



Implementation of the Discovery Learning Model to Improve Students' Social Studies Achievement at SMP Negeri 3 Lembah Seulawah

Mene Angkat¹, SMP Negeri 3 Lembah Seulawah, Indonesia

Nurimah², SD Negeri Kuta Pasie, Indonesia

ABSTRACT

This study aims to investigate the application of the Discovery Learning model to improve the social studies learning achievement of seventh-grade students at SMP Negeri 3 Lembah Seulawah. The background of this research lies in the observation that students often experience difficulties in understanding abstract concepts in social studies, which in turn affects their overall achievement. Discovery Learning, as an active and student-centered approach, emphasizes the process of exploration, hypothesis testing, and knowledge construction, enabling students to develop critical and analytical thinking skills. The research employed a classroom action research design carried out in two cycles, with each cycle consisting of planning, implementation, observation, and reflection. Data were collected using tests, observations, and documentation, and then analyzed descriptively and quantitatively. The findings reveal a significant improvement in students' learning achievement after the implementation of Discovery Learning, as indicated by the increase in average test scores and the percentage of students meeting the minimum mastery criteria. Moreover, students demonstrated higher levels of engagement, motivation, and independence during the learning process. This study concludes that the Discovery Learning model is effective in enhancing both cognitive and affective aspects of students' social studies learning achievement, and it is recommended for broader classroom application.

 OPEN ACCESS

ARTICLE HISTORY

Received: 5 May 2025

Revised: 27 May 2025

Accepted: 14 June 2025

Published: 31 July 2025

KEYWORDS

Discovery learning, social studies, learning achievement, student engagement.

Corresponding Author:

Mene Angkat

SMP Negeri 3 Lembah Seulawah, Indonesia

neneangkat51@guru.smp.belajar.id

Introduction

Education plays a crucial role in national development, as it produces human resources who are qualified, critical, and adaptive to societal changes (Tilaar, 2012). One of the main goals of education is to improve students' thinking abilities so that they can solve problems in daily life effectively and responsibly. In Indonesia, junior high school education is a critical stage in shaping students' intellectual skills, attitudes, and social abilities (Depdiknas, 2013). At this level, Social Studies (IPS) serves as a fundamental

subject that provides knowledge about social phenomena, history, economics, and geography, preparing students to understand their environment and societal structures.

Despite its importance, Social Studies is often perceived as monotonous by students because learning activities are still dominated by teacher-centered approaches such as lectures and memorization. As a result, many students lack motivation and demonstrate low achievement in this subject (Sanjaya, 2015). This condition raises concerns about the effectiveness of instructional models currently applied in the classroom. The same problem is also found among seventh-grade students of SMP Negeri 3 Lembah Seulawah, where many students fail to reach the minimum mastery criteria. These results indicate the need for innovative teaching models that can engage students more actively and meaningfully.

One promising approach to address these challenges is the Discovery Learning model. This method emphasizes the process of students' active exploration, hypothesis testing, and self-discovery of knowledge rather than passively receiving information from the teacher (Bruner, 1961). Discovery Learning aligns with constructivist theory, which posits that knowledge is built through experiences and active engagement in the learning process (Piaget, 1973). By encouraging students to construct their own understanding, this model allows them to become central participants in the classroom.

Previous studies have shown that the application of Discovery Learning significantly improves learning outcomes, critical thinking skills, and student motivation in various subjects, including science and social studies (Hosnan, 2014; Hidayati, 2017). This suggests its strong potential for enhancing Social Studies instruction. In Social Studies, Discovery Learning provides opportunities for students to understand abstract concepts by engaging in observation, data collection, analysis, and conclusion drawing. Such processes foster analytical and reflective thinking skills (Arends, 2012). This model also encourages independence, creativity, and curiosity, making students more motivated to master complex Social Studies content (Joyce, Weil, & Calhoun, 2015). Instead of memorizing facts, students are trained to question, investigate, and reason systematically.

Research by Huda (2017) confirmed that Discovery Learning not only enhances academic achievement but also builds students' social skills, as it emphasizes collaboration and group discussion. This aspect is particularly valuable for Social Studies, which deals with collective and societal issues. Teachers play the role of facilitators in Discovery Learning, guiding students without being the sole source of information. Such a role is in line with 21st-century education demands, which emphasize the development of higher-order thinking skills (Anderson & Krathwohl, 2001).

