



## Comprehensive Analysis of Various Student-Centered Learning (SCL) Approaches within the Domain of Bloom's Taxonomy

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### Abstract

*This study aims to comprehensively analyze various approaches to learning based on Student Centered Learning (SCL) and their relevance to the development of student potential in the educational context. This study applies a literature study method in analyzing various approaches to Student Centered Learning in terms of developing student potential. Research data were obtained from journal articles, books, and documents relevant to the research topic. In reviewing the findings, this study involved an analysis of constructivist, humanistic, and andragonic theories. The results show that the implementation of SCL can encourage active roles, independence, and self-identity of students in learning by creating a reflective, collaborative, and contextual learning environment. In addition, this approach also requires teacher pedagogical competence, institutional support, and adaptive educational policies. However, the student-centered learning approach faces several challenges in its implementation, such as differences in student conditions, the need for teacher preparation, limited learning facilities, and a minimal evaluation system. The implications of this study emphasize the need to review the evaluation or assessment system of learning to align with the principles of Student Centered Learning (SCL).*

**Keywords:** Student-Centered learning, learning approach, student's potential development, Bloom's taxonomy

## INTRODUCTION

The paradigm shift in learning from teacher-centered to student-centered approaches has reoriented education away from a mere focus on knowledge transfer toward the development of critical thinking, creativity, collaboration, and communication skills, which constitute core 21st-century competencies (Treve, 2024; Woods & Copur-Gencturk, 2024). This condition has driven a transformation in learning practices from the traditional teacher-centered model (Teacher Centered Learning) toward a student-centered model (Student Centered Learning). This paradigm shift has rendered the learning process more meaningful, participatory, and aligned with students' individual needs (Arif, 2021). This transformation has become increasingly relevant with the presence of national policy, particularly the implementation of the Merdeka Curriculum, which emphasizes independence, differentiation, and the strengthening of students' potential in accordance with their needs and contexts (Insani & Munandar, 2023; Sulaiman et al., 2024). The Merdeka Curriculum requires teachers to move beyond a single instructional method and instead master and integrate various learning approaches aligned with the principles of Student Centered Learning.

Theoretically, SCL is grounded in constructivist, humanistic, and andragogical foundations that position students as active subjects in constructing knowledge through interaction with their environment, learning experiences, and self-reflection (Romdhon et al., 2024). The implementation of SCL not only focuses on academic achievement but also contributes to character formation, the strengthening of independence, and the development of students' social skills. Within this framework, teachers act as facilitators tasked with creating a collaborative, creative learning ecosystem that is adaptive to students' needs (Morel, 2021). SCL is implemented through various learning approaches such as Project Learning, Problem Based Learning, Discovery Learning, Inquiry Based Learning, Collaborative Learning, and others (Yakubu et al., 2025). Each approach possesses distinct advantages and characteristics, allowing it to be selected and adapted according to learning objectives, student characteristics, and the context of the educational institution.

A number of prior studies have demonstrated the effectiveness of the Student Centered Learning (SCL) approach in developing students' potential. The findings of Chand (2023), confirm that Problem Based Learning significantly enhances students' critical thinking and problem-solving abilities. Meanwhile, Resdiantari (2025) confirms that Inquiry Based Learning encourages students to more actively construct conceptual understanding through processes of exploration and discovery. A similar study confirms that the application of Project Based Learning at the senior high school level effectively enhances both students' creativity and collaboration skills (Fidela & Fadilah, 2024). Furthermore, the findings of Cao (2023) reveal that the integration of blended learning with the SCL paradigm has a positive impact on students' motivation and learning independence in the digital era.

Although SCL conceptually provides a strong foundation for educational transformation, practices in the field reveal a dynamic reality far from ideal. Most

educators still operate within the old paradigm that positions students as passive objects (Shitarukmi et al., 2023). This is closely linked to systemic limitations in pedagogical capacity and the scarcity of reflective, practice-based training interventions. On the other hand, structural differences between urban and rural schools give rise to significant disparities, particularly in the availability of infrastructure supporting technology-based learning and access to digital resources. This imbalance became evident during the implementation of Blended Learning in the post-COVID-19 era, which negatively affected the quality of students' learning experiences (Febiola & Mufit, 2024).

