

# Constructivist Philosophy of Student-Centred Learning Approach in Indonesian Higher Education Context

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## Abstract

With an emphasis on the educational process in the setting of higher education, this research investigates the constructivist philosophy in the application of the student-centered learning (SCL) approach and the advantages and difficulties of applying constructivist theory to the SCL approach. This study applied a descriptive qualitative study. This study uses classroom observations and interviews conducted in a variety of teaching situations at a private institution in Bandung, Indonesia. According to the results, the majority of the teaching and learning process incorporates elements of constructivist philosophy, particularly the role of the lecturer, learner autonomy, active and collaborative learning, technology usage, assessment approaches, and knowledge production. It encourages more critical thinking, guided interactive learning experiences, and generally improves students' engagement. The value of this research lies in the development and enhancement discourse on pedagogical approaches at higher education level, especially for an Indonesian situation where it may provide a significant approach to develop learning from constructivist perspective. However, the implementation of SCL faces several challenges, including differences in students' readiness for self-directed learning directions and resistance to conventional pedagogy from some lecturers.

**Keywords:** Constructivist Philosophy; Student-Centred Learning; Higher Education

## INTRODUCTION

The constructivist ideology has greatly influenced modern teaching approaches since it stresses the learner's active participation in knowledge creation. It is founded on the theories of renowned scholars such as Vygotsky and Piaget. In a dynamic learning process that follows constructivist principles, students build on their prior experiences and understanding via interaction, reflection, and discovery (Richardson, 2020). Constructivist philosophy, which primarily draws from the works of Piaget and Vygotsky, holds that knowledge is not passively obtained but rather generated via involvement, reflection, and inquiry (Richardson, 2020). This kind of instruction highlights how important it is for students to actively interact with new content in order to expand on what they already know and get a more profound, customized understanding. Current research indicates that constructivism boosts student involvement and autonomy. Active learners demonstrate better comprehension and retention than passive ones (Chen & Brown, 2021). Constructivist methods are seen to be essential for fostering students' critical thinking and preparing them for the challenges of the current world (Kumar & Bhatia, 2022). Students' active construction of their own knowledge is emphasized by constructivist philosophy. This idea holds that knowledge is not a static thing that can be transmitted from lecturer to student, but is instead dynamically formed via meaningful participation and reflective inquiry (Richardson, 2020). This method fosters critical thinking and problem-solving skills by placing students at the center of the learning process and pushing them to draw connections between new information and what they already know and have experienced. Constructivism also includes collaborative learning since Vygotsky emphasized the importance

