement while maintaining learning effectiveness.

Active learning has emerged as a relevant response to these concerns. By emphasizing participation, interaction, and reflection, active learning shifts the focus from teaching to learning. Students are encouraged to engage directly with the material through discussions, collaboration, and problem-solving activities. This process allows them to construct knowledge actively rather than receive it passively, leading to deeper understanding and more meaningful learning experiences.

Furthermore, active learning provides opportunities for students to develop confidence and a sense of ownership over their learning. When students are involved in the learning process, they are more likely to engage, contribute ideas, and reflect on their understanding. This engagement plays a crucial role in shaping learning effectiveness, as it supports both cognitive and affective development. Despite its potential benefits, the implementation of active learning in higher education remains uneven. While previous studies have demonstrated its positive impact, many of them focus primarily on measurable outcomes such as academic performance. There is still limited exploration of how students perceive active learning and how it influences their engagement and learning effectiveness from their own perspectives.

Understanding these aspects is essential to ensure that learning approaches are not only effective in theory but also meaningful in practice. Therefore, this study aims to explore how active learning is perceived by students and how it influences their engagement and perceived learning effectiveness in higher education contexts.

Literature Review

Active learning has been widely recognized as an approach that promotes student engagement and deeper understanding. It emphasizes the role of learners as active participants who construct knowledge through interaction, discussion, and reflection. In higher education contexts, active learning has been associated with increased participation, improved motivation, and enhanced critical thinking.

In addition, active learning supports collaborative learning environments, where students learn from one another through shared experiences. This interaction not only enhances understanding but also

develops communication and social skills. Furthermore, active learning encourages students to apply knowledge in practical contexts, making learning more relevant and meaningful.

However, although many studies have reported positive outcomes, most of them focus on quantitative measures such as test scores and academic performance. There is still a need to explore students' experiences and perceptions to better understand how active learning influences learning effectiveness from a qualitative perspective.

Research Gap

Despite the growing interest in active learning, there is limited research that explores how students perceive its implementation and how it affects their engagement and learning effectiveness. Previous studies tend to focus on outcomes rather than experiences, leaving a gap in understanding the learning process from the students' point of view. Addressing this gap is important to provide a more comprehensive understanding of how active learning contributes to meaningful learning. By examining students' perspectives, this study seeks to offer insights into how active learning can be implemented more effectively in higher education.

Research Objectives

This study aims to explore the role of active learning approaches in enhancing learning effectiveness in higher education. Specifically, it seeks to understand students' perceptions of active learning and examine how it influences their engagement and perceived learning effectiveness.

Research Questions

1. How do university students perceive the implementation of active learning approaches in higher education contexts?
2. To what extent do active learning approaches influence students' engagement and perceived learning effectiveness?

METHOD

Research Design

This study employed a qualitative research design to explore university students' perceptions of active learning approaches and to understand how these approaches influence their engagement and perceived learning effectiveness. A qualitative approach was selected because it allows for an in-depth exploration of students' experiences, interpretations, and reflections within the learning process. Rather than focusing on numerical measurement, this study emphasizes how students make meaning of their learning experiences. In educational research, qualitative inquiry is particularly appropriate when the objective is to capture participants' voices and understand the complexity of learning as a lived experience.

Research Setting and Participants

The research was conducted in a higher education context where active learning strategies were integrated into classroom instruction. The participants consisted of approximately 50 university students who were enrolled in courses implementing active learning approaches. These approaches included group discussions, collaborative tasks, and problem-based learning activities.

Participants were selected using purposive sampling to ensure that they had direct experience with active learning environments. The inclusion of students from different academic backgrounds aimed to capture diverse perspectives and experiences. Participation in the study was voluntary, and ethical considerations such as informed consent, confidentiality, and the right to withdraw were strictly maintained throughout the research process.

Research Instruments

The primary instrument used in this study was an open-ended qualitative questionnaire administered through an online platform. The questionnaire functioned as a written reflective tool, allowing participants to describe their learning experiences in their own words. This approach enabled the collection of rich and detailed data, as participants were not restricted by predefined response options.

The questionnaire consisted of several open-ended questions designed to explore students' perceptions of active learning, their level of engagement during learning activities, and their views on the effectiveness of the learning process. Participants were encouraged to elaborate on their responses and provide examples based on their actual experiences in the classroom.

Collection Procedure

Data collection was conducted over a specified period following the implementation of active learning activities in the classroom. The open-ended questionnaire was distributed to participants through an online platform, allowing them to complete it at their convenience. This approach provided participants with sufficient time to reflect on their experiences and express their thoughts more thoroughly.