Furthermore, a fundamental issue in the implementation of the SCL approach lies in teachers' limited ability to align learning approaches with the three main domains of Bloom's Taxonomy, namely cognitive, affective, and psychomotor. Some teachers still focus solely on cognitive achievement (mastery of knowledge), while the affective domain (motivation, attitudes, values) and the psychomotor domain (practical skills) have not received proportional attention. This condition indicates an urgent need to strengthen the implementation of SCL in fostering students' potential in a sustainable manner. Therefore, a comprehensive analysis of the various learning approaches within the framework of Student Centered Learning is needed to provide a complete picture of their advantages, limitations, and relevance to the context of education in Indonesia. This study not only strengthens the theoretical foundation of student-oriented education but also offers an analysis of the impacts and challenges of implementing SCL in improving the quality of learning across the three main aspects of Bloom's Taxonomy (cognitive, affective, and psychomotor).

## **METHOD**

This study employs a library research method. This approach was selected for its alignment with the research objective, namely to comprehensively analyze the various learning approaches within Student Centered Learning (SCL) and to examine their relevance to the development of students' potential. The data sources in this study were obtained from journals, books, research reports, and educational policy documents, including lesson plans and teaching modules relevant to the implementation of SCL. The data analysis technique employed in this study is the Miles and Huberman interactive model, which comprises three stages: data reduction, data display, and conclusion drawing and verification (Suciati et al., 2022). In the data reduction stage, data obtained from various sources were selected and focused on information relevant to the research. Subsequently, the data were presented in the form of narratives, tables, and matrices to facilitate interpretation. In the final stage, the researchers drew preliminary conclusions, which were then verified by comparing the data, theories, and findings of previous studies.

In order to analyze the research findings, this study also draws on several educational theories within the domain of learning, namely constructivist, humanistic, and andragogical theory. Constructivist theory explains that knowledge cannot be transferred directly from teacher to student, but is instead actively acquired by students

through experience, interaction, and reflection. Humanistic theory, meanwhile, focuses on the holistic development of human potential, encompassing the cognitive, affective, and psychomotor aspects. Andragogical theory, in turn, is a theory that focuses on adult education, guided by principles oriented toward learning independence. These three theories were used by the researchers to elaborate on the findings in greater depth, thereby yielding sharp and relevant generalizations regarding the research topic under study.

## **RESULTS AND DISCUSSION**

### **Research findings**

Student Centered Learning (SCL) is a learning approach that positions students at the center of learning activities, encouraging them to actively construct knowledge, develop skills, and derive meaning from their learning experiences. The SCL approach does not disregard direct instruction, but rather integrates it with active strategies such as project-based learning, problem solving, or inquiry learning so that students' activities become genuinely meaningful (Kerimbayev et al., 2023).

Several studies state that the distinctive characteristics of the SCL learning approach include: 1) active student participation in the learning process, 2) flexibility of the learning location, 3) a focus on the achievement of learning objectives, 4) primary responsibility for learning being held by the student, 5) operation within a cooperative, collaborative, and independent framework, and 6) the presence of internal competition to improve student performance relative to prior achievement (Awwaliyah & Fatimah, 2024). In line with this view, Anam, as cited in Salsabila (2024), explains that the distinctive features of the SCL learning approach are: 1) the teacher acts as a facilitator and motivator, 2) students must demonstrate creative performance that fully integrates cognitive, affective, and psychomotor abilities, 3) the learning process relies on inquiry and discovery learning methods, 4) the learning resources used are multidimensional and may be obtained from any source, and 5) the learning environment must be both structured and contextual.

Meanwhile, the SCL approach, grounded in constructivist, humanistic, and andragogical foundations, holds strong relevance when linked to 21st-century learning competencies, which highlight the 4Cs (critical thinking, creativity, collaboration, communication). SCL encourages students to think critically whereas students must be able to evaluate information, construct arguments, select strategies, and solve problems that do not always have a single correct answer. According to Musharyanti et al., (2021), the 4Cs serve as a primary foundation for future education so that graduates are prepared to face the uncertainties of the workforce. In line with this view, Irayana dan Assyauqi (2024), state that students' creativity can flourish when they are given the freedom to design projects, experiments, or alternative solutions using unlimited resources, rather than merely following fixed patterns. Collaboration is significantly manifested through group work, discussions among students, peer teaching, and joint projects, enabling students to learn from mutual influence and to draw on the diversity of thinking (Nasrulloh & Amal, 2024). Communication is honed through presentations, discussions, and oral and written reports, which require students to formulate their ideas clearly so that they can be understood by others. The following are the types of learning models within the Student Centered Learning approach:

### **1. Small Group Discussion**

Small Group Discussion (SGD) is a learning model that enables students to master a concept and solve problems within a group framework that facilitates social interaction, positive dialogue, and the collective expression of ideas by dividing a class into small groups to communicate, exchange opinions, and address a given topic (Andriani & Kalsum, 2025). Its implementation syntax generally consists of six steps: 1) dividing students into small groups, 2) presenting the problem or case to be discussed, 3) conducting exploration and discussion within the group, 4) guiding this process, 5) presenting the discussion results in a class forum, and 6) providing explanation, conclusions, and follow-up (Rohmani, 2024).