of social interaction and cultural resources in the process of cognitive development. Recent studies have demonstrated the efficacy of constructivist teaching methods, particularly in fostering student autonomy and active participation. Students that engage in active learning environments retain more information and have a deeper understanding of the subject matter than those who attend traditional, lecture-based courses, according to Chen and Brown's (2021) research. Furthermore, constructivist methods equip students with the critical thinking skills necessary to manage difficult, real-world circumstances, according to Kumar and Bhatia (2022). These results demonstrate the value of constructivist philosophy in modern education and suggest that it is crucial for encouraging flexibility and lifelong learning in an increasingly dynamic environment. The outcome of these principles is the student-centered learning (SCL) approach, which places students at the center of the teaching and learning process and prioritizes their needs, interests, and autonomy in the classroom (Yates et al., 2021). According to the core tenets of constructivism, SCL sees lecturers as facilitators rather than as the exclusive providers of knowledge, supporting students as they do their own research and develop their own understanding (Ali, 2022). SCL has grown in popularity globally, especially in higher education, since it fosters the development of critical thinking, problem-solving, and lifelong learning abilities (Nguyen & Vu, 2021). There are benefits and drawbacks to using SCL to integrate constructivist theory in Indonesia, where traditional lecture-based methods are still widely used. For instance, even if staff and students report increased engagement and improved critical thinking, the transition to SCL necessitates substantial adjustments in teaching methods, which can be challenging in traditional teaching and learning environments (Rahman & Anwar, 2023). The concepts of constructivism and student-centered learning (SCL), which stresses the value of students as active learners, are closely connected (Ali, 2022). SCL encourages independence, cooperation, and problem-solving skills while fostering an educational environment where students take ownership of their education. According to Yates et al. (2021), SCL approaches promote critical thinking by putting students at the center of the classroom and having lecturers facilitate knowledge rather than command it. This shift helps students better internalize knowledge and fosters the development of skills essential for lifelong learning, such self-motivation and adaptability (Nguyen & Vu, 2021). SCL has becoming more popular in higher education, especially in fields where traditional lecture-based approaches have historically been the norm (Nguyen & Vu, 2021). Recent studies have shown that institutions that utilize SCL see increases in student participation, pleasure, and academic success (Chen et al., 2022). When SCL is utilized in the classroom, students usually report feeling more involved and valued, which leads to a richer learning experience (Rahman & Anwar, 2023; Hwang & Lee, 2023). Despite its shortcomings, research indicates that SCL offers a number of benefits. Students who take SCL lessons have been shown to have better critical thinking skills, problem-solving abilities, and a greater desire to study (Chen et al., 2022; Arifin et al., 2021). These findings are in line with constructivist theory, which holds that students are better equipped to create knowledge when they actively participate in and take responsibility for their learning process (Ali, 2022). He found that students in SCL circumstances are more confident in their ability to apply information in real-world settings, which emphasizes the value of this approach in preparing students for problems that may come up after graduation.

Despite the growing of research on constructivism and SCL, there are still gaps in the operationalization of constructivist principles in teaching and learning contexts, such as Indonesian higher education. Although recent studies have examined the effectiveness of SCL in increasing student enthusiasm and results, few studies have examined the actual use of these learning approaches in Indonesia and the unique challenges and adjustments required (Ali, 2022; Chen et al., 2022; Kumar & Bhatia, 2022; Rahman & Anwar, 2023; Yates et al., 2021). This study aims to bridge this gap by examining the ways in which constructivist philosophy

affects the application of student-centered learning in higher education. It does this by outlining how it is implemented in a teaching-learning context and stressing both the potential benefits and the difficulties that lecturers and students may face.

By looking at this relationship, the study adds to our understanding of how philosophical frameworks influence teaching strategies and offers recommendations for enhancing the student-centered learning restrictions of higher education in Indonesia. Based on the above theories, this study aims to explore how SCL is applied in the following areas of constructivist philosophy: knowledge construction, technology use, learner autonomy, active learning, collaborative learning, and the role of lecturers. The benefits and difficulties of integrating constructivist theory with SCL in a higher education setting are also highlighted in this study.

The concerns are formulated using the following questions:

- a. How is the constructivist ideology implied into the student-centered learning strategy in higher education?
- b. What are the advantages and difficulties of applying a SCL approach based on constructivism in higher education?

## METHOD

This study employed a qualitative research methodology. It is seen to be appropriate for examining participants' viewpoints, experiences, and contextual factors in relation to the use of student-centered learning (SCL) in higher education (Creswell & Poth, 2018). When examining educational ideologies and practices, in particular, qualitative approaches can provide researchers with profound insights into social phenomena (Miles et al., 2020). Using qualitative methods, the study aimed to gather detailed, descriptive data that reflect the diverse subjective experiences of lecturers and students in Indonesian higher education. A case study design has been selected for this research because it provides a comprehensive analysis of real-world applications of SCL and constructivist ideas, which makes it ideal for analyzing teaching strategies under specific conditions (Yin, 2018). Classroom observations and semi-structured interviews were the primary methods used to collect data. Semi-structured interviews are commonly used in qualitative research to allow for freedom in questions while ensuring that significant topics are covered (Kallio et al., 2016). They let participants to openly express their ideas and experiences with SCL, providing a window into the benefits and challenges of using constructivist approaches. Classroom observations provided a firsthand look at teaching and learning processes, which helps to validate interview findings and provide contextual knowledge (Tracy, 2020). By using these technologies to triangulate data sources, the study expected to increase the precision and thoroughness of the findings (Creswell & Creswell, 2021). The study involved five lecturers and fifty students at a private institution, especially in departments that employ SCL approaches as part of their teaching tactics. Students provided thoughtful feedback on how SCL approaches affected their educational experiences, and lecturers were participated because they are responsible for implementing these approaches. Purposive sampling, which allows for the selection of individuals with relevant knowledge and experience, was used to choose participants who are directly participating in SCL-based courses in order to optimize the information-richness of the sample (Palinkas et al., 2015).