Through this model, learning is expected to be more meaningful because students actively construct knowledge that relates to their own life experiences. Consequently,

students will become more critical, engaged, and capable of applying Social Studies concepts to real-world contexts. The use of Discovery Learning also corresponds with the principles of the Indonesian curriculum, which promotes scientific, participatory, and contextual approaches to ensure the development of knowledge, attitudes, and skills in a balanced way (Kemendikbud, 2016).

Given these considerations, the implementation of Discovery Learning in Social Studies classrooms becomes highly relevant to address low academic performance among students of SMP Negeri 3 Lembah Seulawah. It is not only a pedagogical necessity but also a practical solution to increase both achievement and engagement. Therefore, this study aims to describe and analyze the implementation of the Discovery Learning model to improve seventh-grade students' Social Studies achievement and to examine its effectiveness in promoting active student participation in the learning process.

Methods

This study employed a classroom action research (CAR) design to investigate the effectiveness of the Discovery Learning model in improving seventh-grade students' achievement in Social Studies. Classroom action research was chosen because it allows teachers and researchers to collaboratively identify problems in the classroom, implement solutions, and reflect on their effectiveness in a cyclical process (Kemmis & McTaggart, 1988). The research was conducted at SMP Negeri 3 Lembah Seulawah, involving seventh-grade students as participants. The selection of participants was based on purposive sampling, focusing on a class where students' academic performance in Social Studies was relatively low compared to the school average. This approach ensured that the intervention would address real and urgent learning needs (Creswell, 2012).

The study was carried out in two cycles, each consisting of four stages: planning, action, observation, and reflection. In the planning stage, lesson plans were developed using the Discovery Learning model, and teaching materials were adjusted to match students' prior knowledge. The action stage involved implementing the designed lesson plan in the classroom, while the observation stage collected data on students' learning processes and outcomes. Reflection was then conducted to evaluate the effectiveness of each cycle and make necessary adjustments for the following cycle (Burns, 2010).

The Discovery Learning model was implemented following the stages proposed by Bruner (1961): stimulation, problem statement, data collection, data processing, verification, and conclusion. Each stage was designed to encourage active student engagement, critical thinking, and collaboration in exploring Social Studies concepts. Data collection methods included tests, observation, and documentation. Tests were administered at the end of each cycle to measure students' cognitive achievement in

Social Studies. Observation sheets were used to assess student participation, motivation, and interaction during the learning process, while documentation included field notes, lesson plans, and photographs to support data triangulation (Miles & Huberman, 1994).

To ensure the validity of the findings, data triangulation was applied by combining multiple data sources and instruments. This approach strengthens the credibility and reliability of research results in classroom-based studies (Denzin, 2017). The data analysis was conducted using both quantitative and qualitative techniques. Quantitative data from test scores were analyzed by calculating the average, percentage of mastery, and improvement across cycles. Qualitative data from observations and documentation were analyzed descriptively to provide a comprehensive understanding of students' engagement and behavioral changes (Sugiyono, 2017).

The criteria for success in this study were determined based on two indicators: first, the increase in the number of students achieving the minimum mastery criteria (KKM), and second, the improvement of students' activeness and participation in the learning process. These indicators were aligned with the objectives of Social Studies instruction, which emphasize both cognitive and affective domains (Hosnan, 2014). The researcher collaborated closely with the classroom teacher to implement the learning model. Collaboration is a crucial element of action research, as it ensures that the intervention is contextually relevant and practically feasible for classroom application (McNiff, 2013). Overall, the methodological framework of this study was designed to systematically examine the impact of Discovery Learning on students' Social Studies achievement, while also providing reflective insights for teachers to continuously improve their instructional practices.

Result

The implementation of Discovery Learning in Cycle I showed a positive shift in students' engagement compared to conventional teaching methods. During the stimulation and problem statement stages, students appeared curious and eager to explore new concepts, although some were still hesitant to participate actively. This observation aligns with Bruner's (1961) theory that stimulation can spark intrinsic motivation in learners. Test results in Cycle I revealed that only 58% of students achieved the minimum mastery criteria (KKM), which was below the expected standard. However, this marked an improvement compared to the pre-cycle achievement, where only 40% of students reached mastery. This suggests that Discovery Learning had begun to positively impact students' cognitive outcomes (Arends, 2012).