Through this syntax, students develop skills such as leadership, social responsibility, communication, motivation, and collaboration. Andriani dan Kalsum (2025) confirm that SGD effectively enhances student engagement, independence, motivation, and responsibility. Its relevance to SCL lies in its constructivist, student-centered principles: students actively construct knowledge through experience while the teacher serves as facilitator. Implementation, however, often faces unequal participation among group members and the challenge of balancing discussion freedom with keeping learning aligned to its objectives.

### **2. Self Directed Learning (SDL)**

Self Directed Learning (SDL), or independent learning, is a form of student activity in which students study a topic without the teacher's presence, actively controlling the process of discovering, organizing, and determining what is to be learned (Sarahono et al., 2024). Its objective is student independence, measurable through students' ability to manage their learning, exercise autonomy, and control their own process—distinct from guided independent study, in which the teacher still manages and provides materials (Anjani et al., 2025; Prasetyo et al., 2024).

Its syntax includes: 1) identifying students' needs and abilities, 2) implementing learning flexibly and situationally, 3) tutor monitoring of outcomes through completed tasks, and 4) evaluating the learning process (Sarahono et al., 2024). This gives students freedom over their learning style, pace, and interests, and develops their existing knowledge and skills. Ekosantoso et al., (2025), note that SDL leads students to self-regulate their learning from goal-setting through evaluation, fostering independence. SDL holds strong relevance to SCL through the andragogical paradigm, which emphasizes self-directed, goal-oriented learning grounded in experience. In practice, however, students still require teacher guidance and feedback, particularly for technical material. Anjani et al., 2025 states that SDL is best suited to small or individual learning settings, and its extended time demands can help shape students into lifelong learners.

### **3. Student Team Achievement Division (STAD)**

Student Team Achievement Division (STAD) is an approach in which the teacher's role includes presenting problems, posing issues, and facilitating investigation, creating an active, innovative, creative, and enjoyable learning experience (Slavin, as cited in Simanjuntak et al., 2025). Zaen & Sriyono (2025) consistent with findings from Wulan et al., (2024), who confirm that STAD-type cooperative learning significantly enhances critical thinking and learning motivation. Its core concept is fostering student motivation to support and help one another master the material taught.

Its syntax, as outlined by Rohmani (2024) and Wulandari (2022), comprises several steps, 1) conveying learning objectives and motivating students, 2) dividing students into heterogeneous groups (by achievement, ethnicity, and gender), 3) group-based learning activities, 4) evaluating outcomes through quizzes, and 5) awarding points or rewards to teams and individuals as appreciation. Although theoretically grounded in the SCL paradigm, STAD's implementation differs significantly from SDL. The teacher still dominates learning activities, leaving students without the full autonomy ideal to SCL, and its reward system can generate inter-group competition that potentially undermines genuine collaboration.

#### **4. Inquiry Learning and Discovery Learning**

Inquiry Learning is a model oriented toward scientific investigation, in which students actively discover knowledge through exploration, experimentation, data collection, and reflection, with the teacher facilitating rather than dominating the process (Pramana et al., 2024). Its stages—problem orientation, hypothesis formulation, data collection and analysis, hypothesis testing, and conclusion and reflection. The stages train critical, analytical, and logical thinking and an objective, reflective scientific attitude, while end-of-activity reflection strengthens metacognitive awareness and prepares students for complex, data-based problem solving.

Discovery Learning similarly emphasizes discovering concepts, principles, or rules through structured, problem-solving-oriented experience: students organize experiences, identify patterns, verify, and draw conclusions independently through the stages of stimulation, problem formulation, data collection and processing, verification, and generalization (Cahyaningtyas et al., 2023). Both models closely align with SCL in emphasizing independence, active involvement, and student responsibility; within the Merdeka Curriculum, they support the Pancasila Student Profile by fostering critical, creative, independent, and collaborative problem-solving in learning and everyday life.