All responses were collected anonymously to ensure confidentiality and to encourage honest and authentic feedback. The use of an online questionnaire also supported accessibility and flexibility, enabling participants to respond without time pressure or external influence.

Data Analysis

The data collected from the open-ended questionnaire were analyzed using thematic analysis. This method was chosen because it allows for the identification and interpretation of patterns within qualitative data, making it suitable for exploring students' perceptions and experiences.

The analysis began with a familiarization stage, where all responses were read repeatedly to gain an overall understanding of the data. Following this, initial codes were generated by identifying meaningful segments related to students' perceptions, engagement, and learning effectiveness. These codes were developed inductively, emerging directly from the participants' responses.

The codes were then organized into broader themes by identifying patterns and connections across the data. These themes were reviewed and refined to ensure clarity and consistency. Each theme was carefully defined to represent key aspects of students' experiences with active learning.

To enhance the trustworthiness of the findings, the analysis focused on maintaining consistency between the data and interpretations. The final themes were then used to construct a comprehensive narrative explaining how active learning influences students' engagement and perceived learning effectiveness in higher education.

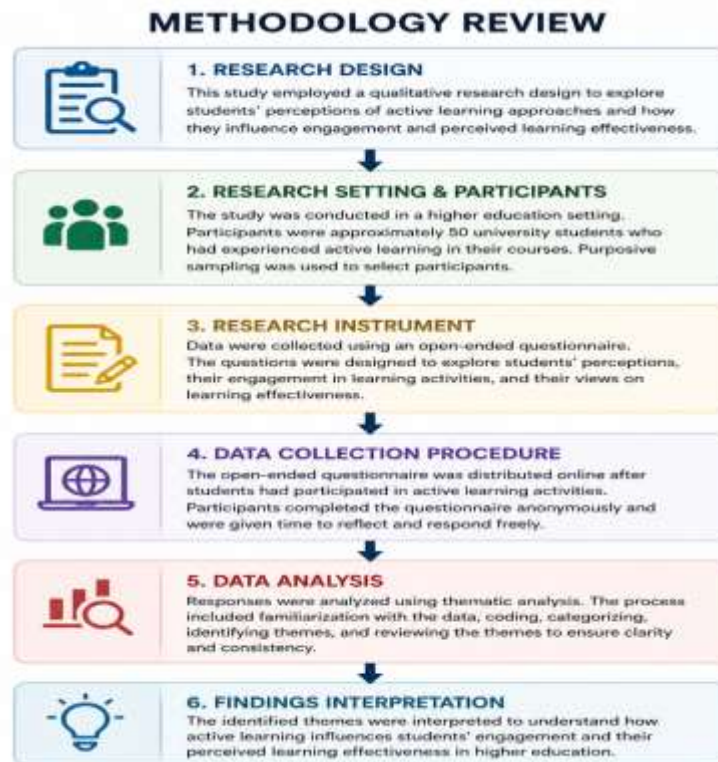


Figure 1. Methodology Review

This figure illustrates the overall research process employed in this study. It begins with the selection of a qualitative research design, followed by the identification of participants through purposive sampling. Data were collected using an open-ended questionnaire distributed online after the implementation of active learning activities. The collected responses were then analyzed using thematic analysis, including coding, categorizing, and identifying key themes. Finally, the findings were interpreted to understand students' perceptions, engagement, and perceived learning effectiveness in higher education contexts.

RESULT AND DISCUSSION

This section presents the findings of the study based on thematic analysis of students' responses to the open-ended questionnaire. The results are organized into key themes that reflect students' perceptions of active learning, their level of engagement, and their perceived learning effectiveness. These themes are closely aligned with the research questions and provide insight into how active learning is experienced in higher education contexts.

Theme 1: Students' Perceptions of Active Learning

The findings reveal that most students perceive active learning as a more engaging and meaningful approach compared to traditional lecture-based instruction. Students described active learning as an approach that allows them to be directly involved in the learning process rather than simply receiving information from the lecturer. This sense of involvement contributed to a more dynamic and interactive classroom atmosphere.

Several participants expressed that active learning made the class more interesting and less monotonous. One student noted, *"I feel more interested in the class because I can participate and share my ideas, not just listen."* This response reflects a shift from passive learning to active participation, where students feel that their contributions are valued.

In addition, students perceived active learning as an approach that supports better understanding. Rather than memorizing information, they were encouraged to explore and discuss concepts with their peers. This aligns with the idea that learning becomes more meaningful when students actively construct knowledge through interaction and reflection.

Overall, these findings indicate that students hold positive perceptions of active learning, viewing it as more interactive, engaging, and supportive of meaningful learning experiences.