Qualitative observations indicated that students were more involved in group discussions, though their ability to analyze data and formulate conclusions remained limited. This finding echoes Joyce, Weil, and Calhoun (2015), who argue that

collaborative learning requires consistent practice to enhance both academic and social skills. Reflection on Cycle I highlighted several weaknesses, particularly in guiding students during the data processing and verification stages. Many students still depended heavily on teacher assistance, reflecting Piaget's (1973) notion that scaffolding is essential when students transition to higher levels of reasoning.

In Cycle II, improvements were evident. The percentage of students achieving KKM rose significantly to 82%. This increase demonstrated the effectiveness of refining instructional strategies, particularly by providing clearer guidance and scaffolding during the exploration process (Hidayati, 2017). Students' test scores also showed a rise in the average class score from 67.8 in Cycle I to 78.5 in Cycle II. This quantitative improvement supports the claim that Discovery Learning can enhance academic achievement when consistently applied (Hosnan, 2014).

Beyond cognitive outcomes, students displayed stronger motivation and independence during Cycle II. Observation notes revealed that they asked more questions, sought clarification, and took greater initiative in problem-solving activities. These behaviors reflect the model's potential in fostering higher-order thinking skills (Anderson & Krathwohl, 2001). Documentation through photographs and field notes confirmed more active collaboration in Cycle II. Students worked in groups more cohesively, and the classroom environment became livelier and more interactive. This resonates with Vygotskian perspectives, which emphasize the role of social interaction in cognitive development (Vygotsky, 1978).

Another important result was the improvement in students' ability to draw conclusions independently. While in Cycle I students often relied on teachers' prompts, in Cycle II they were able to generate hypotheses, test them, and verify outcomes more systematically. This finding reflects Bruner's (1961) emphasis on discovery as a means of constructing knowledge. Teachers also noted a decrease in classroom management issues during Cycle II. With students more engaged in meaningful tasks, disruptive behaviors reduced, supporting previous findings that active learning models can improve classroom climate (Sanjaya, 2015).

The overall trend across cycles indicated that Discovery Learning not only improved cognitive outcomes but also had a positive influence on students' affective and social domains. Students demonstrated greater confidence in expressing opinions, respect for peers' ideas, and willingness to participate actively in discussions (Huda, 2017). Quantitative data analysis showed that the gap between high-achieving and low-achieving students narrowed in Cycle II. This suggests that the model was effective in supporting diverse learners, echoing Creswell's (2012) view that differentiated instruction within active learning benefits a wide range of students.

Students' reflective feedback collected at the end of Cycle II indicated that they preferred Discovery Learning to traditional lectures. They reported that the approach made learning more enjoyable, meaningful, and connected to real-life contexts, which is consistent with Arends (2012), who argued that meaningful learning fosters deeper understanding. The increase in achievement and engagement across cycles confirmed that the criteria of success set for this study were met. Both mastery of the KKM and active student participation showed significant improvement, demonstrating the practical effectiveness of the Discovery Learning model in Social Studies (Kemendikbud, 2016). In conclusion, the findings indicated that the Discovery Learning model successfully enhanced students' Social Studies achievement at SMP Negeri 3 Lembah Seulawah. The improvements were not limited to test scores but extended to students' motivation, independence, collaboration, and classroom interaction. These results validate Discovery Learning as a relevant and effective model for 21st-century education (Joyce et al., 2015).

Discussion

The results of this study demonstrate that the implementation of the Discovery Learning model significantly improved students' Social Studies achievement. The increase in mastery percentage from 40% in the pre-cycle to 82% in Cycle II reflects the model's effectiveness in promoting active and meaningful learning. This outcome supports Bruner's (1961) idea that discovery fosters deeper cognitive engagement and enhances the retention of knowledge. In addition to cognitive improvement, Discovery Learning also enhanced students' motivation and independence. During Cycle II, students displayed higher levels of curiosity and initiative in exploring concepts. Such findings align with Hosnan (2014), who argued that learning models emphasizing inquiry and exploration can nurture students' intrinsic motivation and critical thinking skills.