#### **5. Collaborative Learning and Cooperative Learning**

Collaborative and cooperative approaches within SCL both help shift learning from knowledge transfer toward participatory knowledge construction, in line with the Merdeka Curriculum. Collaborative learning requires students to work together in teams to achieve learning objectives, enhancing interaction, deeper understanding, and collaborative skill through the syntax of identifying objectives, selecting context, forming groups, and disseminating results (Febriliati et al., 2024; Munfiatik, 2023).

Cooperative learning, a conceptual framework for group-based activities directed at predetermined objectives (Amalia et al., 2023). This is including types such as Jigsaw, Teams Games Tournament (TGT), and Numbered Heads Together (NHT)—follows the steps of conveying objectives and motivation, presenting material, forming heterogeneous groups, teacher guidance, evaluating outcomes, and rewarding groups or individuals. Lathifa et al., (2024) find cooperative learning effective in fostering social attitudes, independent thinking, achievement, responsibility, leadership, and mutual respect while reducing dependence on the teacher. Both approaches, however, share the drawback of requiring considerable implementation time and demanding careful teacher preparation and coordination, and discussions can expand beyond the intended topic and time allotted.

## **6. Project Based Learning (PjBL)**

Project Based Learning (PjBL) is a student-oriented strategy beginning with problem identification, through which students discover new knowledge and produce a project applying their learning (Damayanti et al., 2025). Explicitly can be rooted in SCL by positioning students as active agents who drive knowledge construction through direct involvement in planning, implementing, and evaluating projects. Its syntax involves: 1) receiving a problem relevant to current competencies, 2) searching for data and information to solve it, 3) analyzing and correlating data with the problem, and 4) analyzing problem-solving strategies, culminating in a solution framework structured as a project (Mulyasa, as cited in Damayanti et al., 2025).

This process develops students' potential through learning autonomy in choosing project themes and making decisions, active, collaborative learning through negotiation and shared responsibility, contextualization through connection to authentic social, economic, cultural, or environmental phenomena, and critical reflection on process, obstacles, and future improvement.

## **7. Problem Based Learning (PBL)**

Problem Based Learning (PBL) closely aligns with SCL by positioning students at the center of learning through real, complex, contextual problems to be analyzed and solved independently or collectively (Fonna & Nufus, 2024). Serving as a strategic instrument for developing critical thinking, problem-solving, decision-making, and collaboration. It is theoretically supported by Piaget, Vygotsky, and Bruner (as cited in Janah and Haryono (2025), who hold that students understand material through direct engagement with a problem until a solution is found.

Its syntax comprises: 1) orientation to the problem, 2) organizing students by learning needs, 3) investigating solutions, 4) translating findings into a tangible output, and 5) reflecting on outcomes (Wardani, as cited in Janah and Haryono (2025)—training students in critical and creative problem-solving through active classroom engagement Ratnasari et al., (2022). This positions the teacher predominantly as observer and facilitator, while students remain the dominant party in organizing learning, investigating solutions, and producing outputs.

## **Discussion**

The Student Centered Learning (SCL) paradigm represents a fundamental shift from traditional, teacher-centered learning toward learning that positions students as the primary subjects of the educational process. Within this paradigm, students are not viewed as passive recipients of information, but as individuals who play an active role in constructing knowledge through experience, interaction, and reflection (Ograjšek & Grmek, 2024). SCL also functions as a medium for the holistic development of students' potential across the cognitive, affective, and psychomotor domains. Through interactive, contextual, and participatory learning strategies, SCL seeks to make learning a meaningful and relevant experience oriented toward students' needs and capacities.

The theoretical foundation of Student Centered Learning (SCL) is firmly rooted in three major paradigms in education, namely constructivism, humanism, and andragogy. As explained in constructivist theory, understanding or knowledge can be acquired through students' active participation—exploration, collaboration, and contextual problem solving—in learning activities (Salsabila & Muqowim, 2024). Furthermore, in

line with humanistic principles, SCL is able to create a learning climate that fosters empathy, respects freedom, and takes students' needs into consideration (Treve, 2024). Another aspect underpinning the implementation of this approach is the aspect of learning independence explained in andragogical theory. To facilitate the identification of SCL implementation, the following table presents an overview:

Table 1. Implementation Student Centered Learning (SCL)

| Aspect         | Implementation of SCL within the Domain of Bloom's Taxonomy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | Cognitive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Affective                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cognitive                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Constructivist | Students independently explore concepts and construct meaning through their own learning experiences. In line with the concept of the <i>zone of proximal development</i> , discussion and problem-solving activities serve as a vehicle for knowledge formation, in which interaction among peers and with the teacher has the potential to facilitate cognitive development. Meanwhile, reflective activities serve to strengthen students' metacognitive skills in assessing and improving their thinking processes in order to achieve deeper understanding. | Through collaborative activities, group discussions, and problem-based projects, students can develop communication skills, empathy, and teamwork. In addition, learning processes that foster individual and group responsibility are effective in reinforcing moral and social values. Meanwhile, reflection activities at the end of each SCL stage can help students understand the impact of their actions and attitudes toward others. | In line with the concept of <i>learning by doing</i> , meaningful learning can be formed when the learning process applied provides students with the opportunity to construct understanding through direct experience involving physical and mental actions (experimentation and simulation). Through these activities, students not only understand theory conceptually but also realize its practical role, thereby strengthening their applied skills and thinking abilities. |
| Humanistic     | Through contextual learning activities, such as interest-based projects, case studies, or experiential learning, students can build self-awareness and connect knowledge with personal values. Thus, students are directed not only toward rational conceptual understanding but also toward developing reflective thinking skills that require them to recognize their thinking styles, strengths, and weaknesses in the learning process.                                                                                                                      | Through learning activities designed to be collaborative, reflective, and experience-based, students are encouraged to explore their sense of self-worth and develop confidence in their own abilities. Meanwhile, relevant learning experiences and the granting of learning autonomy to students can strengthen intrinsic motivation, as students feel a sense of control over the process and outcomes of the learning they are pursuing. | The freedom given to students to experiment, such as through project activities, hands-on practice, and simulations aligned with their interests, fosters a sense of responsibility and develops their potential. In addition, teachers acting as facilitators are obligated to provide support, feedback, and reflection so that students' experiences can become a means of high-quality self-development.                                                                      |
| Andragogical   | Project-based, inquiry-based, and case-study learning activities enable students to integrate theory with practice,                                                                                                                                                                                                                                                                                                                                                                                                                                              | Students' active involvement in the process of planning through evaluating learning can foster a                                                                                                                                                                                                                                                                                                                                             | In line with the concept of <i>experiential learning</i> , providing real-world challenges such as project creation, simulations, and                                                                                                                                                                                                                                                                                                                                             |

|                                                                                                     |                              |                                                                                                                           |                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| developing thinking, thinking, and solving skills grounded in learning experience and independence. | critical reflective problem- | sense of responsibility, independence, commitment, and self-awareness for continuous, self-development-oriented learning. | other psychomotor skill activities is effective in enhancing the relevance and retention of student learning, as well as improving students' skills within the context of everyday life. |
|-----------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Based on the table above, it can be seen that, comprehensively, the implementation of SCL in learning has the potential to exert a substantial impact on students by contributing multidimensionally to the three main domains of Bloom's Taxonomy. At the ideal level, the Student Centered Learning (SCL) approach is believed to be capable of creating holistic learning by integrating affective values with practical skills. This is in line with the findings of Wijnia et al., (2024), who state that PBL, PjBL, and CBL models demonstrate a significant positive effect in enhancing students' learning motivation compared to teacher-centered learning. Another view reinforces that the implementation of the Student Centered Learning (SCL) approach not only enhances learning motivation but also improves students' cognitive outcomes (Salsabila & Muqowim, 2024). Similarly, in the psychomotor aspect, Maknun et al., (2024), in a classroom action research study on science learning, found that by the third cycle of implementing an SCL-based cooperative learning model of the make-a-match type, all students demonstrated a good level of psychomotor competence.

Nevertheless, certain contradictions pose challenges to this ideal assumption regarding the implementation of SCL. First, there are differences in the cognitive, affective, and psychomotor levels possessed by students. Many students are not yet accustomed to independent and critical learning patterns, as prior learning culture has tended to place greater emphasis on memorization and the reproduction of knowledge (Wulan et al., 2024). Another problem experienced by students concerns the affective aspect: students' learning orientation remains dominated by the pursuit of grades and standard praise, causing some students to treat learning merely as an obligation rather than as a meaningful learning experience (Salsabila & Muqowim, 2024). Furthermore, problems experienced by students in the psychomotor domain include low levels of collaborative skills, initiative, and digital literacy (Budi et al., 2025). Rather than producing productive teamwork, group dynamics sometimes instead become trapped in the dominance of certain individuals or in unresolved conflict.