The collected data were examined using thematic analysis, a popular approach for identifying, analyzing, and summarizing patterns (themes) in qualitative data (Braun & Clarke, 2019). Thematic analysis is well-suited to examining complex social and educational phenomena because it allows for a comprehensive examination of recurring themes in both observational and interview data (Guest et al., 2021). Understanding the data, developing preliminary codes, searching for themes, assessing themes, defining and labeling themes, and producing the final report are the six processes that will comprise the analysis process (Nowell et al., 2017). The

following aspects of constructivist philosophy formed the basis of the analysis: the role of the lecturer, learner autonomy, active and collaborative learning, technology utilization, assessment approaches, and knowledge building.

## RESULTS AND DISCUSSION

### Results

#### Implementation of Constructivist Philosophy in SCL Approaches

The use of constructivist theory to student-centered learning (SCL) methodologies in Indonesian higher education showed a commitment to actively involve students in their education. The results of each component, which were obtained from lectures and classroom observations, are shown in the following table along with an example of associated utterances in English (translated from Indonesian). Here are the specifics:

**Table 1.** Result from Observation and Interview with Lecturers

Aspect	Findings from Observations	Insights from Interviews with Lecturers
<b>Role of the Lecturer</b>	<p>Lecturers were observed facilitating rather than lecturing, using prompts to guide discussions and asking probing questions to deepen understanding.</p> <ul style="list-style-type: none"> <li>□ <i>"What do you think about this problem? Let's hear your thoughts first before I give mine."</i></li> <li>□ <i>"I'm here to guide you through the process, but the solution will come from your exploration."</i></li> <li>□ <i>"If you get stuck, let's discuss your approach, and I'll provide some hints to help you move forward."</i></li> </ul>	<p>Lecturers described their role as a "coach," emphasizing the importance of providing students with the tools and confidence to explore topics independently.</p> <ul style="list-style-type: none"> <li>□ <i>"My role is to guide students to find the answers themselves rather than giving them directly. I provide scaffolding when necessary."</i></li> <li>□ <i>"I always encourage students to ask questions and think critically, even if their ideas are not fully developed yet."</i></li> <li>□ <i>"Facilitation means creating opportunities for students to explore and experiment without fear of making mistakes."</i></li> </ul>
<b>Learner Autonomy</b>	<p>Students were seen choosing topics for assignments and collaborating on how to approach problem-based tasks.</p> <ul style="list-style-type: none"> <li>□ <i>"You can choose any topic from the list, or if you have a unique idea, feel free to propose it."</i></li> <li>□ <i>"How do you plan to achieve your goals for this project? Write down your steps and share them with your peers."</i></li> <li>□ <i>"Evaluate your own work using the rubric I provided before I give my feedback."</i></li> </ul>	<p>Lecturers noted that allowing students to make choices in their learning increases motivation and engagement, though it requires initial guidance to help students structure their learning goals effectively.</p> <ul style="list-style-type: none"> <li>□ <i>"I believe students learn best when they have the freedom to choose what and how they want to learn."</i></li> <li>□ <i>"I encourage them to design their own learning plans, and I support them in refining these plans as needed."</i></li> <li>□ <i>"Autonomy doesn't mean leaving students alone; it means providing them with tools to take charge of their own learning."</i></li> </ul>
<b>Active Learning</b>	<p>Activities included case studies, lab-based projects, and interactive problem-solving sessions. Students actively engaged in group discussions and presented their findings.</p> <ul style="list-style-type: none"> <li>□ <i>"Instead of just reading about the concept, try solving this case study in groups and present your findings."</i></li> </ul>	<p>Lecturers emphasized that active engagement, such as analysing real-world scenarios, helps students apply theoretical knowledge. They mentioned that integrating constructivist strategies ensures students can relate lessons to their own experiences.</p> <ul style="list-style-type: none"> <li>□ <i>"We use project-based activities because it helps students apply theoretical knowledge to solve real-world problems."</i></li> </ul>

