

# Classroom Teachers as Learning Leaders in Fostering Higher Order Thinking Skills through Civics Education in Elementary Schools

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## ARTICLE INFO

### Article History:

Received : 09-01-2026

Revised : 27-03-2026

Accepted : 30-03-2026

Online : 10-04-2026

### Keywords:

*Classroom Teachers;*

*Learning Leader;*

*HOTS;*

*Civic Education;*

*Wetlands.*



## ABSTRACT

This study aims to describe the role of a classroom teacher as a leader in the learning process who is able to develop higher-order thinking skills (HOTS) through civic education subjects in elementary schools located in wetland environments. This study uses a qualitative method with a single case study approach, conducted at SDN Sungai Telan Besar 2, Barito Kuala Regency, focusing on a fifth-grade teacher. Data were collected through observation, in-depth interviews, focus group discussions, and a study of various documents. The data were then analyzed using an interactive model developed by Miles & Huberman. The results showed that the teacher was able to design HOTS-based learning, integrate local phenomena such as tidal flooding and the cultural value of Kayuh Baimbai, and lead class discussions democratically by applying Socratic questioning and Problem-Based Learning strategies. In addition, the teacher also encouraged students to think critically through reflection and a culture of questioning. The teacher also played a transformative role by influencing colleagues and involving parents and the community. These findings indicate that contextual, innovative, and adaptive teacher leadership is crucial in developing higher-order thinking skills and shaping student character in areas with special geographical conditions, such as wetlands.



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## A. INTRODUCTION

The educational paradigm in the 21st century requires teachers to no longer merely convey material to students, but to become instructional leaders (Mora-Ruano et al., 2021). This shift in role requires teachers to be able to provide guidance and inspiration to students in the classroom learning process. Teachers as leaders in learning play a role in determining the direction of learning objectives through the creation of innovative strategies and a conducive learning environment to improve the quality of learning (Jiazhi & Batool, 2024). Thus, a teacher's leadership in learning becomes a crucial foundation for supporting the quality of education and the continuous development of student competencies in various fields (Li et al., 2023).

One of the subjects taught in elementary school is Pancasila and Civic Education (PPKn), which plays a crucial role in shaping students' integrity. A study shows that PPKn at the elementary school level has crucial urgency and a positive influence on shaping students' character (Nasution & Yusnaldi, 2024). Through PPKn, students are introduced to the values of justice, honesty, tolerance, diversity, and responsibility, which are the main essence of the Indonesian national identity (Oktaviana et al., 2023; Raesi &

Abdulkarim, 2023). Civics is not just a subject that discusses citizenship, but also serves as a foundation for shaping students' personalities to have noble character and Pancasila values (Ni et al., 2021). This reality makes the position of Civics even more urgent amid the changes of the digital age, which has brought about moral decline.

The development of Higher Order Thinking Skills (HOTS) has become an urgent need. Skills such as critical, creative, analytical, and problem-solving thinking are very important competencies in this complex global era (Ioannou et al., 2025; Kain et al., 2024; Meilindawati & Wijayanti, 2023). The implementation of HOTS-based learning is believed to improve the quality of graduates so that they are ready to face the era of the Fourth Industrial Revolution and the dynamics of 21st-century society (Vlachopoulos & Makri, 2024). International assessment results show that only about 5% of Indonesian students have reached the proficient level in creative thinking, far below the OECD average of 27% (OECD, 2023). This data highlights the urgency of improving learning that trains HOTS from primary education onwards. Teachers are challenged to be creative and persistent in designing, implementing, and evaluating HOTS-based learning. However, the integration of HOTS learning cannot be separated from the context in which the school is located, such as schools located in wetland environments (Imaduddin & Eilks, 2024).

The wetland environment context presents specific challenges in elementary school education practices. Schools located in swampy areas, riverbanks, peatlands, or tidal areas have different characteristics and challenges (Imaduddin & Eilks, 2024). On the one hand, the geographical conditions of wetlands can cause obstacles such as limited access, inadequate infrastructure, or the risk of seasonal flooding that affects the teaching and learning process (Brookfield, 2022; Marcinkowski, 2025). On the other hand, this environment has great potential as a source of contextual learning (Syahmani et al., 2024). Teachers must be able to utilize the surrounding environment as a learning tool, adapt learning strategies to natural and cultural conditions, and ensure that students continue to receive quality learning experiences despite limitations.

