

PROFILE OF LEADING TEACHER IN IMPLEMENTING DISCOVERY LEARNING MODEL TO IMPROVE CRITICAL THINKING SKILLS IN GRADE V ELEMENTARY SCHOOL STUDENTS

Rose Andriyani Saputri¹, Riyadi², Matsuri³

Universitas Sebelas Maret, Indonesia

Email: roseandriyani@student.uns.ac.id¹, riyadi_pgdsd_fkip@staff.uns.ac.id², matsuri@staff.uns.ac.id³

ABSTRACT

Implementation in the era of the 21st-century revolution requires development, knowledge, and skills, with the hope that students are able to think critically and creatively, as well as solve problems and build collaboration together. The purpose of this study is to determine the profile of the driving teacher and the form of development of students' critical thinking skills using the Discovery Learning model in Grade V elementary school students. The research method uses qualitative research, while the data collection technique is conducted through interviews. The results of this study indicate that the driving teacher plays an important role as a facilitator who encourages active, independent, and experience-based learning. They use strategies such as group discussions, trigger questions, and reflection to guide students to find solutions independently. This is in line with the Discovery Learning model, which is designed to improve students' critical thinking skills. The application of the Discovery Learning model shows positive developments in students' critical thinking skills, especially in analysis, evaluation, and problem-solving. Students are more open to different opinions, although self-reflection and creativity need to be improved in some students. In addition, students also show a better understanding of cultural concepts through this approach.

KEYWORDS Driving Teacher, Discovery Learning, Critical Thinking



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International

INTRODUCTION

Education is an effort made to improve the knowledge, attitudes, and skills of teachers and students (Astuti et al., 2017; Rahayuni, 2016; Rojas et al., 2022; Rudibyani et al., 2020; Thomas et al., 2019). The success of education can be seen from the changes in students who are taught during the learning process. These changes can occur with the attention given by teachers in the learning process both inside and outside the classroom. One example of a change that can be made by students to see success is a change in mentality, mutual respect between colleagues, teachers, and students. This mental change can occur when teachers are able to provide good examples by demonstrating professionalism when carrying out the learning process (Priatna & Rahman, 2021; Putu Sutirta et al., 2023; Sinar, 2021; Wardoyo et al., 2017). The formal basis related to education is stated in the National Education System Law Number 20 of 2003 Article 1 paragraph (1) concerning the National Education System, which states that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have spiritual religious strength, self-control, personality, intelligence, noble morals, and the skills needed by themselves, society, nation, and state.

Education aims to help students develop their potential, improve morals, have intelligence, morals, and good personality. This is because education has an important role for humans in life, both in religion and nation, as education can regulate and change a person towards a more advanced and developed life. Teachers have an important role in advancing the quality of education; professionalism can be said to be very influential on the state of educational activities, especially in teaching and learning activities, where teachers are required to have competence in the field of learning, such as mastery in learning planning, processes, strategies, and evaluation (Bratton & Gold, 2017; Chiara et al., 2023; Edison et al., 2021; Mahapatro, 2021; Mathis et al., 2016).

In Indonesia, there have been several changes and developments in the curriculum. This is done so that the existing education system can follow the development and progress of world science and technology. Thus, the country can also compete with other countries in the global competition of science and technology. Curriculum changes occur systematically in accordance with the development of the times and technology. As is known, in 2020 education experienced many changes because of the pandemic (Kurniawaty, 2020). Based on this, it is emphasized that the government is responsible for providing the widest possible access to education for everyone. The government is tasked with creating an education system that ensures equal access to education and improves the quality, relevance, and efficiency of management to answer the challenges of changes in local, national, and global life (Kamaludin, 2022).

Policies and regulations that lead to activities to improve the quality of education (Kurniawan, 2023), one of which can determine the quality of education is the curriculum field. In learning process activities, the curriculum is needed as a guideline for setting targets in the teaching and learning process (Fatih, 2022). Implementation in the era of the 21st-century revolution requires development, knowledge, and skills, with the hope that students can think critically and creatively, as well as solve problems and build collaboration together. Along with the increasingly conducive atmosphere and conditions, the implementation of the *Merdeka Curriculum* was developed.