	<ul style="list-style-type: none"> <li>□ <i>"You've learned the theory—now, how would you apply it in this real-world situation?"</i></li> <li>□ <i>"Let's break into teams to explore different aspects of this topic and come back to share your discoveries."</i></li> </ul>	<ul style="list-style-type: none"> <li>□ <i>"Active learning is not just about doing—it's about thinking and reflecting on what they've done."</i></li> <li>□ <i>"In my class, students often work on case studies where they simulate decision-making scenarios."</i></li> </ul>
<p><b>Collaborative Learning</b></p>	<p>Students worked in teams to solve problems, and collaborative tools like shared online platforms (e.g., Google Docs) were used to co-create project outputs.</p> <ul style="list-style-type: none"> <li>□ <i>"Work in pairs and brainstorm possible solutions to this problem, then compare your ideas with another group."</i></li> <li>□ <i>"Discuss your approach with your teammates and decide together how you'll present your project."</i></li> <li>□ <i>"Remember, the goal is to learn from each other—ask questions, share your thoughts, and build on one another's ideas."</i></li> </ul>	<p>Lecturers highlighted that teamwork helps students learn from peers, develop interpersonal skills, and build collective knowledge, aligning with the constructivist emphasis on social learning.</p> <ul style="list-style-type: none"> <li>□ <i>"Group work is essential. It teaches students how to communicate their ideas and learn from others."</i></li> <li>□ <i>"I always emphasize the value of teamwork because different perspectives lead to richer solutions."</i></li> <li>□ <i>"Sometimes I assign rotating roles in group tasks to ensure everyone contributes and learns equally."</i></li> </ul>
<p><b>Use of Technology</b></p>	<p>Observations included the use of learning management systems (LMS), virtual labs, and gamified quizzes to supplement in-person discussions and assignments.</p> <ul style="list-style-type: none"> <li>□ <i>"Post your reflections in the online forum, and don't forget to comment on at least two of your classmates' posts."</i></li> <li>□ <i>"Use the simulation software to experiment with different variables and record your observations."</i></li> <li>□ <i>"Check out the shared folder for resources I uploaded and use them as a starting point for your project."</i></li> </ul>	<p>Many lecturers mentioned technology as a cornerstone for modern SCL, particularly for facilitating access to diverse resources and fostering interactive learning. Some noted challenges with ensuring all students have equal access to digital tools.</p> <ul style="list-style-type: none"> <li>□ <i>"Technology allows me to provide diverse learning resources and personalize the experience for each student."</i></li> <li>□ <i>"I encourage students to use digital tools for collaboration, such as shared documents or virtual whiteboards."</i></li> <li>□ <i>"Using online platforms, students can engage in discussions beyond the classroom, which extends their learning."</i></li> </ul>
<p><b>Assessment Methods</b></p>	<p>Students submitted reflective journals and participated in peer feedback sessions. Evaluation rubrics focused on process and collaboration, not just the final product.</p> <ul style="list-style-type: none"> <li>□ <i>"Instead of a traditional exam, you'll submit a reflective journal about what you've learned and how you applied it."</i></li> <li>□ <i>"Peer review each other's work using the feedback form I've given you—it's a part of your grade."</i></li> <li>□ <i>"Your performance will be assessed based on the process and how you overcame challenges, not just the final result."</i></li> </ul>	<p>Lecturers preferred formative assessments, such as reflective writing and peer reviews, over traditional exams, as these allow students to critically analyze their learning journey and demonstrate process-based understanding.</p> <ul style="list-style-type: none"> <li>□ <i>"I focus on formative assessments like reflective journals and peer reviews to capture the learning process."</i></li> <li>□ <i>"Instead of traditional exams, I prefer to assess students through projects and presentations."</i></li> <li>□ <i>"The best assessments are those where students can self-evaluate and learn from their mistakes."</i></li> </ul>
<p><b>Knowledge Construction</b></p>	<p>Students were encouraged to draw connections between coursework and their personal experiences or current</p>	<p>Lecturers described their focus on helping students integrate new knowledge with prior learning through open-ended questioning, discussions, and encouraging interdisciplinary connections.</p>