Second, teacher readiness remains a crucial issue in the implementation of Student Centered Learning (SCL). One important aspect in optimizing this model is teachers' ability to transform from their traditional role into that of a learning facilitator. In practice, however, many educators are still not fully prepared to make this transition. This condition often causes SCL-based learning practices, such as Problem Based Learning (PBL), to become merely a formality. Other problems, such as difficulty in designing authentic, contextual, and challenging topics, also present a distinct challenge for educators (Chand, 2023). In addition, a hierarchical culture that positions the teacher as the primary authority has a significant impact on students' willingness to participate actively or provide feedback during learning activities.

Third, there are limitations in facilities and school support, particularly in low-resource schools (Nurassyl et al., 2023). Such problems are still commonly found in a number of schools, resulting in the suboptimal implementation of the SCL approach.

Nevertheless, these limitations do not always constitute an absolute obstacle. In some cases, teachers and students are able to creatively utilize local resources to create meaningful and contextual learning experiences. This is in line with the concept of resource-based learning, which holds that the meaningfulness of learning is not always determined by the completeness of facilities, but rather by the ability to optimize the resources that are available (Alkaraan et al., 2024). For example, in rural schools, teachers can integrate local potential, such as traditional craft-making or agricultural product processing, into project-based learning as a creative alternative.

Fourth, there are limitations in the evaluation or assessment system. A common problem found in many schools is that assessment tends to focus primarily on final outcomes and cognitive achievement measured through written tests. Meanwhile, the affective and psychomotor aspects are, in practice, often neglected (Hazyimara et al., 2024). This condition creates a gap between the SCL paradigm, which emphasizes independence, active engagement, and experience, and evaluation practices that remain centered on final outcomes. As a result, the affective and psychomotor dimensions of students—which should be able to develop through collaborative activities and contextual projects—cannot be comprehensively measured. Nevertheless, it is not uncommon to find teachers implementing various forms of authentic assessment, such as portfolios, self-reflection, and peer assessment, to measure the development of students' potential. Thus, although the evaluation system remains an obstacle in the implementation of SCL, teachers' creativity in developing assessment instruments can be key.

This phenomenon indicates that, although SCL in its implementation emphasizes students' independence and experience, the effectiveness of its application is closely tied to students' conditions, teacher readiness, facilities and institutional conditions, time, and the evaluation system employed. If all these aspects work synergistically—with teachers acting as facilitators and schools supporting adequate resources and an adaptive evaluation system—the SCL approach has the potential to become a catalyst for applicable and meaningful learning. Therefore, the findings of this study carry important implications for the educational paradigm, particularly with respect to the learning evaluation system.

Through the Student Centered Learning (SCL) approach, assessment no longer focuses solely on final outcomes or cognitive achievement, but also evaluates students' process, participation, and reflective ability during learning. This implication requires teachers to be able to develop authentic assessment instruments capable of supporting students' comprehensive development. In addition, the research findings also confirm that the implementation of SCL can have a positive impact on students' individual potential. Students who are given autonomy to explore knowledge in accordance with their interests and learning styles tend to exhibit greater independence, self-confidence, and responsibility compared to students who lack such learning freedom. Thus, SCL is not merely an innovative learning approach but also serves as a foundation for character formation and a vehicle for developing students' potential.

## CONCLUSION

Based on the research findings and discussion presented above, this study demonstrates that the Student Centered Learning (SCL) approach exerts a significant influence on the development of Bloom's Taxonomy domains in students. The SCL-based learning models capable of exerting this influence include: 1) Small Group Discussion

(SGD), 2) Self Directed Learning (SDL), 3) Student Team Achievement Division (STAD), 4) Inquiry Learning and Discovery Learning, 5) Collaborative Learning and Cooperative Learning, 6) Project Based Learning (PjBL), and 7) Problem Based Learning (PBL). These seven learning models contribute to fostering the cognitive, affective, and psychomotor aspects of students when implemented in learning activities.

Nevertheless, the SCL approach faces several challenges in achieving ideal implementation, including: 1) differences in the cognitive, affective, and psychomotor levels of individual students, 2) teacher readiness in implementing SCL, 3) limitations in facilities and school support, and 4) limitations in the evaluation (assessment) system. This implies that the SCL approach must continue to be accompanied by adjustments relevant to the actual conditions in the field (in this case, the learning environment or school). Therefore, future research is recommended to elaborate on creative and solution-oriented ideas for addressing the challenges present in the SCL approach, so that the issues that arise can be resolved.

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