The *independent curriculum* focuses on freedom and creative thinking. One of the programs presented by the Ministry of Education and Culture in the launch of *independent learning* is the start of the *school movement program* (Rahayu, 2022). With a separate curriculum, the *independent curriculum* is intended to equip students with critical, quality, expressive, practical, diverse, and progressive learning, so that they can develop according to their potential and talents. Thus, students can adopt the character of *Pancasila students*, and the shift in the new curriculum requires cooperation, strong commitment, honesty, and correct implementation from all parties (Kamaludin, 2023). Therefore, teachers are expected to be educators, teachers, mentors, and facilitators, which are among the factors that influence student learning achievement and encourage student motivation in learning.

Therefore, a learning activity is needed that can stimulate critical thinking in students, for example by guiding students to be directly involved in activities that involve students and teachers who act as guides to find concepts. Teachers have a heavy task to achieve national education goals, namely improving quality. Based on initial observations made by researchers, it was found that students had difficulty understanding the material given. This can be seen from the teaching and learning methods used by teachers in the classroom, so that students are

less able to develop critical thinking skills. The causal factors come from two sources, namely from within and outside. Internal factors are caused by a lack of student interest in the learning process, students not concentrating during learning, and students having difficulty remembering the material that has been taught. Meanwhile, external factors can be shown by conventional learning models, namely lectures. Teachers do not apply enough variation in learning, so that students listen more to explanations from teachers and are less actively involved, making them less able to develop critical thinking skills in the learning process. The causes of the low critical thinking skills of students in this problem are due to several things, including students having difficulty in completing and answering the questions given, as well as difficulty in identifying similarities when solving problems related to the lesson (Benyamin, 2021).

Based on data from the *Program for International Student Assessment (PISA)* in 2012, Indonesia's literacy score was ranked 64th out of 65 countries with a score of 382. *PISA* stated that students in Indonesia could only reach level 1 and level 2 out of 6 levels of questions. So, *PISA* concluded that students' thinking skills in Indonesia are very low. However, the results of the 2018 *PISA* study released by the *OECD* show that Indonesian students' reading ability achieved an average score of 371, with an average *OECD* score of 487. For the average mathematics score, it reached 379 with an average *OECD* score of 487. Furthermore, for science, the average score of Indonesian students reached 389 with an average *OECD* score of 489. The 2018 *PISA* data above shows that Indonesia is in the low performance quadrant with high equity. Therefore, Indonesia still has the opportunity to improve its critical thinking skills because it has capacity and potential that has not been developed. According to Azizah & Cintang (2018), critical thinking ability itself is a cognitive process in analyzing problems faced systematically and specifically, as well as carefully and thoroughly. Critical thinking ability is also the ability to identify and examine information to plan ways to solve problems.

This is because during the learning process, students experience boredom and are less enthusiastic about participating in learning. In communicating, teachers are only one-way and do not involve students in the process, so that learning seems less meaningful. Based on this explanation, it shows that there is a relationship between the low level of critical thinking of students and the learning process applied by teachers who still use conventional learning models. Therefore, the importance of critical thinking skills through the education process is to develop attitudes, be able to obtain and integrate knowledge, and be able to solve various problems and issues so that students can compete on a global scale in accordance with the development of the times (Hasnan, 2020).

Therefore, one of the learning models that requires students to be active is the *discovery learning* model. This learning model is a model that involves students in the learning process. This model emphasizes the importance of understanding the structure or important ideas of a discipline through the active involvement of students in the learning process (Liando, 2021). Teachers must be more creative in choosing a learning model that suits the characteristics of the subjects to be delivered. In addition, teachers must also apply group learning, discussions, and experiments. As a good teacher, you are required to be able to create innovative learning so that a conducive learning atmosphere can be created. This is intended so that the expected learning objectives can be achieved.

RESEARCH METHOD

This research used qualitative method; the research strategy employed was qualitative, which had descriptive characteristics. Data collection techniques involved the use of interviews. Data analysis was the process of systematically searching for and compiling data obtained from interviews, field notes, and other materials, so that it could be easily understood and the findings could be conveyed to others (Hardani, 2020). This study was conducted at *X Elementary School*, involving 10 Grade V teachers and 15 students.

RESULT AND DISCUSSION

Based on the results of interviews with several teachers, elementary schools can implement the independent learning curriculum. The independent learning curriculum is a curriculum that is centered on students or learners, has varied learning content, is delivered in a fun way, and is delivered both inside and outside the classroom. Project-based learning that can strengthen skills and encourage students to deepen their learning concepts. Teachers encourage student or learner creativity by providing materials and media that students usually use to create projects. This phenomenon can be seen when teachers provide teaching materials. Students implement the material that has been discussed and explore actual issues, and make good use of technological advances. In this way, students can develop according to their interests and talents, and have critical thinking, become quality, optimistic, positive and creative students (Rahayu et al., 2022).