events, facilitating deep contextual understanding.

□ *"Think about a similar experience you've had and relate it to what we're discussing today."*

□ *"How does this new concept fit with what you already know? Does it challenge or confirm your previous understanding?"*

□ *"Let's look at how this idea connects to current events—can you identify any relevant examples?"*

□ *"I often ask students to relate new concepts to their prior knowledge or experiences."*

□ *"We discuss current events or case studies so they can see how theory applies in real life."*

□ *"Encouraging them to make connections between disciplines fosters deeper understanding and critical thinking."*

An overview of the elements involved in putting the constructivist philosophy of the student-centered learning approach into practice is given in the table above, which also includes particular findings from interviews and classroom observations. The role of the lecturer, learner autonomy, technological utilization, active and collaborative learning, evaluation approaches, and knowledge production are all discussed.

### **Benefits and Challenges of Applying Constructivist Theory to the SCL Approach**

Classroom observations and student interviews highlighted both the advantages and difficulties of applying a constructivist-based student-centered learning (SCL) approach in higher education.

The growth of students' social skills and collaboration was the advantage mentioned by the students. Based on the results of the observations and interviews, students stated that one of the main advantages of using a constructivist-based student-centered learning (SCL) approach was the improvement of social skills and collaboration. Particularly when working in groups, interpersonal communication, problem-solving, and mutual support are fostered—all of which are beneficial in both academic and professional contexts. For instance, a student stated, *"During our group discussions, I feel like I'm able to learn from my peers, and I'm more confident in speaking out and contributing ideas."* Another student wrote: *"My team's cooperation has improved my comprehension of the material and allowed me to practice listening."* Additionally, one student said, *"We develop critical thinking skills in the classroom by solving real-world situations, which will benefit us in our future careers. Applying what we have learnt is more important than memorization."* Another student said, *"I think more when we work on challenges or share ideas with others. My grades have improved as a result of this active learning."*

Furthermore, the observed advantage also demonstrated enhanced critical thinking and problem-solving abilities. Instead than just remembering facts, students said SCL helped them think critically and solve real-world problems. A student said, *"In this class, I feel like I'm learning to solve problems rather than just passing exams."* It has been shown that constructivist methods improve critical thinking by pushing students to challenge presumptions and reevaluate long-held beliefs.

However, putting SCL concepts into practice is not without its difficulties. The study's first problem was that children are not prepared for self-directed learning. One problem found was that some students found it difficult to have the independence needed in a constructivist classroom. Regarding this disadvantage, a number of students made similar statements. For instance, *"I prefer it when the lecturer gives us clear instructions. I don't always know how to*

*solve problems on my own.*” This is in line with research showing that academic self-efficacy and self-regulation are essential for success in SCL settings.