The combination of demands to improve the quality of HOTS learning and character development through Civics Education in the context of wetlands makes the role of teachers even more complex and strategic (Sutika et al., 2023). Classroom teachers in elementary schools in wetland environments are not only tasked with being educators, but also facilitators who utilize local conditions as learning advantages (Rusmansyah et al., 2025). Previous studies have examined efforts to improve elementary school students' critical thinking skills through innovative models in PPKn (Ismail et al., 2024). Specifically in wetland environments, very few studies have explored how teachers lead Civic Education learning by utilizing the local context to foster HOTS. In fact, the potential for integrating local issues with citizenship material can be a vehicle for training students to think at a high level while instilling social and environmental awareness (Wardhani et al., 2024).

Despite its potential, there is a research gap regarding how classroom teachers embody the role of instructional leaders to bridge the development of Higher-Order Thinking Skills (HOTS) with the local wisdom of wetlands in Civics Education. This study is urgent given the low creative thinking scores of Indonesian students and the need for adaptive practices in specific geographic areas. The novelty lies in exploring the synergistic relationship between teacher leadership and the living laboratory of wetland environments. Therefore, this study aims to describe in depth the role of classroom teachers as instructional leaders in fostering students' higher-order thinking skills through Civics Education in wetland elementary schools.

## **B. METHODS**

This study applies a qualitative approach using case study methods to gain an in-depth understanding of teachers' learning leadership practices in a specific context, namely, elementary schools in wetland environments (Yin, 2006). The case study approach was chosen because it allows for empirical exploration of contemporary phenomena, such as the role of teachers as learning leaders, in real-life settings (Crowe et al., 2011). The research design used a holistic single case study, focusing on one school, namely SDN Sungai Telan Besar 2 in Barito Kuala Regency. This school was selected purposively because it represented the characteristics of a wetland environment and had classroom teachers as the main subjects of the study. The selection of one school as a single case study allows researchers to conduct a more in depth, detailed and intensive exploration in order to fully understand the uniqueness and complexity of the phenomena within one educational unit, which often cannot be achieved through large scale comparative studies (Yin, 2018).

Participants in this case study consisted of teachers and school members at SDN Sungai Telan Besar 2. The main focus of the study was a fifth-grade teacher who taught civics and was known to be highly initiative in the learning process. This teacher was selected because of her important role as a learning leader in the classroom. In addition, all seven teachers at the school, including the principal (if teaching) and other classroom teachers, were also involved to provide additional insights into the learning atmosphere and cooperation at the school. The researcher also involved six fifth-grade students taught by this teacher as a source of information about their learning experiences.

The main techniques used in data collection for this case study included observation, interviews, focus groups (FGD), and documentation. Observations were conducted in a non-participatory and structured manner using guidelines that covered key aspects such as teacher planning, learning strategies, leadership behavior, and the learning environment. The results of the observations were recorded in detail in field notes and supported by audio or video recordings with permission. Semi-structured interviews were used to explore the teachers' understanding of HOTS and Civics, planning and implementation strategies, leadership roles, experiences using local contexts, obstacles encountered, and the support needed. Interviews with principals and other teachers focused on confirming the role of the main teacher, while interviews with students were conducted through FGDs using simple visual stimuli to explore their experiences and opinions. Documentation in the form of lesson plans, syllabi, worksheets, student work, and photos of activities was analyzed to evaluate planning, the integration of wetland contexts, and the achievement of students' critical thinking skills.

The data was analyzed using the Miles & Huberman interactive model iteratively from data collection until all data was collected. The data was analyzed through three main stages: reduction, presentation, and conclusion/verification. In the reduction stage, raw data, such as HOTS strategies, local wetland contexts, and teacher leadership roles, were sorted and filtered, then clearly categorized. Presentation was in the form of matrices, descriptive narratives, and diagrams to explore the relationships between categories, for example, displaying findings, evidence, and initial interpretations. Preliminary conclusions are made during the interim analysis, then verified through rechecking the raw data, member checking, and triangulation of sources to ensure consistency and credibility. The analysis also included thematic analysis by grouping codes into sub-themes and main themes such as instructional leadership, HOTS strategies, integration of local wisdom, student empowerment, and wetland challenges.

This research took place over one semester in the 2025/2026 academic year, with the preparation stage including obtaining permission from the school, preliminary observations, and establishing relationships with fifth-grade teachers as the main subjects. Data collection was conducted through observations of eight fifth-grade civic education lessons to explore teaching strategies, teacher-student interactions, classroom management, and the application of HOTS and local contexts. In addition, periodic in-depth interviews were conducted with the main teacher regarding background, planning, reflection, leadership strategies, challenges, and innovations. Additional interviews were also conducted with the principal and other teachers regarding the support and exemplary role of the main teacher. Data was also collected through focus group discussions (FGD) with 5-6 fifth-grade students regarding their learning experiences and critical thinking challenges, as well as a documentation study in the form of lesson plans, syllabi, worksheets, student work, photos of activities, and related school policies.