Teachers can manage all of that through different approaches, strategies, methods and learning techniques, as well as the use of various innovative learning media. This method increases students' enthusiasm for learning and encourages them to be creative and think critically in the learning process so that they can achieve their learning goals. The world of education is closely related to outcomes and goals, including the development of critical thinking skills. Because critical thinking skills allow students to analyze, reason, evaluate, and make decisions to identify strengths and weaknesses that need to be addressed systematically. So that they can find solutions to appropriate problem solving. By implementing the independent curriculum, students can gain new contributions in developing critical thinking skills.

Based on interviews with teachers, there are several points that describe the profile of the Driving Teacher in implementing the Discovery Learning model, namely the application of Discovery Learning, teachers prepare learning by adjusting the material to the context of students' daily lives, providing real problems, and guiding students through the process of exploration, analysis, and reflection. For example, Mr. Teguh uses interactive media and facilitates group discussions to encourage students to think critically and independently. The role of the facilitator, the teacher acts as a facilitator who supports students in understanding the material independently with minimal guidance, such as in the case of Mr. Nanang who prioritizes group discussions to identify problems and draw conclusions. Character development, teachers also integrate Pancasila values and character-based learning in the Discovery Learning model, such as tolerance, cooperation, and responsibility.

In the development of critical thinking skills of students with the discovery learning model, the analysis of the interview results conducted by Axel showed good analytical skills

using books and videos as references. However, he tends not to be reflective and does not provide additional solutions to certain questions. The results of the interview conducted by Bilqis that using various sources such as books, LKS, and cultural experiences. She is quite reflective and has the initiative to provide solutions for. The results of the interview conducted by Bintang that critical thinking and openness to different opinions. However, less reflective in evaluating answers, although he showed a logical problem-solving process. The results of the interview conducted by Citra that has a broad understanding of information from the internet and cultural experiences. However, he needs to strengthen evaluation and alternative solutions to improve critical creative thinking skills. The results of the interview conducted by Dilla showed a focus on book and television sources. Although not providing additional solutions, she is confident in her answers and has good analytical skills.

The results of the interview conducted by Freya, have good analytical and reflective skills. She is also able to provide alternative solutions, such as adding cultural activities. The results of the interview conducted by Kayla, that she is reflective of her answers and open to different opinions. She shows the ability to think creatively with alternative solutions. The results of the interview conducted by Naura show creative thinking and reflection, but need to strengthen the evaluation to support her answers better. The results of the interview conducted by Salma are very reflective and critical in providing solutions. She also uses experiences and facts from various sources. While the results of the interview conducted by Sifa rely on primary references from books and show a logical thinking process. However, she is less reflective and does not provide additional solutions.

From the results of interviews, observations, and student worksheets, the development of students' critical thinking skills can be identified through indicators, namely analytical skills, most students are able to identify important information from various sources, such as books, videos, and direct experiences. For example, students like Axel and Bilqis demonstrate this ability by referring to relevant cultural materials. Evaluation skills, many students provide reasons or arguments to support their answers. However, there is variation in the depth of the arguments, reflecting differences in the level of understanding between students. Problem solving, students' problem-solving processes show logical steps, such as reading, searching for references, discussing, and writing. However, some students need additional guidance to explain the process in more depth. Self-reflection, students like Bilqis and Naura show reflection on their answers, while others still feel confident without further improvement and creative thinking skills, some students propose creative solutions, such as cultural exhibitions and art performances, to support cultural understanding.

CONCLUSION

The findings of this study indicate that the *driving teacher* plays a crucial role as a facilitator, fostering active, independent, and experience-based learning through strategies such as group discussions, trigger questions, and reflection, which align with the *Discovery Learning* model. The implementation of this model led to positive developments in students' critical thinking skills, particularly in analysis, evaluation, and problem-solving, and made students more receptive to diverse opinions, though there remains a need to further enhance self-reflection and creativity in some students. Additionally, students demonstrated a better understanding of cultural concepts through this approach. For future research, it is suggested

to explore the long-term impact of the *Discovery Learning* model on students' creativity and self-reflection, as well as its application across different grade levels and subject areas.