Some lecturers' preference for traditional education was another obstacle. Deeply held beliefs in traditional pedagogy, concerns about losing control of the classroom, and skepticism about students' capacity to direct their own learning were the main reasons why some lecturers are reluctant to implement Student-Centered Learning (SCL) approach. Student interviews uncover divergent opinions. A student said, "*Sometimes, it feels like the lecturer doesn't trust us to think for ourselves.*" Another student stated, "*I wish we had more opportunities to work on projects, but our lecturer says it's not effective for exams.*" These remarks highlight a tension between lecturers' emphasis on regulated, test-focused training and students' yearning for independence.

## Discussion

The result above provides an overview of the elements involved in implementing the constructivist philosophy of the student-centered learning approach, as well as specific findings from interviews and classroom observations. The role of the lecturer, learner autonomy, technological utilization, active and collaborative learning, evaluation approaches, and knowledge production are all covered. The lecturer's role as an lecturer shifted from imparting information to facilitating it. Their main goal was to help students learn by providing guidance, resources, and comments that let them do their own research. According to Blaschke and Marín (2020), educational strategies that allow students to take charge of their education are encouraged in higher education. Additionally, Komatsu et al. (2021) stressed that in order to guarantee that students actively engage with knowledge rather than passively absorb it, facilitators must encourage critical thinking and reflective practices.

Since constructivist ideas hold that knowledge is created by students through their experiences and active engagement in the learning process, learner autonomy was a crucial element of student-centered learning. According to Väättäjä and Ruokamo (2021), fostering autonomy in higher education aids students in establishing their own learning goals and controlling their own progress. Self-directed learning, in which students guided their own educational journey, was closely linked to this idea. Additionally, learner autonomy engaged and encouraged students, which led to deeper learning outcomes (Blaschke, 2012) and made them lifelong learners (Cao & Pho, 2024). By providing access to resources and instruments that support individualized learning, technology also made a substantial contribution to student autonomy (Buchem et al., 2020).

A fundamental element of constructivist education was active learning, where students engaged in exercises that promoted the application of information via collaboration, problem-solving, and critical thinking. Active learning has been shown to increase student engagement and understanding in recent studies. According to Komatsu et al. (2021), students are more likely to acquire critical thinking abilities in environments that promote active learning. Instead of passively absorbing information, students actively create knowledge through inquiry-based and project-based learning by looking into real-world scenarios. Lee and Kim (2021) asserted that this type of instruction enhances knowledge application and retention by enabling students to relate theory to practice. Students can also reflect on their own learning processes through active learning.

Another crucial component of student-centered learning is collaborative learning, which upholds Vygotsky's constructivist philosophy, which sees education as a social activity. According to Blaschke and Marín (2020), peer contacts and group-based efforts are essential for knowledge co-construction. Students gained from exchanging viewpoints, critiquing one other's concepts, and working together to overcome obstacles. Teamwork improved students' interpersonal and intellectual abilities, increasing their value in the workplace (Marín et al.,

2020). Through discussion and shared experience, collaborative learning—facilitated by both online and in-person platforms—promoted a deeper understanding of information (Buchem et al., 2020).

Because it facilitated collaboration and material availability, technology was playing an ever-more-important role in advancing student-centered learning. According to Vääätäjä and Ruokamo (2021), students can engage in learning activities outside of the classroom thanks to digital resources including learning management systems (LMS), online discussion boards, and collaborative platforms. By enabling asynchronous learning, these tools foster learner autonomy by letting students progress at their own speed. According to Buchem et al. (2020), technology plays a crucial role in creating personalized learning experiences that let students modify their course of study and engage with information in novel ways. Additionally, the majority of students from different countries wanted to utilize ICT to learn (Muthmainnah, et al., 2021).