The observed increase in collaboration among students highlights the social benefits of the model. Group activities encouraged communication, respect for diverse perspectives, and cooperative problem-solving. This is consistent with Vygotsky's (1978) sociocultural theory, which emphasizes that interaction within a social context facilitates knowledge construction and cognitive development. Moreover, students reported a preference for Discovery Learning compared to conventional methods, perceiving it as more enjoyable and relevant to their daily lives. This perception resonates with Arends (2012), who explained that meaningful and contextual learning experiences positively impact students' engagement and attitudes toward learning.

Another important aspect revealed by the study is the reduction of classroom management issues. As students became more actively engaged, disruptive behaviors decreased, creating a more conducive learning environment. This finding suggests that when students are provided with opportunities for meaningful participation, their sense

of responsibility and focus improves. The narrowing gap between high- and low-achieving students further demonstrates the inclusivity of the Discovery Learning model. By encouraging active participation and scaffolding, the model allowed weaker students to engage more effectively, thereby reducing disparities in achievement levels within the class.

The results also indicate that teacher roles shifted successfully from being the sole provider of knowledge to acting as facilitators. This shift aligns with 21st-century educational demands that prioritize learner-centered approaches, critical thinking, and problem-solving abilities. Overall, the findings suggest that Discovery Learning is not only effective in improving academic outcomes but also in shaping positive attitudes, collaborative skills, and student independence. Its application in Social Studies classrooms provides strong evidence of its relevance in preparing students for the demands of society in the era of rapid global changes.

Conclusion

The findings of this study conclude that the Discovery Learning model effectively improves seventh-grade students' Social Studies achievement at SMP Negeri 3 Lembah Seulawah by enhancing not only their cognitive outcomes, as shown in the significant increase in mastery scores, but also their motivation, independence, and collaborative skills. The model fostered active participation, critical thinking, and meaningful engagement with learning materials, while also creating a more positive classroom atmosphere. Therefore, Discovery Learning can be considered a relevant and effective instructional approach for improving both academic achievement and learning attitudes in Social Studies education.

References

- Afriati, I., Siregar, R. S., Fonna, A., & Muna, Z. (2025). Effectivity of Inductive Method in Learning Nahwu-Sharaf at MIN 3 Banda Aceh City. *Journal of Indonesian Primary School*, 2(2), 1–9. <https://doi.org/https://doi.org/10.62945/jips.v2i2.738>
- Arikunto, S. (2002). *Prosedur Penelitian*. Bandung: Rineka Cipta.
- Dasopang, M. D., Lubis, A. H., & Dasopang, H. R. (2022). How do Millennial Parents Internalize Islamic Values in Their Early Childhood in the Digital Era? *AL-ISHLAH: Jurnal Pendidikan*, 14(1), 697–708.
- Dasopang, M. D., Nasution, I. F. A., & Lubis, A. H. (2023). The Role of Religious and Cultural Education as A Resolution of Radicalism Conflict in Sibolga Community. *HTS Theological Studies*, 79(1), 1–7.