REFERENCES

- Astuti, S. R. D., Suyanta, Lfx, E. W., & Rohaeti, E. (2017). An integrated assessment instrument: Developing and validating instrument for facilitating critical thinking abilities and science process skills on electrolyte and nonelectrolyte solution matter. *AIP Conference Proceedings*, 1847. <https://doi.org/10.1063/1.4983909>
- Benyamin, B., Qohar, A., & Sulandra, I. M. (2021). Analysis of Critical Thinking Skills of Grade X High School Students in Solving SPLTV Problems. *Cendekia Journal: Journal of Mathematics Education*, 5(2), 909–922.
- Bratton, J., & Gold, J. (2017). *Human Resource Management: Theory and Practice* (6th ed.). Red Globe Press.
- Chiara, C., Diego, V., & Mara, S. (2023). Human Resource Management (Human Resource Planning). *Sharia Oikonomia Law Journal*, 1(1). <https://doi.org/10.55849/solj.v1i1.69>
- Edison, E., Anwar, Y., & Komariyah, I. (2021). *Human Resource Management*. Alfabeta.
- Fatih, M. A. (2022). Development of Learning Curriculum Implementation in Integrated Elementary Schools. *Edumaspul: Journal of Education*.
- Hardani, (2020). *Qualitative & Quantitative Research Methods*. Yogyakarta: CV. Pustaka Ilmu Group.
- Hasnan, S. M., Rusdinal, R., & Fitria, Y. (2020). The Effect of Using Discovery Learning Models and Motivation on Critical Thinking Skills of Elementary School Students. *Basicedu Journal*, 4(2), 239-249.
- Kurniawan, A. (2023). *Early Childhood Education*. West Sumatra: Publisher PT Global Executive Technology
- Kurniawaty, I., & Faiz, A. (2022). Strengthening Strategy for Pancasila Student Profiles in Elementary Schools. *Edukatif: Journal of Educational Sciences*, 4(4), 5170–5175.
- Liando, M. A. (2021). Application of discovery learning models to improve student learning outcomes in mathematics. *EduTIK: Journal of Information and Communication Technology Education*, 743-751.
- Mahapatro, B. (2021). *Human resource management*. New Age International (P) ltd.
- Mathis, R. L., Jackson, J. H., Valentine, S. R., & Meglich, P. (2016). *Human resource management*. Cengage Learning.
- Priatna, Y. U., & Rahman, R. (2021). Analysis of Online Based Learning on Teacher Professionalism in Elementary School during the COVID-19 Pandemic. *International Conference on Elementary Education*, 3(1).
- Putu Sutirta, I. N., Suda, I. K., & Indiani, N. M. (2023). Online Learning on Hindu Religious Religion and Thoughts During The Covid-19 Pandemic at Elementary School in Abang District, Karangasem District. *Journal Transnational Universal Studies*, 1(2). <https://doi.org/10.58631/jtus.v1i2.11>
- Rahayuni, G. (2016). The relationship between critical thinking skills and science literacy in science learning is integrated with the PBM and STM models. *Journal of Science Research and Learning*, 2(2), 131–146. <https://dx.doi.org/10.30870/jppi.v2i2.926>
- Rojas, Y. E. U., Leiton-Espinoza, Z. E., López-González, A., Rabanales-Sotos, J., Silva, A. R. F., & Fhon, J. R. S. (2022). Development and semantic validation of an instrument for the assessment of knowledge and attitudes towards cardiopulmonary resuscitation in

- adolescents. *Investigacion y Educacion En Enfermeria*, 40(1).
<https://doi.org/10.17533/udea.iece.v40n1e15>
- Rudibyani, R. B., Perdana, R., & Elisanti, E. (2020). Development of problem-solving-based knowledge assessment instrument in electrochemistry. *International Journal of Instruction*, 13(4). <https://doi.org/10.29333/iji.2020.13458a>
- Sinar, S. (2021). Role of Supervisors in Improving Islamic Education Teachers' Professionalism During Covid-19 Pandemic. *Sukma: Jurnal Pendidikan*, 5(2).
<https://doi.org/10.32533/05205.2021>
- Thomas, J. M., Mecca, M. C., Niehoff, K. M., Mecca, A. P., Van Ness, P. H., Brienza, R., Hyson, A., & Jeffery, S. (2019). Development and validation of a polypharmacy knowledge assessment instrument. *American Journal of Pharmaceutical Education*, 83(5). <https://doi.org/10.5688/ajpe6435>
- Wardoyo, C., Herdiani, A., & Sulikah, S. (2017). Teacher Professionalism: Analysis of Professionalism Phases. *International Education Studies*, 10(4).
<https://doi.org/10.5539/ies.v10n4p90>