## **C. RESULT AND DISCUSSION**

### **1. The Role of Teachers as Planners and Directors of HOTS-Based Learning**

Research shows that classroom teachers at SDN Sungai Telan Besar 2 play a leading role in the learning process by carefully planning lessons and using strategies that encourage higher-order thinking. The lesson plans focus on analysis and evaluation objectives, such as asking students to analyze the impact of citizens not fulfilling their obligations and to design solutions to raise public awareness. When teaching, teachers begin with an introduction related to students' daily lives, especially regarding flooding. Teachers then facilitate small group discussions to solve real problems. The teacher does not give answers directly, but uses Socratic questioning to guide students to think critically and find solutions. The creative ideas proposed by students are recorded and responded to appropriately, while discussions are organized democratically so that each group can contribute actively. In addition, the teacher applies a problem-based learning (PBL) model that requires students to conduct simple investigations, presentations, and reflections, thereby further developing their critical thinking skills.

These findings show that the role of a teacher as an instructional leader is not limited to preparing lesson plans (RPP), but also includes democratic classroom management and providing opportunities for students to participate actively (Heid et al., 2023; Yuntasilo & Sutheejariyawattana, 2023). The interpretation results show that teachers are able to incorporate local issues, such as flooding, into Civic Education material, thereby encouraging students to think analytically and evaluatively in accordance with HOTS indicators (Utami et al., 2025). These findings are in line with previous studies that emphasize the importance of integrating real-life experiences into Civic Education learning to improve students' critical thinking skills and support a dialogue- and cooperation-based instructional leadership model (Damopolii et al., 2024; Rusmila et al., 2021; Syahminan et al., 2024). However, this study also provides a new perspective by emphasizing the importance of local experiences in the form of wetlands as an effective source of context to enrich classroom discussions. A concrete solution related to limited facilities and geographical obstacles in wetland environments, teacher instructional leadership can be realized through the use of the surrounding environment as a living laboratory and the development of teaching aids based on local materials, which have been proven to be able to overcome the limitations of conventional learning media (Gechere et al., 2025). These results theoretically

reinforce the concept of democratic instructional leadership in problem-based learning, while practically serving as an example for other teachers in designing learning that focuses not only on delivering material, but also on developing HOTS skills and increasing student engagement in solving real problems in their environment (Agusta et al., 2021).

## **2. Integration of Local Wisdom in Civic Education Learning**

One important finding in this case study is the strong level of integration of local wetland wisdom by teachers in teaching civic education. Teachers used the phenomenon of tidal flooding as relevant teaching material by showing videos, then asking students to analyze the problems and the value of cooperation that arose from the situation. Additional questions encouraged students to use their imagination and come up with new ideas, such as forming small volunteer groups or making simple boats from drums. In addition, the teacher also compiled a Student Worksheet (LKS) with the theme “Wetland Environment” which contained questions that led to an analysis of the causes of river siltation, its impacts, and ways to solve it. This teaching material uses the context of the Telan River so that students can more easily understand the material while increasing their awareness of the surrounding environment. The integration of local culture is also evident in the use of the motto “Kayuh Baimbai,” which is instilled in the classroom culture to strengthen cooperation and Pancasila values.

These findings show that CSE learning that combines local wisdom from wetlands not only enriches the subject matter but is also very effective in improving students' higher-order thinking skills (HOTS) (Lestari et al., 2024). The results of the study show that the use of contexts such as tidal flooding and river culture provides real and relevant experiences, thereby helping students to become more critical, creative, and concerned about their surrounding environment (Ardoin & Heimlich, 2021; van de Wetering et al., 2022). These results are in line with previous studies stating that the use of local learning resources can increase the relevance of learning and build ecological character (Wardhani et al., 2024).

However, this study provides a new perspective by emphasizing the cultural motto “Kayuh Baimbai” as a reminder of the value of cooperation in Civic Education learning. These results have a double impact: theoretically, this study reinforces an instructional leadership framework based on dialogue and local context; practically, teachers can use local environmental issues to increase students' awareness, cooperation, and analytical skills (Shim & Thompson, 2025). Thus, the teaching methods in this study affirm the role of teachers as agents of change who are able to connect local culture, the environment, and national educational goals to build a generation that is critical, characterful, and solution-oriented.