Theme 2: Students' Engagement in Active Learning

The second theme highlights the influence of active learning on students' engagement. The data show a noticeable increase in students' participation during learning activities. Students reported that they felt more motivated to engage in discussions, ask questions, and collaborate with their peers.

Many participants mentioned that group discussions and collaborative tasks encouraged them to express their ideas more confidently. One student stated, *"When we work in groups, I feel more comfortable to speak and share my opinion."* This suggests that a supportive and interactive environment plays a crucial role in enhancing student engagement.

Furthermore, active learning appeared to reduce students' hesitation to participate. In traditional classrooms, some students reported feeling reluctant to speak due to fear of making mistakes or being judged. However, active learning activities created a more inclusive atmosphere where students felt safer to contribute.

Another important finding is that engagement was not limited to participation alone but also involved cognitive involvement. Students reported that they paid more attention and thought more deeply about the material when they were actively involved in tasks. This indicates that active learning fosters both behavioral and cognitive engagement.

Theme 3: Perceived Learning Effectiveness

The third theme focuses on how students perceive the effectiveness of learning through active learning approaches. The findings suggest that students believe active learning enhances their understanding and helps them retain knowledge more effectively.

Students reported that activities such as problem-solving and discussions allowed them to see concepts from different perspectives. One participant explained, *"I understand the material better because we discuss it together and see different opinions."* This highlights the role of interaction in deepening comprehension.

In addition, active learning was perceived to help students connect theoretical knowledge with real-life situations. Learning activities that involved practical scenarios made the content more relevant and easier to understand. This relevance increased students' motivation and interest in learning.

Another significant finding is the development of critical thinking skills. Students mentioned that they were required to analyze, evaluate, and respond to ideas during discussions. This process encouraged them to think more deeply rather than simply memorizing information.

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Moreover, active learning contributed to increased confidence in learning. Students felt more capable of expressing their ideas and engaging in academic discussions. This confidence is an important indicator of effective learning, as it reflects both understanding and readiness to apply knowledge.

Discussion

The findings of this study demonstrate that active learning plays a significant role in enhancing students' engagement and perceived learning effectiveness in higher education. Students' positive perceptions of active learning suggest that interactive and student-centered approaches are more aligned with their learning needs compared to traditional lecture-based methods.

The increase in student engagement observed in this study supports the idea that learning becomes more effective when students are actively involved. Engagement in this context is not only behavioral but also cognitive and emotional, as students show greater interest, participation, and investment in the learning process.

Furthermore, the findings highlight that learning effectiveness is closely related to how students experience the learning process. When students are given opportunities to interact, reflect, and apply knowledge, they are more likely to develop deeper understanding and critical thinking skills. This reinforces the view that effective learning is not solely about content delivery, but about creating meaningful learning experiences.

In addition, the supportive environment created through active learning helps reduce anxiety and build confidence among students. This is particularly important in higher education, where students are expected to actively participate and communicate their ideas.

Overall, the results suggest that active learning is not only an instructional strategy but also a transformative approach that reshapes how students engage with knowledge. By promoting participation, interaction, and reflection, active learning contributes to more effective and meaningful learning experiences.

CONCLUSION

This study highlights the significant contribution of active learning approaches in enhancing students' engagement and perceived learning effectiveness in higher education. Based on the findings, it is evident that students respond positively to learning environments that encourage participation, interaction, and collaboration. Active learning shifts the learning process from passive knowledge reception to active knowledge construction, allowing students to become more involved in their own learning.

The results indicate that active learning not only increases students' willingness to participate but also fosters deeper understanding of the subject matter. Through discussions, collaborative tasks, and problem-based activities, students are able to explore different perspectives, develop critical thinking skills, and connect theoretical knowledge with real-life contexts. These experiences contribute to a more meaningful and reflective learning process.

Furthermore, the study reveals that active learning helps build students' confidence and reduces hesitation in expressing ideas. A supportive and interactive classroom environment plays an essential role in encouraging students to communicate more openly and engage more actively in learning activities. This finding emphasizes that effective learning is closely linked to both cognitive and psychological aspects of the learning experience.

Despite its benefits, the implementation of active learning requires careful planning and facilitation from educators. Teachers need to design meaningful activities, create inclusive learning environments, and guide students in actively participating without feeling overwhelmed. Therefore, active learning should not be viewed merely as a teaching technique, but as a holistic approach that integrates pedagogy, interaction, and student-centered learning principles.

In conclusion, active learning serves as a transformative approach in higher education, promoting not only academic achievement but also student engagement, confidence, and critical thinking. Future research may explore the integration of active learning with digital technologies or examine its long-term impact on students' academic performance and lifelong learning skills.

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