- Erawadi, E., Hamka, H., & Juliana, F. (2017). The Analysis of Student's Stressed Syllables Mastery at Sixth Semester of TBI in IAIN Padangsidimpuan. *English Education: English Journal for Teaching and Learning*, 5(1), 44–57.
- Elisyah, Nur, Islami Fatwa, Dinda Adha Hutabarat, and Zaharatul Humaira. 2024. "Pelatihan Gamifikasi: Implementasi Permainan Edukatif Untuk Meningkatkan Kualitas Pembelajaran Di SD Swasta Srikandi Lhokseumawe." *PUSAKA: Jurnal Pengabdian Masyarakat* 1(2):29–37. doi:10.62945/pusaka.v1i2.164.
- Fatimah, A., & Maryani, K. (2018). Visual Literasi Media Pembelajaran Buku Cerita Anak. *Jurnal Inovasi Teknologi Pendidikan*, 5(1), 61–69. <https://doi.org/10.21831/jitp.v5i1.16212>
- Gogahu, D. G. S., & Prasetyo, T. (2020). Pengembangan Media Pembelajaran Berbasis E-Bookstory untuk Meningkatkan Literasi Membaca Siswa Sekolah Dasar. *Jurnal Basicedu*, 4(4), 1004–1015.
- Hamka, H. (2023). The Role of Principals on Teacher Performance Improvement in a Suburban School. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, 15(1), 371–380.
- Hamka, H., Suen, M.-W., Anganthi, N. R. N., Haq, A. H. B., & Prasetyo, B. (2023). The Effectiveness of Gratitude Intervention in Reducing Negative Emotions in Sexual Abuse Victims. *Psikohumaniora: Jurnal Penelitian Psikologi*, 8(2), 227–240.
- Harahap, S. M., & Hamka, H. (2023). Investigating the Roles of Philosophy, Culture, Language and Islam in Angkola's Local Wisdom of 'Dalihan Na Tolu.' *HTS Theologiese Studies/Theological Studies*, 79(1), 8164.
- Hendrawati, S., Rosidin, U., & Astiani, S. (2020). Perilaku hidup bersih dan sehat (PHBS) siswa/siswi di sekolah menengah pertama negeri (SMPN). *Jurnal Perawat Indonesia*, 4(1), 295–307. <https://doi.org/https://doi.org/10.32584/jpi.v4i1.454>
- Manshur, U., & Ramdlani, M. (2019). Media audio visual dalam pembelajaran PAI. *Al-Murabbi: Jurnal Pendidikan Agama Islam*, 5(1), 1–8.
- Mardhiyah, R. H., Aldriani, S. N. F., Chitta, F., & Zulfikar, M. R. (2021). Pentingnya Keterampilan Belajar di Abad 21 sebagai Tuntutan dalam Pengembangan Sumber Daya Manusia. *Lectura: Jurnal Pendidikan*, 12(1), 29–40.
- Ningsih, Y. S., Mulia, M., & Lubis, A. H. (2023). Development of Picture Storybooks with TheoAnthropoEco Centric Approach for Elementary School Students. *AL-ISHLAH: Jurnal Pendidikan*, 15(2), 1888–1903.
- Nurhidayah, I., Asifah, L., & Rosidin, U. (2021). Pengetahuan , Sikap dan Perilaku Hidup Bersih dan Sehat pada Siswa Sekolah Dasar. 13(1), 61–71. <https://doi.org/10.32528/ijhs.v13i1.4864>