Constructivist education bases assessments on process rather than outcome, which is consistent with the idea that learning is a continuous and dynamic process. According to Blaschke and Marín (2020), formative assessments—like reflective diaries and peer evaluations—offer crucial insights into students' learning, enabling lecturers to give prompt feedback and support ongoing development. Allowing for self-evaluation and incorporating assessment into learning activities might help students reflect on their progress, claim Marín et al. (2020). In contrast to conventional summative assessments, this approach put grades ahead of the learning process. Additionally, portfolio-based assessments enabled students to record their learning throughout time, offering a more comprehensive view of their progress (Komatsu et al., 2021).

In terms of the benefits and challenges of applying constructivist theory to the SCL approach, this study revealed the perceived advantages of implementing constructivist-based SCL approaches in Indonesian higher education. Increased enthusiasm and participation among students was one of the most often mentioned advantages (Huda et al., 2023). Since they are actively creating knowledge rather than passively absorbing it, students were more likely to be engaged and excited about their learning processes, according to the observation made (Cohen et al., 2021). Since students acquire critical thinking and problem-solving skills that are essential for their future careers, such participation rouse academic accomplishment (Sukardi et al., 2021). According to research, resistance may be decreased by proper training and the gradual adoption of SCL approaches. A project-based approach, for instance, has been shown to significantly increase critical thinking and engagement in higher education when paired with well-organized feedback systems and effective lecturer guidance (Sukardi et al., 2021; Almulla, 2023). It might also be beneficial to encourage lecturers and students to discuss the goals and benefits of SCL. However, the efficiency of switching from knowledge transmitters to facilitators may worry some lecturers. According to recent studies, a lack of institutional support and training exacerbates opposition to SCL strategies, resulting in a preference for conventional approaches (Aliusta & Özer, 2023).

To sum up, further studies and legislative modifications are likely to be required for the successful application of SCL in higher education. Researchers argue that providing lecturers with professional development opportunities in constructivist pedagogy and SCL approaches is essential to overcoming challenges and maximizing the benefits of this approach (Nguyen & Vu, 2021). With a worldwide focus on educating students for a complicated, rapidly changing environment, SCL is a helpful foundation for cultivating adaptable, critical thinkers (Ali, 2022).

## CONCLUSION



Higher education has undergone a significant pedagogical shift with the adoption of constructivist-based student-centered learning (SCL), in which lecturers act more as facilitators than as conventional knowledge creators. Through active engagement and practical application, this modification empowers students to take ownership of their education by fostering their independence, critical thinking, and problem-solving skills. As students work in groups to co-create knowledge and develop their interpersonal abilities, the benefits also extend to collaborative skills, preparing them for difficulties in the classroom and in the workplace. Research has shown that SCL regularly enhances learning results and student motivation when paired with structured assistance. Obstacles to implementing SCL include professors with a strong background in traditional pedagogy and students' readiness for self-directed learning. In order to adapt to greater autonomy, students usually need coaching, but lecturers may be reluctant because of institutional support gaps and effectiveness concerns. Lecturers must obtain focused professional development and foster open dialogue around the reciprocal advantages of SCL in order to overcome these obstacles. By addressing these challenges, SCL approaches are streamlined and educational practices align with the demands of a knowledge-driven, dynamic environment. Future research should look into how SCL approaches could be modified for certain situations via the teaching-learning process. Examining cultural perspectives on authority and education will provide more insight into how these factors affect the efficacy and acceptance of SCL procedures. Comparative studies and longitudinal study examining SCL's long-term impact on student results might assist in identifying the best adaptation strategies. Additionally, studies should evaluate how well different digital tools support student-centered learning, especially in environments where access to technology is restricted. When combined, these initiatives will result in a more organized and successful use of SCL, especially in Indonesian higher education.

## ACKNOWLEDGMENTS

This research could not have been completed without the assistance and support of various individuals and institutions. We would like to convey our deepest gratitude to the academic supervisor, whose ideas and support were essential during this process. We are also thankful to the students and lecturers who took part in this study for their time and willingness to share their insights. Thank you for your contributions.

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