## **3. Student Empowerment and Critical Thinking Habits**

The role of teachers as leaders in the learning process can be seen in their efforts to encourage students to become more independent by inviting them to reflect after each learning session. These reflection activities help students improve their metacognitive awareness, recognize their thinking patterns, overcome difficulties, and build a foundation for higher-order thinking skills (HOTS). In addition, teachers also encourage a culture of questioning by asking

each student to ask a question every week, thereby fostering curiosity, courage, and active participation in discussions. This culture shows that teachers have successfully instilled critical thinking and strengthened student independence in learning. Not only in the classroom, but teachers also influence their peers by encouraging the use of active learning methods and promoting the development of literacy programs based on local culture. Thus, teachers act as transformative leaders who are able to improve students' higher-order thinking skills while creating changes in the learning culture at school to be more dynamic and developed.

The results of this study show that the role of teachers as leaders in the learning process is not only about imparting knowledge, but also helping students develop metacognitive awareness through regular reflection activities (Ho & Lau, 2025). This explanation shows that teachers can instill independence in learning and critical thinking skills, which are at the core of HOTS. These findings are in line with previous studies that emphasize the importance of reflection as a way to improve students' self-regulation skills and encourage a culture of questioning in the classroom as a step in developing critical thinking (Fono & Zohar, 2024; Zeng & Ravindran, 2025). However, this study provides a new perspective, namely how reflection and a culture of questioning can increase their impact, not only on students but also on peers through the application of active learning methods and literacy programs based on local culture. The implications of these findings have theoretical and practical impacts. Theoretically, this study reinforces the theory of transformative leadership in basic education, which emphasizes the formation of critical and independent character. Practically, the results of this study show that teachers can be agents of change in the learning culture at school, from mere academic routines to a more active, reflective learning ecosystem that originates from local culture.

#### **4. Contextual and Innovative Learning Leadership**

This study found that classroom teachers at SDN Sungai Telan Besar 2 were able to use the natural environment as a learning tool rather than an obstacle. When high tide flooded the schoolyard, teachers invited students to observe and connect it to civic responsibility, making the material more relevant. The application of the local value of "Kayuh Baimbai" was also integrated into a citizenship campaign project involving students, parents, and the village community. Limited resources did not prevent teachers from innovating, for example, by using a flannel board of Pancasila avatars in a simple role-playing game. The close relationship between teachers and students created an egalitarian classroom atmosphere, where students felt confident to express their opinions without fear of being wrong. Thus, contextual and innovative teacher leadership has proven to be capable of fostering higher-order thinking skills (HOTS) in students in wetland environments.

These findings show that teacher leadership is adaptive and transformative, as it is able to turn physical environmental deficiencies into realistic learning opportunities (Lambrev, 2024). The interpretation of the results shows that tidal flooding, the cultural value of cooperation, and simple innovations can be used effectively to improve higher-order thinking skills, such as critical, creative, and reflective thinking. These findings are consistent with previous studies that emphasize the importance of context-based learning in improving the relevance of

material and strengthening students' civic attitudes, as well as supporting the concept of leadership based on service and personal closeness in creating a positive classroom atmosphere (Jerome et al., 2024; Shabalala, 2025). However, this study provides a new perspective by showing that natural challenges such as wetlands can actually be useful learning media, in contrast to studies in urban areas that focus more on the use of technology and modern facilities. The implications of these findings are both theoretical and practical. Theoretically, this study reinforces the concept of contextual leadership that combines local culture and natural conditions in the learning process. Practically, it provides an example for teachers in other regions to utilize limitations as a source of innovation, while also shaping students' characters to be environmentally conscious and capable of higher-order thinking.

#### **D. CONCLUSION AND SUGGESTIONS**

This study shows that classroom teachers at SDN Sungai Telan Besar 2 play an important role as leaders in the teaching and learning process. They can stimulate higher-order thinking skills (HOTS) through civic education learning. Teachers successfully plan learning activities that aim to analyze, evaluate, and create works. They use contextual approaches, such as studying tidal flooding phenomena and the cultural value of "Kayuh Baimbai," and apply innovative strategies such as Problem-Based Learning. Teacher leadership not only influences the classroom atmosphere but also shapes the learning culture at school through collaboration with colleagues, parental involvement, and innovation based on local wisdom. The results of this study show that by combining nature, culture, and local values, learning becomes more meaningful, shapes better student character, and creates a democratic, solution-oriented, and flexible classroom atmosphere.

From these findings, it is recommended that teachers at the elementary school level, especially in wetland areas, continue to be trained in improving innovative, contextual, and HOTS-oriented learning leadership. Teacher training programs should focus on the utilization of local wisdom, democratic classroom management, and problem-based learning methods that train students' critical, creative, and reflective thinking skills. In addition, further research can explore how the integration of local wisdom in various regions with different geographical conditions can enrich CSE learning practices and improve students' HOTS skills evenly.

#### **ACKNOWLEDGEMENT**

The authors would like to thank all parties, including SDN Sungai Telan Besar 2, who have contributed to the research and preparation of this article.

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