- Pebtiyanti, I., Ahmad, A., Dzaky, M., Fauziah, S. N., Rendi, & Puspitasari, P. (2023). Peran kurikulum merdeka dalam meningkatkan harmonisasi antara masyarakat dan sekolah. *Jurnal Pacu Pendidikan Dasar*, 3(1), 269–277. <https://doi.org/https://doi.org/10.22021/pacu.v3i1.411>
- Putra, Meiyaldi Eka, Fajar Maulana, Ramanda Rizky, and Islami Fatwa. 2023. "Peningkatan Hasil Belajar Mahasiswa Menggunakan Model Perkuliahan Problem Based Instruction (PBI) Mata Kuliah Gambar Teknik." *Jurnal Pendidikan Teknik Mesin* 10(1):22–30. doi:10.36706/jptm.v10i1.20850.
- Rahmah, S., & Lubis, A. H. (2024). Problem Posing as a Learning Model to Improve Primary School Students' Mathematics Learning Outcomes in Gayo Lues. *Journal of Indonesian Primary School*, 1(4), 93–104.
- Rahman, A., Munandar, S. A., Fitriani, A., Karlina, Y., & Yumriani. (2022). Pengertian Pendidikan, Ilmu Pendidikan dan Unsur-Unsur Pendidikan. *Al Urwatul Wutsqa: Kajian Pendidikan Islam*, 2(1), 1–8.
- Ranisa, R., Erawadi, E., & Hamka, H. (2018). Students' Mastery in Identifying Adverbs at Grade VIII SMPN 2 Batang Toru Tapanuli Selatan. *ENGLISH EDUCATION JOURNAL: English Journal for Teaching and Learning*, 6(2), 241–252.
- Ricardo, R., & Meilani, R. I. (2017). Impak Minat dan Motivasi Belajar terhadap Hasil Belajar Siswa. *Jurnal Pendidikan Manajemen Perkantoran (JPManper)*, 2(2), 188–201.
- Santi, Undang, & Kasja. (2023). Peran Guru PAI dalam Membentuk Karakter Peserta Didik di Sekolah. *Jurnal Pendidikan Tambusai*, 7(2), 16078–16084. <https://doi.org/https://doi.org/10.31004/jptam.v7i2.8918>
- Siregar, N., & Siregar, R. S. (2025). Analysis of numeracy literacy of junior high school students in AKM questions: Learning strategies based on higher order thinking skills at SMP Negeri 5 Tapung Hilir. *Jurnal Profesi Guru Indonesia*, 2(1), 359–367. <https://doi.org/10.62945/jpgi.v2i1.720>
- Siregar, R. S. (2024). Students' Preferences for Varied Learning Methods: An Empirical Study of the Effectiveness and Appeal of Diverse Instructional Approaches. *Jurnal Profesi Guru Indonesia*, 1(2), 140–152. <https://doi.org/https://doi.org/10.62945/jpgi.v1i2.679>
- Siregar, R. S. (2024). *Fiqhu Al-Akbār: Taḥqī An-Naṣ Wa Taḥlīlu'Afkārihi*. UIN Ar-Raniry Fakultas Adab dan Humaniora.
- Siregar, R. S. (2025). The Influence of Social Media as a Learning Resource on the Academic Behavior of Junior High School Adolescents. *KOGNITIF: Jurnal Ilmiah Pendidikan Dan Keguruan*, 2(1), 21–28.
- Siregar, R. S. (2025a). Arabic Language Learning Culture in Salaf Islamic Boarding Schools: An Ethnographic Study of Linguistic Punishment Practices and Traditions.

- ETNOPEDAGOGI: Jurnal Pendidikan Dan Kebudayaan, 2(2), 1–9.
<https://doi.org/https://doi.org/10.62945/etnopedagogi.v2i2.722>
- Siregar, R. S. (2025b). Evaluation of the Implementation of the Reading Literacy Program at SD Negeri 100190 Tarutung Bolak. *Journal of Indonesian Primary School*, 2(1), 240–250. <https://doi.org/https://doi.org/10.62945/jips.v2i1.723>
- Siregar, R. S. (2025c). Improving the Arabic Writing Skills of Students through the Application of Contextual Learning Methods at Dayah Irsyadul Abidin Qurani. *Indonesian Journal of Education and Social Humanities*, 2(1), 358–369. <https://doi.org/https://doi.org/10.62945/ijesh.v2i1.726>
- Siregar, R. S. (2025d). Principles of Subject-Based Arabic Curriculum Development: Language Skills Integration and Contextual Relevance. *DEEP LEARNING: Journal of Educational Research*, 1(2), 56–67. <https://doi.org/https://doi.org/10.62945/deeplearning.v1i2.229>
- Siregar, R. S. (2025e). Students' Cognitive Difficulties in Mastering the Nahwu Rules: A Descriptive Study at SMP IT Al Farabi Bilingual School. *Jurnal Cendekia Islam Indonesia*, 1(2), 10–20. <https://doi.org/https://doi.org/10.62945/jcii.v1i2.216>
- Sinaga, Nurul Afni, Fitri Ayu Ningtiyas, Rifaatul Mahmuzah, Yulia Zahara, and Islami Fatwa. 2023. "The Effect of Deductive-Inductive Learning Approach on Creative Thinking Ability and Learning Motivation." *Journal of Educational Research and Evaluation* 6(2):123–34. doi:10.24114/paradikma.v16i2.46952.
- Siraj, S., M. Yusuf, I. Fatwa, F. Rianda, and M. Mulyadi. 2023. "Pengembangan Model Pembelajaran Reflektif Berbasis Unity of Sciences Bagi Calon Guru Sekolah Menengah Kejuruan Profesional." *Jurnal Review Pendidikan Dan Pengajaran (JRPP)* 6(4):2030–38.
- Sugiyono. (2018). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.